CHAPTER - I

INTRODUCTION

1.1 General Background

Financial liberalization was undertaken by Government of Nepal since 1987/88, with the view to expedite the pace of economic development under the structural adjustment program. The liberalization policy of Government of Nepal has encouraged the private sector to invest in various economic fields, which support the nations overall economic growth. The liberalization policy has attracted no only country's investors but also motivated the foreign investors to work in a partnership basis with Nepalese investors.

Insurance is defined as co-operative device to spread the issues caused by a particular risk over a number of people who are exposed to it and who agree to insure themselves against that risk. Risk is uncertainty of a financial loss. It should not be confused with the chances of loss, which is probable number of losses out of given number of exposures. The insurance has proved a double-edged weapon for socio-economic development of the nation. In one way it provides financial security against the uncertainties to the person industry, commerce and other assets. The function of insurance is to spread loss over a large number of persons who are agreed to co-operate each other at the time of loss. The risk cannot be averted but loss occurring due to a certain risk cannot be distributed among the agreed person.

In Nepal, Oriental Fire insurance company and Nepal Insurance Company worked before Rastriya Beema Sansthan was started. There were only two Nepalese insurance companies, Nepal Insurance and Transport Company and Rastriya Beema Sansthan used to provide life insurance policy.

In 1947 A.D. Nepal Insurance Company Limited was established under the ownership of Nepal Bank Limited. It was renamed to Nepal Insurance and Transport Company. In 1991 A.D. it was renamed again to Nepal Insurance Company. The main objective of the company was to insure fire, marine, motor insurance.In 2044 B. S. National life and General Insurance Company Ltd. was established. The objective is to transact life insurance and non life insurance. It was supported by public, Rastriya Banijya Bank. It was established with the objective of profit earning, to provide protection, development of manpower and contribution towards the national interest.

In 1988, Himalayan General Insurance Company was established. The objective is to provide non-life insurance policies. It was permitted to commence business from 1992 and started from 1993 A.D. Similarly, in 1992A.D. United Insurance Company (Nepal) Ltd. was established. The company has been providing non-life insurance services to the customers. In 1995 A.D. other three companies were established such as the Credit Guaranteed Private Ltd, The Everest Insurance Company Ltd and the Pioneer Insurance Company Ltd. According to registered companies up to year-end of 2003 A.D. about 17 companies are in operation.

The companies are profit-making organization when they earn profit it is distributed to their shareholders. When a company pays out a portion of its earnings to shareholders in the form of a dividend, the shareholders benefit directly. If instead of paying dividends, the firm retains the funds to exploit other growth opportunities. The shareholders can expect to benefit indirectly through future increases in the price of their stock. Thus shareholder wealth can be increased through either dividend or capital gains. The policy of company on the division of its profit between dividend and retention is known as dividend policy. For a company dividend decision is one of the major decisions. It is the earning distributed to shareholders by a company. It may be cash, shares, and securities or a combination of these. Firstly, the company should decide whether the dividend should be paid or not, secondly the management should determine how much should be paid. All aspects and questions related to the payment of dividend are contained in a dividend policy. It includes percentage, timing and method of payment of dividends. Cash dividend and retained earning has a reciprocal relationship if retained earning is kept more by the company less will be cash dividend and vice versa. 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 or company etc.

Dividends have a number of unique advantages over alternative managerial communication. The empirical evidence confirms that alternatives are not perfect substitutes for dividends. Dividends serve as a simple, comprehensive signal of management's interpretation of the firms’ recent performance and its future prospects. The improved corporate dividend practice is thus an essential means to solve the problem of asymmetric information between management of newly established Nepalese companies and Nepalese investors who have poured their funds there in.

In the context of Nepal annual general meeting of the company decide to declare dividend to shareholders, but there are few companies who regularly pay dividend. Most of the companies are operating in loss. But now a day, because of globalization and liberalization, establishment of joint venture companies and development of private sector, there is new trend of distributing dividends. They are conscious about the shareholders satisfaction and their competitiveness.

1.2 Statement of Problem

Dividend decision, however, is still a crucial as well as controversial area of managerial finance. The effect of dividend practices on a corporation's market value is a subject of long standing controversy. There are many empirical studies on a dividend and stock prices in developed capital market. For example, few of them are : Lintner(1956), Modigliani and Miller(1961),Gordon(1962), Friend and puckett(1964), Walter(1966), Vanhorne and Mc Donald(1971), Chawala and Sri Nivasan(1987). However, no simple and conclusive relationship exists between the amount paid out in dividend and the market price of share. There is still a considerable controversy concerning the relation between dividend and common stock prices. The stockholder's point of view, the payment of dividend makes the investors happy but on the other hand the payment of dividend decreases the internal financing required for making investment in good opportunities.

In the context of Nepal, not a single, clear and convincing dividend practices that being followed is not known. Even if dividends affect the forms value unless management knows exactly how they affect value, there is not much that they can do to increase the shareholders wealth. It is partly due to the various government rules and regulations acting and reacting in the financing operations. There is now limit to the identification of the problem about dividend practices that are visible in Nepalese insurance companies. So, it is necessary to analyses the consistency of dividend practices of different Nepalese insurance companies, relation of dividend practices and market value of stock, what are the factors that affect dividend practices and why government law and regulations could not govern dividend practices. The following are major issues and study seeks to answer the following questions:

a. What are the effects of dividend practices on market price of the share?
b. What is the relationship between MPS, DPS & EPS?
c. Is there consistency between dividend practices followed by different insurance companies?
d. What kinds of dividend practices are followed by different insurance companies?

1.3 Objective of the Study

The overall objective of this study is to find out the dividend practice of Nepalese insurance companies. In the context of Nepal it is also necessary to find out that the relationship between dividend and market price with the reference to Nepalese insurance company. The main objective of this study is to focus the light on the aspects.

The specific objectives of the study are as follows:

a. To analyze the current dividend practices of Nepalese insurance companies.
b. To analyze in totality that the effect of dividend to the market price of stock.
c. To analyze the relationship among MPS, DPS and EPS.

1.4 Significance of the Study

Compared to developed countries, the role of the corporate sector in underdeveloped countries is rather limited. Even then the study of the dividend behavior of Nepalese insurance companies is important for several reasons. Firstly, examination of the relationship between dividend and stock price may become an important guideline to management in setting a suitable dividend policy. Secondly, this study provides a clear vision about the dividend practices of Nepalese insurance companies.

So, investor will be simply able to decide about the investment in Nepalese insurance companies. Thirdly, dividend announcements convey information over and above that content in alternative announcement and help to solve asymmetric information problem between management and shareholder. Fourthly, the dividend is important and sensitive element in the field of finance. If the market does not receive its expected dosage, stock price will suffer. Fifthly, finding of this study may help management to compare their own policy with others. At last, it will provide relevant and pertinent literature for future research on the area of dividend. Thus the study of dividend practice and its effect on market price may be very rewarding.

1.5 Limitation of the Study

This study is based on secondary data. For the purpose of secondary data analysis, the data taken from eight listed insurance companies for the period from 2000/01 to 2005/06. For this study, annual report of these companies, journals, published and unpublished thesis works and other published articles and reports and related materials from various websites are used.

There are many factors that affect the dividend policy. Though it is not possible to analyze all factors, the study will be limited to the study of only factors such as earning per share, dividend per share, dividend percent, and dividend payout ratio, Market price per share, Price earning ratio, Earning yield & Dividend yield. The data are taken from Security Board, Nepal Stock Exchange and assumed to be correct and true. So the reliability of the conclusion of the study depends upon the accuracy of secondary data.

The study covers only four insurance companies, which are mentioned below:

a. Nepal Insurance Company Limited (NICL)

b. Himalayan General Insurance Company Limited (HGICL)

c. Premier Insurance Company (Nepal) Limited (PICL)

d. Sagarmatha Insurance Company Limited (SICL)

1.6 Organization of the Study

The study has been organized into five chapters, each devoted to some aspects of the study of dividend policy and practice followed by Nepalese insurance companies. The titles of each of these chapters are as follows:

Chapter One	:	Introduction
Chapter Two	:	Literature Review
Chapter Three	:	Research Methodology
Chapter Four	:	Data Presentation and Analysis
Chapter Five	:	Summary and Conclusions

The contents of each of the chapters of this study are briefly mentioned here.

Chapter One contains the introductory part of the study. As already mentioned this chapter describes the background, major issues to be investigated with the objective and significance of the study.

Chapter Two is devoted to theoretical analysis and brief review of related and pertinent literature available. It includes a discussion on the conceptual framework and review of the major studies.

Chapter Three describes the research methodology applied in the study. This chapter deals with the nature and sources of data, list of the selected companies, the model of analysis, meaning and definition of statistical tools and limitation of the study.

Chapter Four deals with the presentation and analysis secondary data to indicate quantitative facts on dividend practice of Nepalese insurance companies.

Chapter Five states summary and conclusions of the study. This chapter presents the major findings and compares them with the theory and other empirical evidence to the extent possible. It also offers several avenues for future research. The exhibits and bibliography are incorporated at the end of the study.

CHAPTER - II

REVIEW OF LITERATURE

The previous studies are foundation of the present study. There has to be continuity in research where such continuity in research is ensured by linking the present study with the past studies.

In this chapter, some basic and useful related literatures of dividend practices are included. In other words, this chapter includes the theories, the empirical evidence of dividend practices and its effects on market price. Such as government publications, articles, review of journal, dissertations and other business reports are involved in dividend policy. The main purpose of literature review is to find in out that what research studies have been conducted in one's chosen field of study, and what remains to be done, and which provides the foundation for developing comprehensive theoretical framework.

2.1 Conceptual Framework

Company's total net income can be divided into two parts: Earning to be dispersed to the equity shareholders and earning to be kept in the organization. Earnings that are distributed to the shareholders are known as dividend and earning which is kept in the organization is known as retained earnings. Dividend policy determines the division of earning between payments to shareholders 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.

The policy of company on the division of its profits between distribution to shareholders as dividend and retention for investment is known as dividend policy. All aspects and questions related to payment of dividend are contained in a dividend policy. There is a reciprocal relationship between refrained earnings and cash dividends. If retained earning is kept more by the company less will be dividend and vice versa. Dividend decision is one of the three major decisions of the Managerial Finance. It is the sense that the firm has to choose between distributing profits to shareholders and ploughing them back into the business. The decision depends upon the objective of the management for wealth maximization. The firm will use the net profit for paying dividend to the shareholders, if the payment will lead to maximization of wealth of the owners, if not, it is better to retain them to finance investment programs. The relation between dividend and value of the firm should therefore, be the criterion for decision-making.

Dividend policy determines the ultimate distribution of the firm's earnings between retention i.e. reinvestment and cash dividend payment to shareholders. In addition to the declaration of cash dividends, the firm has either option for distributing dividend to shareholders. These options are stock dividend, stick split and stock repurchase. Company's dividend decisions are affected by different factors like legal rules, liquidity positions, rate of assets expansion, profit rate stability of earnings, control need to repay debt, restriction in debt contracts etc. Company follows a certain procedure to distribute the dividend declared by board of directors and this includes: declaration date, holders of record date, ex-dividend date and payment date.

Most shareholders anticipate two forms of return from the purchase of common stock. These are capital gains and dividends. Capital gain may be defined as the profit resulting from the sale of common stock overtime. The shareholders expect, at some point, a distribution of the firms' earnings in the form of dividend. Most investors expect regular dividends to be declared and paid on the common stock. This expectation takes priority over the desire to retain earnings to finance expansion and growth. Thus, shareholders expectation can be fulfilled through either capital gains or dividends since dividends would be more attractive to stockholder, one might think that there would be a tendency for corporations to increase distribution of dividends. But one might equally pressure that gross dividends would be reduced some what, with an increase in net after tax dividends still available to stockholders, and increase in retained earnings for the corporation. It is therefore, necessary a wide policy to maintain a balance between shareholders interest with that of corporate growth from internally generated funds.

2.2 Earnings

Stock price maximization is the major objective of any business organization. It is the key success factors of the organization; No one corporate firm can maximize its stock price unless its profit is maximized. Earning is the basic strategy in the modern firm to sustain and expansion and to meet the expectation of the actual owner. Because of uncertainty in the business entrepreneur hopes for earning as bearing of risk is compensated by means of earning.

2.2.1 Forms of Earning

Earnings broadly can be divided into two parts based on economists' and accountants' views.

i. Accounting Earnings

ii. Economic Earnings

i. Accounting Earning

In corporation with management, the accountant produce on a quarterly basis, a set of financial statement for the firm that ends with a figure for the firms accounting earnings that are known as reported earning. In other word, accounting earning denotes the difference between revenues and expenses, including non-equity expenses such as debt. This difference is divided by number of equity shares outstanding to calculate earning per share. It may also be divided by the book value per share to calculate the return on equity. The relation between accounting earning, dividend and book value of stock can be expressed as follows:

$$E_q = B_t - B_{t-1} + D_t$$

Where,

E_q = Accounting earning for the period of t.

B_t = Book value of the equity of the firm at the end of the period of t.

B_{t-1} = Book value of the equity of the firm at the beginning of the period of t.

D_t = Dividend period during the period t.

ii. Economic Earning

Economic Earning may be defined that earning which is the change in the book value of the firm equaled the change in the economic value of the firm. It can be expressed algebraically as follows:

$$Et = V_t - V_{t-1} + D_t$$

Where,

E_t = Economic earning for the period t.

$V_t - V_{t-1}$ = Change in the market price of the firms common stock. within a given period.

D_t = Dividend paid during the period.

Economic value can also be pronounced as market value. It is sometimes contended that the investors estimate the value of the firms’ common stock by directly applying the formula to the firms’ current and past accounting earnings. This is permissible since the generally accepted accounting principle set by the regulatory authorities allows a large amount of discretion in how certain items are accounted for.

2.3 Dividend

Dividend is the periodic payment made to stockholders to compensate them for their wealth and investment funds. Dividends are pro-rata distributions to shareholders retained earnings. They can be in the form of cash, stock as property. Generally, corporation can only declare dividends out of earnings, although some states laws and compare agreements permit to declaration of dividends from sources other than earnings. *(David & Hawkins; 1997:45)* In fact, dividend is the portion of net earnings, which is distributed to the shareholders by a company. After successfully completing the business activities of a company, if the financial statement of it shows the net profit, the Board of Directors has to declare dividend to stockholders.

2.3.1 Theories of Dividend

There are two fundamental theories regarding to dividend.

i. Residual Theory
ii. Wealth Maximization Theory.

i Residual Theory

Residual Theory is that, in which the first priority is given to the profitable investment opportunities. If there are profitable opportunities the firm invests in those and residual income (if any) is distributed to the stockholders.

Residual theory of dividend means, "A theory that suggests that dividend paid by the firm should be the amount left over after all acceptable investment opportunities have undertaken"

"The starting point in this theory is that investors prefer to have the firm retain and reinvest earning, instead of receiving dividends if the return on reinvestment is higher than opportunity cost of funds for investors" *(Gitman; 1998:83)* The dividend under residual dividend policy equals the amount left over from earning after investment. No dividend is paid and new shares are sold to cover deficit for investment that is not covered by retention of earning. If there is not any profitable investment opportunity then cent percent earnings is distributed to shareholders. Dividend is therefore merely a residual i.e. percent –remaining after all equity investment needs are fulfilled.

ii. Wealth Maximization Theory

Under wealth maximization theory, larger dividends is announced and distributed to shareholders in order to maximize the wealth of stockholders. Basically, it is applicable for those companies, which are just established and to those companies it will be beneficial whose financial profits are in decreasing trends. The main purpose of the wealth maximization theory of dividend is to make assurance to the stockholders that they are interesting in the firm, which has not better market value.

2.3.2 Forms of Dividends

The dividend can be paid in different forms. Among them some are discussed below:-

Cash dividend refers to the portion of earnings paid as cash to the investors in proportion to their shares of the company. It is most popular and widely used form of dividend, all over the world.

Generally, stockholders have strong preference for cash dividend. Both the total Assets and net worth of the company are reduced by same amounts when the cash dividend is distributed. Moreover, the share price will fall after the cash dividend. So the firm should have sufficient fund. For the better cash dividend stability cash planning, budgeting and control mechanism are required. The objectives of cash dividend are as follows:

a) To distribute the earnings to shareholders, as they own the firm in proportion of their shares holdings.

b) To build an image in the capital market so as to create favorable condition to increase the demand for firm's stock.

c) To make distribution and account easy.

i. Stock Dividend

A stock dividend is a payment in the form of additional shares of stock instead of cash. A stock split is essentially the same. When a stock splits, shareholders are given a larger number of shares for the old shares they already own. In either case, each shareholder retains the same percentage of all outstanding stock that he or she had before the stock dividends or split. For e.g. a 10 percent stock dividend would mean that each shareholder was given one share of stock for every 10 shares already owned. Under a two-for-one stock split, each share holder would be given one additional shares of stock for every share already owned, thus doubling the number of shares owned by each share holder. The effect of stock dividend can be outlined into the following points:

- The issue of the stock dividend increases the numbers of the outstanding shares.
- The issues of stock dividend transfer retained earnings to the capital account and additional paid in capital.
- The networth and the par value of the company do not change with the issue of stock dividend.
- The issue of the stock dividend does not affect the stockholders proportional ownership.
- The earning per share will decrease when the total profit remains constant.

The payment of stock dividend does not change cash and earning neither financial position of the firm. Only stockholders capital account is changed. A stock dividend is paid in additional shares of the stock instead of in cash and simply involves a book keeping transfer from retain earning to stock accounts. An analysis of all the benefits and cost of stock dividends depicts the net effect on the value of stock, and provides a basis to issue or not to issue stock dividend.

ii Stock Split and Reverse Split

As mentioned earlier stock split differs with stock dividend in the sense those stock splits do not raring any change in the equity capital account. The effect of stock split is presented as under:

- A stock split increases the number of outstanding shares.
- It reduces the par value and the Market price of the stock.
- It does not change the capital account or the net worth of the company.
- Unless the total earning is increased, the stock split causes a dilution of EPS.

Decision regarding the stock split depends on the expected increase in the price earning ratio.

Stock Split as already mentioned would the adjustable cash and dividend replacement. It helps to satisfy the following three reasons:

- To make the share more attractive, stock split may be practiced by the company.
- Stock split would increase the transaction value of share.
- Stock split is itself the indication of higher profit in future.

When the market price of share of a company is falling gradually, the company may adopt reverse split which may increase the market price per share and help to maintain efficient situation of the company. The reduction of the numbers of outstanding shares by increasing per share value is known as a reverse split.

Practically if the stock dividend is issued the par value remains constant. In case of stock split the par value of the share does not remain constant, therefore, the common stock, paid in capital and retain earnings account also remain same. Except in accounting treatment, the stock dividend and stock split are very similar. A stock split however is usually reversed for occasions when a company wishes to achieve a substantial reduction in the market price per share.

iii Stock Repurchase

It is the alternative to paying dividends. If a firm has same surplus cash, it may choose to buy back some of its own stock. By repurchasing stock, a company is reducing the number of shares outstanding. If the price-earning ratio does not change after the repurchase the stock price must rise. Company can repurchase its shares in two ways:

- Open market repurchase
- Tender (Offer) repurchase

Open market repurchase usually involve gradual programs to buy back shares over a period of time. In tender offer, the company usually specifies the number of shares it is offering to repurchase, a tender price and a period of time during which the offer is in effect.

The repurchase of stock holds major three reasons i.e. for stock option for acquisition and for retiring the stocks. However, Nepalese Company Act 1997, Section 47 has prohibited company for repurchasing its own shares. It states that no company shall purchase its own shares or supply loans against the security of its own shares. If a firm has excess cash and insufficient investment opportunities to justify the use of these funds, it is in the shareholders interest to distribute the funds. The distribution can be accomplished either by the repurchase of stock or by paying the funds our in increased dividends. *(Vanhorne; 1988:101)* A repurchase is a signal that managers, who possess on inside knowledge of the firm, are convinced that their stock is worth more than its current price.

Stock repurchased specially when the firm has abnormally high profits and is not in a position to effectively utilize surpluses. By repurchasing stocks, the remaining stockholders receive future benefits instead of current high dividend. Main features of Stock Repurchase are:

- The repurchases reduce the number of outstanding stocks.
- It increases the proportional ownership of existing stockholders.

  It increases the stock price as net worth per share increase.

iv. Scrip Dividend

Scrip dividend means payments of dividend in scrip or promissory notes. Because of temporary cash shortage, some times the firm needs cash generated by business earnings to meet different requirements. For these requisites, scrip dividend is issued promising that the payment will be made in future. The scrip has the definite maturity date and may be of either interest bearing or not. But in financial practice it is relatively scares. Scrip dividend can be summarized as following:

- It is the replacement of the cash dividend for short period.
- Scrip dividend may be either interest bearing or not.

This type of dividend does not change the total numbers of the stock but issues promissory note in the proportion of share held by the stockholders. Scrip dividend has relatively low psychological value in the stockholders perception than other forms of the dividends.

iii. Property Dividend

If the company pays the dividend in the forms of assets to its stockholders other than the cash is known as property dividend. In this practice, assets, which are superfluous for the company, are distributed as dividend to the stockholders, and in some cases the company pays the subsidiary company's shares. But the shares have to be owned by the company. Property dividends are also least used practice and used when extra-ordinary circumstances exit. Property dividend may have the following natures:

- It should match the requirements of the shareholders otherwise it reduces the charming of the cash dividend replacement.
- Perception value of property dividend cannot be same as cash dividend.
- Property dividend is least applied to replace cash dividend; therefore sometimes it may have (not need) positive response by the investors.

v. Bond Dividend

If dividends are paid in the form of bond, promising that it will mature in future date is known as bond dividend. Therefore the intention and purpose of bond dividend is also the postponement of dividend payment for some time. Bonds used to pay dividend carries interest and it means that the company assures the fixed obligation of interest payment annually and principal amount of bond at maturity date. Bond dividends are the means to dividend postponement for a while but more it is obligation.

It couldn't bring back the psychological value as the cash dividend. Bond and scrip dividend are same, only the difference between these are maturity time i.e. scrip has relatively less maturity time than bond dividend.

2.4 Developing Dividend Policies

The dividend practice should reflect the different factors as well as the firm's present operating and financial position. In this total framework, the firm finds that it has a choice of several dividend policies to follow. These are as follows:

i. Stable Dividend policy
ii. No Immediate Dividend policy
iii. Regular stock dividend Policy
iv. Irregular pay dividend policy

i. <u>Stable Dividend Policy</u>

a) Stable Dividend per share:-

When a firm pays a fix amount of dividend per share over the year and does not change it with fluctuations in the level of its earnings, it is said to have persuade a relatively stable dividend policy. The most popular kind of dividend policy is one that pays a regular steady dividend. *(Barley & Nyeys; 1988:34)* This policy is completely rational policy and poses the strategic financial management; therefore, it is related to the company's ability to pay dividends.

b) Stable Payout Ratio:-

If the firm distribute a certain percentage of its profit as dividend in every year is known as stable payout ratio. The ratio of dividend to earning is called payout ratio. If the firm simply applied the target payout rate to each year earnings, dividend could fluctuate widely.

c) Low Regular Plus Extra Policy:-

If the company usually pays dividend constantly to stockholders at a fixed rate do not change the payout ratio unless it is believed that the changes in earnings are permanent. When the earning of a firm is swelling, it may decide to distribute a part of increased earnings. It will be in addition to regular dividend and may not be paid next year. Firm pays regular dividend, when business earning will drop to normal level. It could be the better policy to that company whose stockholders prefer at least a certain amount of regular income as return.

i No immediate dividend policy

If the company do not declare dividend unless the company earn large income is called no immediate dividend policy. In other words, if there is not any hurry about dividend payment and if it could be only when the company earns more profit is known as no immediate dividend policy.

ii. Regular Stock dividend Policy

If the company regularly pays dividend to its shareholders in stock instead of cash, then it is called regular stock dividend policy. Regular stock dividend policy is also designated as bonus share.

iii. Irregular pay dividend policy

It is the policy in which, the firm does not pay any fixed amount of dividend every year or dividend varied in correspondence which change in level of earnings i.e. higher earnings means higher dividend and vice-versa.

2.5 Factors Affecting Dividend Policy

While establishing a dividend policy in any organization, various factors should be taken into consideration. Dividend is not decision, which is influenced by internal as well as external factors. Management has to consider both economic and non-economic factors before establishing any dividend policy. To maintain the balance between both, companies' need as well as investor's expectation, the following matters and circumstances are to be considered.

a. Shareholder's Expectations

Shareholders may have different expectations as per their economic status and the effect of tax differential on dividend and capital gain. A retired shareholder may require regular dividend while a wealthy shareholder may prefer the capital gain benefit.

b. Stability of Earnings

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

c. Liquidity positions

The cash or liquidity position of a firm influences its ability to pay dividends. A firm may have sufficient retained earnings, but if they invested in physical assets cash may not available to make dividend payments.

d. 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, find that "managers strongly agree with the statement that a firm should attempt to maintain an persistent record of dividend payments."

e. Legal Provisions

Dividend declaration is not only the concern of shareholders and company, but it is also the issue of the government regulation. Therefore the government may put some criteria to the company for the announcement of the dividend either in company act or by government itself.

f. Profit Rate

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

g. Access to the Capital Market

A company having the ability to liquidate can still pay dividend if it is able to raise debt or equity from the capital markets. It also provides flexibility in the financial position of the firm, which in fact could meet the desires of the stockholders as well as the firm’s obligations. Reputation of a firm in the capital market always make easy to raise funds and funds availability helps to meet both requirement as mentioned before.

h. Investment opportunities in the Company

Over the life cycle of a company, it is expected that no dividends is to be paid early on because of investment opportunities in the company. As it matures and begins to generate excess cash, dividends are paid a token dividend at first, but bigger ones as relatively fewer productive investment opportunities are found. In the late stages, "harvesting" may occur.

Here a company self liquidates by paying substantial dividends to its stockholders. Even for "non-harvest" situations, it would be expected the mature company to pay sizable dividends.

i. Restriction in Loan Agreement

Lender may generally put restriction on dividend payment to protect their interest when the firm is experiencing low liquidity or low profitability. As such the firm agrees as a part of debt contract with a lender to restrict the dividend payment. Therefore, when the restriction of this type is put, the company is faced to retain the earning and have low payout ratio. The new corner firms and the firm having low liquidity and inefficient funds basically apply it.

j. Control

With a liberal dividend policy a company increases the probability of raising fresh capital at some future date. If the current shareholders cannot subscribe to the new shares, new stakeholders can dilute their wealth and controlling interest in the firm. Thus shareholders who are very sensitive to a potential loss of wealth and control prefer a low dividend payout policy.

k. 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 and even for meeting the cash requirement for the regular operation of business.

l. Taxes

As mentioned earlier dividend income may be taxed with high percent rate. Similarly the dividend income is added in the ordinary income and ordinary incomes are taxed in the higher rate than capital gain tax. Therefore, if the principal shareholders of the firm are of high taxpayer, the firm may retain more and vice-versa.

m. Concern about market Price

To the extent that there are insights into the effect of dividend on valuation, they may be gathered. If a firm finds that payment of cash dividend increases the stock prices, it may elect to pay dividends[1] and vice versa.

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[1] Adhikari Nabaraj "Corporate dividend practices in Nepal" A Master Degree Thesis, P. 21.

n. Rate of Asset Expansion

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

2.6 Legal Provisions Regarding Dividend Practices in Nepal

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

- ***Section 2 (M)*** states that bonus shares mean 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[2].
- ***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 share.
- ***Section 137*** Bonus Shares and sub section (i) states that the company must inform the office before issuing bonus shares. Under subsection (i), this may be done only according to a special resolution passed by the general meeting.
- ***Section 140***: Dividends and subsection of this section are as follows:

  <u>Subsection 1</u>: Except in the following circumstances dividend shall be distributed among the shareholders within 45 days from the date of dividend decision, unless

  - Any low forbids the distribution of dividend,
  - The right to dividend is disputed,
  - Dividends can not be distributed within the time limit mentioned above owing to circumstances beyond any ones control and without any fault on the part of the company.

[2] Endi Consultants Research Group Kathmandu, Nepal, *Nepalese Company Act-1997*, Nepal for profitable investment page-43, 60, 94-95.

Subsection 2: In case dividends are not distributed within the time limit mentioned in subsection (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 dividend shall be entitled to receive dividend.

2.7 Review of Related Studies

There are two opinions regarding to the dividend payout and market value of shares. One point of view is that dividends are irrelevant and the amount of dividend payout does not affect the market value of the share. The other is dividend are relevant and the amount of dividend paid affects the market value of share.

This section is devoted to the review of the major studies in general concerning dividends and stock prices. Therefore, some of the main researches are going to be discussed below.

2.7.1 Review of Major International Studies

i. Linter's Study[3]

Linter (1956) made an important study focusing on the behavioral aspect of dividend policy in the American context. He investigated a partial adjustment model as he tested the dividend pattern of 28 companies. He concluded that a major portion of the dividend of a firm could be expressed in the following way:

$$DIV^*_t = EPS_t \quad - \quad (1)$$

$$\text{And } DIV_t - DIV_{t-1} = a + b\,(DIV^*t - DIV_{t-1}) + e_1 \quad - \quad (2)$$

$$\text{Or, } DIV_t = a + b\, DIV^*_t + (1-b)\, DIV^*_{t-1} + e_1 \quad - \quad (3)$$

Where,

DIV^*_t is firms desired payment, EPS_t is earnings,

a is constant relating to dividend growth and

b is the adjustment factor relating to the previous periods dividend and new desired level of dividends where $b<1$.

The major findings of this study where as follows:

- Firms generally think in terms of proportion of earnings to be paid out as dividend.

[3] Linter J., "Distribution of incomes of corporations among dividends retained earning and Taxes American Revies 1956."

- Investment requirements are not considered for modifying the pattern of dividend behavior.
- Firms generally have target payout ratios in view while determining change in dividend per share (or dividend rate).

ii. <u>Modigliani and Miller's Study</u>

It has been argued that dividend policy has no effect either on the price of a firm's stock or its cost of capital that is, dividend policy its irrelevance. This theory was first introduced by Franco Modiglani and Merton Miller in 1961 and popularly known as M-M Approach. Through an article "dividend Policy, growth and valuation of shares" they 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. The M-M approach focuses the irrelevant effect of dividend policy in the firm's valuation arguing that the value of the firm is determined only by its basic earnings power and its business risk, thus, the value of the firm depends on the income from assets and not on how this income is split between dividends and retain earnings. M-M approach is based on the following assumptions:

- Perfect capital market in which all investors are rational. Information available to all at no cost, instantaneous transaction without costs, infinitely divisible securities and no investor large enough to affect the market price of the security.
- An absence of floatation cost on securities issued by the firms,
- A world of no taxes,
- A given investment policy for the firm, no subject to change,
- Perfect certainty by every investor as to future investment and profits of the firm. (But M-M dropped this assumption later).

M-M had tried to prove their theory by different models of those some are explained below.

Market value of Share (MPS)

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

$$P_o = D_1+P_1/1+K_e \qquad - \qquad (1)$$

Where,

P_o = Market price at the beginning (zero period)

K_e = Cost of equity capital (assumed constant)

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

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

No external financing

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

$$nP_o = n(d_1+p_1)/1+Ke \qquad - \qquad (2)$$

Where,

n = numbers of equity shares at zero periods.

New Shares

Assuming that the retained earnings is not sufficient to finance the investment needs of the funds, in that case issuing new shares is the other alternative.

$$np_0 = nd_1+p_1\,(n + m)\text{-}MP_1/1+k_e \qquad - \qquad (3)$$

Where,

n = no of share at the beginning

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

Total number of Shares

The issuing of new stock is determined by the amount of investment in period 1 not financed by retained earnings. The total numbers of new shares can be found by the following way :-

$$Mp_1 = I - (E\text{-}nd_1) \qquad - \qquad (4)$$

Where,

MP_1 = the amount collected by issuing new shares.

I = total new investment requirement

E = earnings of the firm during the period

Nd_1 = Total dividend paid

$E\text{-}nd_1$ = retain earning

Conclusion

By substituting the value of MP_1 from equation (4) to the equation (3), we find $np_0 = nd_1+P_1$ (M+N)-I+E-nd_1/1+ke = p_1 (M+n)-I+E/1+ke

In such a way, M-M approach concludes its result, that there is not any role of dividend (d1) in the above equation. So, Modiglani and Miller conclude that dividend policy is irrelevant and dividend policy has no effect on the share price. *(Vanhorne ;2000: 55)*

iii Walters Study

Professor James E. Walter studies on dividend and stock price in 1966. Walter argues that dividend policy always affects the value of enterprises. The investment policy of a firm cannot be separated from its dividend policy. His argument is just the opposite of what Modigliani and Miller said. Walter argues that dividend policy affects the stock price. i.e. dividend is relevant and it affects the stock prices. The relationship between firms' internal rate of return and cost of capital is determining factors to retain profit or distribute dividends. As long as the internal rate is greater than the cost of capital the stock price will be enhanced by retention and will vary inversely with dividend payout. This model is based on following assumptions:

- Retained earning constitutes the exclusive sources of financing firm does not use debt or equity financing.
- The firm's internal rate of return and its cost of capital are constant.
- The firm distributes its entire earning or retains it for reinvestment immediately.
- There is no change in values of earning per share and dividend per share.
- Perpetual life of the firm

Considering the above assumption, Walters model determines the market price per share as :-

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

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

Where

P	=	Market price per share
DPS	=	Dividend per share
EPS	=	Earning per share
r	=	internal rate of return
k	=	cost of capital

According to him the firm may have three situations.

a) Growth firm (r>k)

If the firms internal rate of return, such firms are known as growth firm. Growth firms are those firms, which expand rapidly and earn ample investment yields higher than the opportunity cost of capital. Here the relationship between dividend and stock prices will be negative; i.e. more dividends lead to low stock prices. Walter argued that zero dividends would maximize the market value of shares for growth firm. It is because the earning rate of reinvestment of earning exceeds the cost of capital.

b) Normal Firm (r=k)

If the firm has r =k, there is no role of dividend on stock prices, i.e. dividends are indifferent from stock prices. Dividend payout doesn't affect the value of share. Whether the firm retains the profit or distributes dividends is a matter of indifferences. This kind of firm is known as normal firm. It is because the earning rate of reinvestment of earning will be equal to the cost of capital.

c) Decline Firm (r < k)

If the firm's internal rate of return is less than the cost of capital such firms are referred to as declining firm. The relationship between dividend and stock prices is positive i.e. retention of earning results decrease in stock prices. This kind of firm does not have profitable investment opportunities. So the shareholders will be better of its earning are paid to them so as to enable them to earn a high return by using the funds elsewhere. Here the optimum payout ratio will be 100%. It is because the earning rate of reinvestment of earning will be less than the cost of capital of such firm. *(Walter;1966: 23-25)*

iv Gordon's Study

Myron Gordon has developed another popular and important model relating to the stock valuation using the dividend capitalization approach. Gordon concludes that dividend policy does affect the value of shares even when the return on investment and required rate of return are equal. He explains that investors are not indifferent between current dividend and retention of earnings with the prospect of future dividends, capital gain and both. The conclusion of this study is that investors have a strong preference for present dividends to future capital gains under the condition of uncertainty. It is assumed that current dividend is less risky than the expected capital gain. His argument stresses that an increase in dividend payout ratio leads to increase in the stock price for the reason that investors consider that the current dividend yield is less risky than the expected capital gain. *(Pradhan; 1999:101)*

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 to differed dividend in future. The future is uncertain. The investors would naturally like to avoid uncertainty. So the current dividends are given more weight than expected future dividend by the investors. So the value per share increases if dividend payout ratio increases. This means there exists positive relationship between the amount of dividend and stock prices. Basic assumptions of this model are as follows. *(Clark; 1972: 71)*

- The firm uses equity capital only.
- Internal rate of return (r) and cost of capital (ke) are constant.
- The firm and its stream of earnings are perpetual.
- There is no tax on corporate income.
- The retention ratio (b) once decided upon is constant. Thus the growth rate (g=br) is constant forever.
- 'ke' must be greater than g (=br) to get meaningful value.
- 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)

First 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 decreases as the retention ratio (b) decreases i.e. high 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.

Second 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 and stock price are free from each other in normal firm i.e. r=k firm.

Third case: Decline Firms (r<k):

In case of declining firms share price tends to enhance with increase in payout ratio (1-b) as decrease in retention ratio (b). so dividends and stock prices are positively correlated with each other in decline firm i.e. r= k firm.

v. Friend and Puckett's Study

Friend and Puckett 1964 concluded a study on the relationship between dividends and stock prices, by running regression analysis on the data of 110 firms from five industries in the years 1956 and 1958. These five industries were chemicals, electric utilities, electronics, food and steels. These industries were selected to permit a distinction made between the results for growth and non-growth industries and to provide a basis for comparison with result by other authors for earlier years. They also considered cyclical and non-cyclical industries, which they covered. The study periods covered a boom year for the economy when stock prices leveled off after rise (1956) and a somewhat depressed year for the economy when stock prices, however, rose strongly (1958).

They used dividends, retained earnings and price earning ratio as an independent variables in their regression model of price function. They used supply function, i.e. dividend function also. In their dividend functions, earnings last year's dividends and price-earnings ratio are independent variables. They quoted that the dividend supply function (equation) was developed by adding to the best type of relationship developed by Lintener.

Symbolically, their price function and dividend supply functions are,

Price function:

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

Where,

P_t = per share price at time t.

D_t = Dividends at time t.

R_t = Retained earnings at time t.

$(E/P)_{t-1}$ = lagged earnings price ration.

Dividend supply function:

$D_t = a+bE_t+gd_{t-1}+h\ (E/P)_{t-1}$

Where,

E_t = Earnings per share at time t.

D_{t-1} = last year dividend

Their study was based on the following assumption:

- Dividends do react to year-to-year fluctuations in earnings.
- Price doesn't contain speculative components.
- Earnings fluctuations may not sum zero over the sample.

Their regression results based on the equation of $P_t = a+bD_t+Cr_t$ showed the customary strong dividend and relatively weak retained earnings effects in three of the five industries, i.e. chemicals, foods and steels. Again they tested other regression equations by adding logged earnings price ratio to the above equation and resulted the following equation: $P_t = a+bD_t+CR_t+d(E/P)_{t-1}$. They found the following result: They found that more than 80% of the variation in stock prices can be explained by three independent variables. Dividends have a predominant influence on stock prices in the same three out of five industries but they found the difference between the dividend and retained earnings coefficients are not quite so marked as in the first set of regressions. They also found that the dividends and retained earnings coefficient are closer to each other for all industries in both years except for steels in 1956 and the correlation are higher, again except for steels.

They also calculated dividend supply equation, i.e. $D_t = a+bE_t+gD_{t-1}+h\ (E/P)_{t-1}$ and the derived price equation for four industry groups in 1958. In their derived price equation it seems that there was no significant changes from those obtained from the single equation approach as explained above. They argued that the stock prices or more accurately the price earnings ratio does not seem to have a significant effect on dividend payout. On the other hand, they noted that the retained earnings effect is increased relatively in three of the four cases tested. Further, they argued that their results suggested price effect on dividend supply are probably not a serious source of bias in the customary derivation of dividend and retained earnings effect on stock prices, though such a bias might be marked if the disturbing effect of short run income movements are sufficient great. *(Clark; 1972: 675)*

Further, they used lagged price as a variable instead of logged earning price ratio and showed that more than 90% of variation in stock price can be explained by the three independent variables and retained earnings received greater relative weight than dividends in the most of the cases. The only exception was steels and foods in 1958. They considered chemicals, electronics and utilities as growth industries, in these groups and the retained earning effect was larger than the dividend effect for both years covered. For the other two industries, namely foods and steels, there was no significant systematic difference between the retained earnings and dividend coefficients.

Similarly, they tested the regression equation of $P_t = a+bD_t+Cr_t$ by using normalized earnings again. They obtained normalized retained earnings by subtracting dividends from normalized earnings. That normalization procedure was based on the period 1950-1961. Again they added prior years normalized earnings price variable and they compared the result comparing the result they found that there was significant role of normalized earnings and retained earnings but effects of normalized price earnings ratio was constant. When they examined the later equation, they found that the difference between dividend and retained earnings coefficients disappeared. Finally they concluded that management might be able to increase prices somewhat by raising dividends in foods and steels industries.

They conducted more detailed examination of chemical samples. That examination disclosed that the result of obtained largely reflected the undue regression weighting given the three firms with price deviating most from the average price in the sample of 20 firms and retained earnings as a price determined.

Finally, Friend and Puckett concluded that, it is possible that management might be able, at least in some measures to increase stock prices in non-growth industries by raising dividend and in growth industries by greater retention, i.e. low dividends.

vi. Joseph & Itzhok's Study

These two people had focused on two devices, which are used widely in the firms. The manager poses inside information about their firm's future prospects and for that purpose various signaling devices are used and information conveyed to the public. As mentioned above, the two devices are:

- Earnings
- Dividends

The information content of dividend hypothesis asserts that managers use each cash dividend announcement to signal changes in their expectations about future prospects of the firm. The concentration about information broadly emphasized on the hypothesis that, since dividend decisions are almost solely as management's discretion, announcement of dividend changes should provide less ambiguous information signal than earnings numbers, If dividend convey useful information to the public, the same effect can be seen in stock prices which are changed after public announcement. The main focus of this study is to ascertain whether dividend changes provide information beyond that already provided by quarterly earning numbers. These two people believe dividend and earnings have signaling effect in the practice and thinking of people with regards to the future prospects of the firm.

They have explained their arguments through data collection and analysis for their purpose, they had grouped the sample data according to the dividend change from one quarter to the next and by the numbers of trading days between earnings and dividend announcement date in any given quarter.

The sample includes 2612 dividend announcement that follow (panel A) and 787 that precedes (panel B) quarterly earnings announcement by 11 trading days among these:

384	-	Increases
47	-	Decreases
2968	-	Case of no change in dividend

Panel A

- ❖ This includes those companies, which announce dividend with no changes.
- ❖ Stockholders of such companies earn on average.
- ❖ Only normal returns as predicted from the market model over the 20 days surrounding the announcement dates.
- ❖ The cumulative effect of the abnormal returns during this period is of small magnitudes.
- ❖ The average return do not defer significantly from zero.

These results are similar whether earnings announcement precede or follow dividend announcement.

Panel B

- ❖ Shareholder of the companies that announce increase realize on average.
- ❖ Positive abnormal returns over 20 days surrounding announcement dates.
- ❖ Most of the statistically significant abnormal returns occurred during days A.D-1 &A.D.

Moreover, they are of similar magnitude for both groups whether earnings announce precede or follow dividend announcement. Therefore, one noticeable result is that abnormal returns for the decrease occurred during the day A.D.-1 and A.D. and they are of similar magnitude for both groups. The capital market reaction to dividend announcement like this, support the information content of dividend hypothesis, namely that changes in quarterly cash dividends to provide information about changes in managements assessment of future prospects of the firm.

The study also focuses or emphasizes the quarterly dividend announcement contain useful information beyond that already provided by quarterly earning numbers. Both writers believe that ever earning announcement also affect the market price of the share. For this purpose, stock prices just before and after announcement were taken to analyze. In the same way, our practice is also none other than “Announcement of increase in earnings causes increase in market price of the share and vice-versa."

vii. Van Horne and Mc Donald's Study

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

Empirical tests were performed with year-end 1968 cross sections for two industries, using a well-known valuation model. For these investigations, they employed two samples of firm's viz. the 86 electric utilities in the continental U.S. which were included on the compustat utility data tape and 39 companies in the electronics and electric component industries as listed on the compustat industrial data tape in 1968.

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

The first model was,

$$P_o/E_o = a_o+a_1 (g)+a_2(D_o/E_o)+a_3(lev)+u$$

Where,

P_o	=	closing market price in 1968 divided by average EPS for 1967 and 1968.
G	=	expected growth rate, measured by the compound annual rate of growth in assets per share for 1960 through 1968.
D_o/E_o	=	Dividend payout, measured by cash dividend in 1968 divided by earnings in 1968.
Lev	=	Financial risk, measured by interest charges divided by the difference of operating revenues and operating expenses.
U	=	error term.

The second model was,

$$P_o/E_o = a_o+a_1(g)+a_2(D_o/E_o)+a_3(lev)+a_4(f_a)+a_5(f_b)+a_6(f_c)+a_7(F_a)+u$$

Where,

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

It is noted that they had grouped the firms in five categories A, B, C, D and E by NIR for each firm the value of dummy variables representing its NIR group is one and the value of remaining dummy variables are zero. Again, they tested the following regression equation for electronics-electronic component industry.

$$P_o/E_o = a_o+a_1(g)+a_2(D_o/E_o)+a_3(lev)+a_4(Or)+u$$

Where,

Lev = financial risk, measured by long term debt plus preferred stock divided by net worth as the end of 1968.

O_r = Operating risk, measured by the standard error for the regression of operating earnings per share on time for 1960 through 1968, and rest are as in first model above.

By using these models, they compared the result obtained for the firms which both pay dividend and engage in new equity financing with other firms in an industry sample. They concluded that for electric utility firms in 1968, share value was not adversely affected by new equity financing in the presence of cash dividends, except for these firms in the highest new issue group and it made new equity a more costly form of financing than the retention of earnings. They also indicated that the payment of dividend through excessive equity financing reduces share prices. For firms in the electronics electronic component industry, a significant relationship between new equity financing and value was not demonstrated. *(Van Horne and John ; 1971:517)*

viii. <u>Watt's Study</u>

Ross Watt's study of an annual dividend model is some how disagreed by Michael Laub. He disagrees with watt's specification of an annual dividend model instead of quarterly dividend model and with his conclusion that information content of dividend is trivial.

Laub placed his views by "Reinterpretation of watt's study" and gave some empirical evidences for his argument. But watt denied Laub's views and for the said, neither his evidence nor "Re-interpretation" indicates the superiority of a quarterly dividend model or the non-triviality of the information contents in dividend. It means the specification of the dividend earning relationship is important and the result of any dividend information content study depends crucially on the approach used.

RBS watt in his own way had interpreted quarterly versus annual dividend model and adds:

- ❖ The accountants tend to base their accounting procedures for the calculation of the earnings on one-year periods.
- ❖ The quarterly earnings often include in their calculations simple extrapolation of many of the preceding year's expenses.
- ❖ As a consequence, and expectation of future annual earnings based on quarterly earnings may / will be less efficient than such an expectation base on annual earnings which that extrapolation are absent.

Therefore, it is the case; management may prefer to wait for the determination of annual earnings before changing regular dividends.

In regards to quarterly earnings, he further arose a problem. The problem is that: there may be a seasonal component in those earnings and in order to interpret any change in quarterly earnings, an estimate must be made of seasonal component. It may encourage management to wait for annual earnings to determine whether to change dividends.

Watt points out, two third of the regular dividend changes and nineteenth of extra dividend declarations occur in the first and last quarters which give the evidence of management for annual dividend rather than quarterly model of Laub. Therefore, according to watt, if Laub's dispute were valid, it would not affect stock price tests. Watt said in conclusion, nothing would cause watt to change the conclusion of his paper.

ix. <u>Lamon's Study</u>

The study shows that the aggregate dividend payout ratio forecasts excess return on both stocks and corporate bonds. It is to mean, high dividend forecast high return and high earnings forecast low return. The correlation of the earnings with business conditions gives them predictive power of returns; they contained information about future returns that is not captured by other variables. Dividend and earnings contribute explanation power at short horizon stock price matters. There are two seasons, why the payout ratio forecast return i.e.

- ❖ The payout ratio forecasts return because the level of dividends forecasts return. High dividend predicts high future return.
- ❖ The payout ratio forecasts return because the level of earning forecasts return.

<u>Conclusion of the Study</u>

The dividend payout ratio helps forecast return because both dividends and earnings have separately identifiable forecasting ability.

a. Dividend contains information about future returns because the help measure the value of future dividends while earnings contain information because they are corrected business conditions.
b. Both high current prices and high current earnings forecast low future returns.
c. Using earnings yield alone to forecast return is a bad idea.

d. High dividends forecast high future returns so using dividend yield alone to forecast return are more successful.

e. Dividend price by any smooth accounting variable capturing normal growth procedures roughly the same forecasting variables.

x. <u>Chawla and Srinivasan's Study</u>

Chawla and Srinivasan's study the impact of dividend and retention on share price. They estimated cross section relationship for the year 1969 and 1973 at 18 chemicals and in sugar industries. The objectives of their study were:

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

“To achieve the above mentioned objectives, they used simultaneous equation model as developed by friend and pucket in 1964". The model in its specified form was as follows:

Price function:

$p_t = f[d_t, R_t, P/E\ (t-1)]$

Dividend Supply function:

$D_t = f[E_t, D(t-1), P/E(t-1)]$

Where,

P = Market price per share

D = Dividend per share

E = Earning per share

P/E = Deviation from the sample average of prices earning ratio.

T = Subscript for time.

They used two stage least square technique for estimation and in case of chemical industry. They found the estimated co-efficient and the correct sign and coefficient of determination of all the equations were very high. It implies that the stock price and dividend supply variation can be explained by their independent variables. But in case of sugar industry they found that the sign for the retained earning negative in both year. So they left sugar industry for further analysis. For chemical industry, they observed that the coefficient of dividend was very high as compared to retained earnings. They also found that coefficient of dividend was significant at one percent level in both years whereas coefficient of retained earnings was significant at ten percent level in 1969 and one percent level in 1973. Finally they concluded that the dividend hypothesis holds good in the chemical industry. Both dividend and retain earnings significantly explain the variation in share price in chemical industries. (*Chawla & Srinivasan; 1987:Vol 14 No.3)*

xi. <u>R. P. Mahapatra and P. K. Sahu's study</u>[4]

R. P. Mahapatra and P. K. Sahu studied on determinants of corporate dividend behaviour in India – an econometric analysis. The objectives of their study were as follows:

- ❖ To examine the relative significance of some known dividend models in Indian situation.
- ❖ To enquire into the determinants of corporate dividend behavior with the help of some known regression models.

Their study was based on a judgmental sample of 90 companies for the period 1977-78 to 1988-89. They collected the data from various volumes of Bombay stock exchange official directory, covering a period of 12 years i.e. from 1977-78 to 1988-89.

The known dividend models they found used to examine the relative significance in the Indian situation were as follows:

<u>Linter's Model:</u>

$D_t = a_o+a_1p_t+a_2\ d_{t-1}+U_t$ - (1)

<u>Brittains Cash flow Model:</u>

$D_t = a_o+a_1c_t+a_2D_{t-1}+a_3A_t+U_t$ - (2)

<u>Brittains Explicit Depreciation Model:</u>

$D_t = a_o+a_1P_t+a_2D_{t-1}+a_3A_t+U_t$ - (3)

<u>Darling's Model:</u>

$D_t = a_o+a_1P_t+a_2P_{t-1}+a_3A_t+a_4\Delta_{s-2}+U_t$ - (4)

Where in all equations,

D_t and D_{t-1} = Total equity dividend in period 't' and 't-1' respectively.

P_t and P_{t-1} = Net profit after tax in period 't' and 't-1' respectively.

C_t = Cash flow in period 't'

[4] R. P. Mahapatra and P. K. Sahus, *A note on determinants of corporate dividend behaviour in India – an Econometric Analysis,* Decision, Vol 20 No-1 (January 1993)

A_t = amount of depreciation in period 't'.

D_{s-2} = Change in sales in a year over the preceding two years.

U_t = error term

A comparative review of the various regression models used in their study revealed that Brittains cash flow model is the "model of good fit" not only at the macro level, but also at the industry group level in the Indian situation. None of the other models provide as a satisfactory an explanation of dividend behavior as Brittain's cash flow model. Based on this model, their study attempted to examine the impact of a few more (except those already examined by earlier authors) determinants of dividend behavior with the help of their sample data. Those determinants were investment demand (ID), flow of net debt (FND), Interest (I), Liquidity (L), Behavior of share price (SP) and changes in sales (Ds-2). They did it by including these determinants one by one in the Brittain's cash flow model, which provided the model of good fit in most of the sample classifications.

After using various regression equations, they found that dividend decision is primarily governed by cash flow, a measure of company's capacity to pay and dividend paid in the previous year, in majority of the sample companies. Among other determinants, investment demand has been found having significant impact on the dividend decision of electrical goods and chemical industries. The impact of flow of net debt on dividend decision found significant in case of new companies at the aggregate level and paper industry at the industry group level of their study. Similarly, they found that liquidity factor turns out to be a significant determinant of dividend payout in cotton and general engineering industries on their study. They found that determinants like interest payment, changes in sales and behavior of share prices in general do not have any significant bearing on the dividend decision of the sample companies.

2.7.2 Review of Major National Studies

There are few studies made in context of Nepal with regards to dividend and stock prices, because of information lack and lack of experts, the study is limited in this regards. Even though, some studies are made which are going to be reviewed here.

i. <u>Timilsina's Study</u>

Mr. Timilsena in his thesis paper entitles "Dividends and Stock Prices: An Empirical Study" he used multiple regression model of three independent variables. Besides this he also tried to highlight the relationship between stock price and other independent variables setting separate simple linear regression equations. The sectors chosen for the study were manufacturing and trading sector and banking and insurance sector. The major findings of the study were as follows:

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

ii. Bhattarai's Study[5]

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

- Highlight various aspects of dividend policies and practices in Nepal.
- Analyze the variables such as profit, dividend, retained earning, growth rate and relevant variables to show the relationship between the value and other ingredients affecting it.
- Provide feedback to the policy makers and executive working in various companies chosen for study based on the findings of the analysis.

The major findings of this study are as follows:

- The companies while paying dividend generally neglect shareholder's expectations.
- Dividends were paid only in profitable years.
- In aggregate, there was no stable dividend paid by the companies i.e. instability of dividend.
- There were no criteria to adopt a certain payout ratio. There is haphazard payout ratio in the companies under study.
- Cash balance and dividend payment were positively correlated.
- Mostly the joint venture companies were paying dividend.

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[5] Bhattarai, Bisnu Hari, *Dividend Decision and its impact on Stock Valuation,* Unpublished master's Thesis, T.U. Shanker Dev Campus, KTM, 1996., P.21

- ❖ There was positive impact of dividend on valuation of shares.
- ❖ Dividend paid was inadequate to cover the required rate of return of the investors.
- ❖ Market price considerably higher than actual network.

iii. __Navaraj Adhikari's Study__[6]

The study has covered the period of 1990 to 1996 with the total observation of 47 financial sector and 30 non-financial sectors. The main findings of the study are as follows:

- ❖ Positive relationship between the ratio of dividend per share to book value per share and turnover ratios.
- ❖ There is positive relationship between the ratio of dividend per share to book value per share and interest coverage.
- ❖ Market price of the share is affected by dividend.
- ❖ Financial executives of Nepal reject dividend as a residual decision in Nepalese companies.
- ❖ Stock with larger ratio of dividend per share to book value per share has higher liquidity.
- ❖ Stock with larger ratio of dividend per share to book value per share has higher profitability.

__Timilsina and Adhikari's Study Suffer from following limitation__

At first, the dividend is in macro level but it is necessary to do comparative study and analysis of dividend policy in micro level for the joint ventures Banks and insurance companies.

Secondly, they have not calculated the test of hypothesis, especially ANOVA test therefore, whether the financial indicator such as EPS, DPS, DPR results obtained values are significant or not.

Thirdly, they did not use, interpretation and analysis of such financial indicators as dividend per share, earning per share, market price per share, year dividend paid liquidity and net worth which are directly effected by dividend policy. Therefore, validity of the result is not strong in the case of banks and insurance companies.

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[6] Navaraj Adhikari (1999), *Corporate Divided Practices in Nepal*, An unpublished Master's thesis, CDM, T.U. P.P.- 21-23

*iv. **Pradhan's Study**[7]*

In study stock market behavior in Nepal in 1992, the data were collected from 17 enterprises covering the year between 1986-1990. Following findings were observed in connection with dividend behavior:

- Higher the earnings on the stock leads the larger the ratio of dividend per share.
- Stocks with larger ratio of dividend per share to the market price per share have higher liquidity, liquidity position of the stock, paying lower dividend is also more variable as compared to the stock paying higher dividend.
- Stock with larger ratio of dividend per share to market price per share has higher liquidity.
- Positive relationship between the ratio of dividend per share and interest coverage ratio.
- Dividend per share and market per share was positively correlated.
- Positive relationship between dividend payout and liquidity.
- Positive relationship between dividend payout and profitability.
- Positive relationship between dividend payout and turnover ratio.
- Positive relationship between dividend payout and interest coverage.

*v. **P. L. Rajbhandari's Study***

This study takes into consideration of data of five year 1994/1995 through 1998/1999. Six companies were taken as sample. Her main findings are:

- Average earning per share seems satisfactory of all sample companies.
- The positive relationship between dividend per share and earning per share.
- The co-efficient of correlation between earning per share and market price is negative.
- The relationship between market price per share and dividend is positive.
- Dividend payment is not consistent of all six sampled companies.

[7] Radheshyam Pradhan, *Stock Market Behavior in Small Capital Market: A case of Nepal*, The Nepalese Management Review, Vol IX (Summer, 1993)

vi. Manandhar's Study

The main statement of the problem of the study is to set test whether Nepalese corporate firms consider the logged earnings and divided paid to pay the dividend in current year. To test this problem he has consider 17 corporate companies as samples and set different hypothesis and drawn the following conclusions:

- There is significant relationship between the change in dividend policy in forms of DPS and change in logged earnings.
- In overall there is positive relationship between change in logged consecutive earnings and dividend per share.
- There is relationship between distributed log profits and dividend.
- When change in logged consecutive earnings is greater than zero, in 65% the case change in dividend per share.
- Overall increase in EPS (t) has resulted to increase in dividend payment in 66.6% of the cases while decrease in EPS resulted decrease in dividend payment.
- Nepalese corporate firms have followed the practice of maintaining constant dividend payment per share.
- Corporate firm do not take into account one year or two year logged earnings.

vii. K. C.'s Study[8]

The Thesis paper "Dividend Policy of Joint Venture Bank in Nepal" of Mr. Pramesh K. C. that had covered the period of 1984/85 to 1989/90 with the following objectives:

- To provide conceptual framework of dividend models.
- To analyze the financial variables affecting the stock value and interpret the dividend paying implication under dividend valuation model.
- To provide suggestions, which will give vision for determination and epousal of dividend policy of joint venture banks.
- The summary of the major findings of the study were as follows:
- The earning per share of all joint venture banks were raise satisfactorily.
- There was correlation between EPS and BPS.
- Amount of cash dividend had been raising each year.

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[8] Pramesh, K. C., *Dividend Policy of Joint Venture Banks in Nepal,* An unpublished MBA thesis (CDM. T.U. 1991) , P. 25

- ❖ The P/E ratio, earning yield, dividend yield percentage exposed cyclical behavior.
- ❖ R/E ratio was fluctuated in smaller proportion.
- ❖ The market value per share of joint venture banks stocks in security exchange centre was significantly fluctuated and trading on high price.
- ❖ Joint venture banks in Nepal were seen as growth banks because actual capitalization rate ® is higher than the normal capitalization rate k which is r>k.
- ❖ Under CAPM the Beta risk of joint venture banks was less risky.
- ❖ Cash dividend per share (CDPS) of joint venture banks was significantly increasing in each year.
- ❖ The annual average growth rate in CDPS of NABIL and NISBL and NGBL were recorded as 35%, 51.7% and 100% respectively.

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CHAPTER-III

RESEARCH METHODOLOGY

Research methodology is a process, which solves the problem by using various tools. It describes the method and process of the study. Research methodology is one of the most important parts of every research. The basic objective of this study is to explain, test and analysis of dividend practice and its impact on market price of stock in Nepalese context. Research methodology describes the methods and process applied in the entire aspect of the study. It refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objects in view. This chapter describes about research design, sample selection and size, data collection procedure, data processing, definition of variables, meaning and definition of statistical tools used.

3.1 Research Design

Research design is the plan, structure and strategy of investigation conceived. So as to obtain answers to research questions and to control variance. In other words it is a conceptual structure within which a research is conducted. It helps in the analysis of data related to study. The research design basically follows the comparative evaluation of dividend practices in the sample insurance companies and their effect on stock prices. 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.

Analytical and descriptive approaches are used to evaluate the dividend practices of the sample firms. 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. The points are discussed primarily on the basis of secondary data, financial statements of six years from F/Y 2000/01 to 2005/06 taken from insurance companies, Security Board, Nepal Stock Exchange and websites.

3.2 Population and Samples

There are several insurance companies that are listed in stock exchange in the period of the study. It is not possible to study all of them. So, four insurance companies are taken for study by using random method of sampling. The sampled companies are as follows:

a. Nepal Insurance Company Limited (NICL)

b. Himalayan General Insurance Company Limited (HGICL)

c. Premier Insurance Company (Nepal) Limited (PICL)

d. Sagarmatha Insurance Company Limited (SICL)

3.3 Source and Technique of Data Collection

All the analysis will be based on secondary data. In this study data are collected from different sources i.e. Nepal Stock Exchange, Security Board, website such as www.nepalstock.com, newspaper and magazines, annual report of the company. For the purpose of analysis of data of six years will be taken as sample from 2001/01 to 2005/06.These will be analyzed in two ways:

a) Using financial tools

b) Using statistical tools

3.5 Data Analysis Tools

The analysis of this study is based on the following tools:

a. Financial tools
b. Statistical tools

a. <u>Financial Tools</u>

Financial tools are those, which help to study the financial strength and weakness of the sample forms. The financial tools used in this study are presented below:

i. Earning Per Share (EPS)

Earning per share is calculated to know the earning capacity of the firm. It is one of the factors that affect the dividend policy and stock price of a firm. The higher earning indicates the better achievements in terms of profitability of the firms by mobilizing their funds and dividend may be larger and vice versa. So, EPS is assumed as an independent variable to determine the dividend and market prices of stock. EPS is calculated by dividing the earning available to common shareholders by the total number of common stock outstanding. In equation,

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

ii. Dividend Per Share (DPS)

Dividend per share indicates the rupee earnings distributed to common stockholders per share basis. 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. It also affects the market price of stock, but it does not affect the earning per share. So, it is assumed as independent variables to the EPS. If the EPS is greater, the dividend per share will be greater. It is calculated by dividing the total dividend to equity shareholders by the total no of equity shares. In equation,

$$DPS = \frac{\text{Total Dividend}}{\text{No. of common stock outstanding}}$$

iii. Dividend Percent (DP)

Dividend percent is the percentage value of dividend per share. It indicates that the ratio of DPS to the paid up price per share. It is measured in percentage. In equation,

$$DP = \frac{\text{Dividend Per Share}}{\text{Paid up price per share}} x100$$

iv. Market Price Per Share (MPS)

Market price per share is that value of stock which can be obtained by a firm from the market. MPS is one of the variables, which are affected by DPS of the firm. If the earning per share and dividend per share are high, the market value of the share will also be high. The capital market determines MPS. In this study the market price of share means the closing price of the share indicated in the NEPSE index. If the firm is growing its earning power will be greater than its cost of capital, market value of share will be higher than the book value and vice versa.

v. Dividend Payout Ratio (DPR)

D/P ratio is the proportion of earning paid in the form of dividend. It is calculated to indicate percentage of the profit on share that is distributed as dividend and what percentage is retained as reserve and surplus for the growth of the firm. Higher earning enhances the ability to pay more dividends and vice versa. It is calculated by dividing the dividend per share by the earning per share. In equation,

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

vi. Price Earning Ratio (PER)

The P/E ratio represents the amount which investors are willing to pay for each rupee of the firm's earnings. It is also called the earning multiplier. It measures investor's expectation and market appraisal of the performance of the firm. The higher P/E ratio implies the higher market price of a stock. It is calculated by dividing earning per share to market price of share. In equation,

$$\text{P/E Ratio} = \frac{\text{Market price per share}}{\text{Earning per share}}$$

vii. Earning Yield (EY)

Earning Yield is the percentage of earning per share to market price per share in the stock market. It measures the earning in relation to market value of share. The share with higher earning yield is worth buying. It is calculated by dividing market price per share to earning per share. It is presented in the following equation.

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

viii. 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. The share with higher dividend yield is worth buying. 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. It is calculated by dividing market price per share to dividend per share. As using following equation.

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

b. Statistical Tools

The statistical tools used in this study are presented below:

i. Arithmetical Mean (AM)

AM is an average value, which represents a group of values. AM of a given set of observation is their sum divided by the number of observations. if, X_1, X_2........ X_n are the given n observations, than their arithmetic mean, usually denoted by, $\overline{X}$ is given by,

$$\overline{X} = \frac{X_1 + X_2 + ... + X_n}{n}$$

$$or, \overline{X} = \frac{\sum X}{n}$$

Where,

$\overline{X}$ = *Arithmetic Mean*

X_1, X_2 *and* X_n = *Set of observations*

n = Number of observations

ii. Standard Deviation (±)

The measurement of the scatter ness of the mass of figures in a series about an average is known as dispersion. Karl Pearson, first introduced the concept of standard deviation in 1983. Standard deviation is the positive square root of the arithmetic average of the squares of all the deviations measured from the arithmetic average of the series. The greater the value of the s.d, the greater will be the dispersion and vice versa. A small standard deviation means high degree of uniformity of the observation as well as homogeneity of series. A large standard deviation means the just opposite. Standard deviation is denoted by a Greek letter Sigma and it is calculated as follows:

$$\textit{Standard Deviation } (\sigma) = \sqrt{\frac{\sum\left(X - \overline{X}\right)^2}{N}}$$

Where,

N = Number of items in the series.

$\overline{X}$ = *Mean*

X = *variables*

iii. Coefficient of Variation (CV)

The co-efficient of variation is the relative measure of dispersion, which is defined as the ratios of the standard deviation to the mean expressed in percent. *(Levin and Rubin; 1994: 75)* 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 homogeneous. On the contrary, the series with less coefficient of variation is said to be less variable, more consistent, more uniform, more stable and more homogeneous. It is denoted by CV and is obtained by dividing the standard deviation by arithmetic mean. Thus,

$$CV = \frac{S.D.}{Mean} \times 100\ \%$$

$$Or, \quad CV = \frac{\pm}{\overline{\overline{X}}} \times 100\ \%$$

Where,

$\overline{X}$ = *Arithmetic Mean*

$\pm$ = *Standard Deviation*

iv. Coefficient of Correlation (r)

Correlation analysis is the statistical tools that can be used to describe the degree to which one variable is linearly related to another. *(Levin and Rubin; 1994: 613)* 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. It the square roots of the coefficient of determination. Correlation may be either positive or it negative. If both variables move in the same direction, the correlation is said to be positive but if the two variables move in opposite direction, the correlation is termed as negative. 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 power ratio etc. is measured by the coefficient of correlation. The coefficient of correlation can be calculated as:

$$r = \frac{\text{cov}(x,y)}{\sigma_x \cdot \sigma_y}$$

Or, $r = \frac{\sum(x-\bar{X})(y-\bar{Y})}{(N-1)\sigma_x.\sigma_y}$

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,

$\pm_x. \pm_y$ *are the SD of the distribution of x and y values respectively*

Cov(x,y)= Cov of x and y value= $\frac{\sum(x-\bar{X})(y-\bar{Y})}{(N-1)}$

Under this study, the correlation between the following variables is 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) Earning per share and dividend per share

(i) Earning per share and dividend payout ratio

(j) Dividend per share and dividend payout ratio

(k) Earning yield and dividend yield.

v. Coefficient of Determination (r^2)

The coefficient of determination is the measure of the degree of linear association or correlation between two variables, one of which happens to be independent and other being dependent variables. In other words coefficient of determination measures the percentage of total variation in dependent variable as explained by independent variables. The coefficient of determination is denoted by r^2 and the value lies between zero and unity. The closer to unity, the greater will be 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 scattered diagram fall exactly on the regression line. The r^2 is always a positive number. It cannot 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,

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

$$Or,\ r^2 \quad = \frac{1 - Un\exp lained\ Variance}{Total\ Variance}$$

vi. Regression Analysis

Regression Analysis is concerned with the study of the relationship between one variable called the explained or dependant variable and one or more other variables called independent or explanatory variables. *(Levin and Rubin; 1994: 114)* Francis Galton was the first person to introduce the concept of regression. Regression is a statistical method for determining relationship between the variables by the establishment of an approximate functional relationship between them. There are two types of regression analysis. One is called simple linear regression analysis, which is concerned with the study of the relationship between one variable called the dependent variable and one other variable called independent variable. Other is called multiple-linear regression analysis, which is concerned with the study of the relationship between one variable called the dependent variable and more than one other variable called independent variable. Simple linear regression analysis is used to find the relationship between two variables. In this study the following simple regressions have been analyzed:

(a) Market price per share on earning per share

y = a + bx

Where.

y = market price per share

a = Regression constant

b = Regression coefficient

x = Earning per share

This model has been constructed to examine the relationship between market price per share (dependent variable) and earning per share (independent variable)

(b) Market price per share on dividend per share:

y = a + bx

Where,

y = Market price per share

a = Regression constant

b = Regression coefficient

x = Dividend per share

This model has been constructed to examine the relationship between market price per share (dependent variable) and dividend per share (independent variable)

(c) 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

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

(a) Market price per share on dividend per share, earning per share and dividend payout ratio.

$$y=a+b_1X_1+b_2X_2+b_3X_3$$

Where,

y = Market price per share

a = regression constant

b_1, b_2 and b_3 = Regression coefficient of 1st,2nd and 3rd variables respectively.

X_1 = dividend per share

X_2 = earning per share

X_3 = dividend payout ratio

It helps to predict the market price per share on the basis of dividend per share, earning per share and dividend payout ratio.

The regression analysis submits the following two concepts:

(a) Regression Constant (a):

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

(b) Regression Coefficient (b):

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

vii. Standard Error of Estimate (SEE)

With the help of regression equations perfect prediction is practically impossible. Standard error of estimate is a measure of reliability of the estimating equation, indicating the variability of the observed points around the regression line, that is the extent to which observed values differ from their predicted value on the regression line. Smaller the value of SEE, the closer will be the dots to the regression line and the better the estimates based on the equation for this line. If SEE is zero, then there is no variation about the line and the correlation will be perfect. Thus, with the help of SEE, it is possible for us to sure how well and representative the regression line is as a description of the average relationship between two series.

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CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

Data presentation, analysis and interpretation are an important aspect of evaluation of divided practices and its effects . The effort of this chapter has been made to analyze and interpreted the divided policy of four insurance companies in Nepal. Furthermore, this chapter has been tried to provide factual and practical information of four insurance companies and on the basis of this chapter conclusion and recommendation can be drawn with easily.

This chapter includes three headings, at first analysis of financial indicators and variables are presented. Correlation and regression are the next two sub-headings. Therefore, this chapter is based on the presentation and analysis of the secondary data.

The comparative analysis of dividend practices of four insurance companies by using above mentioned tools can be presented, analyzed and interpreted as follows;

4.1 Analysis of Financial Indicator Variables

i) Earning Per Share (EPS)

Earning per share is one of the most important financial indicators, which measure the earning capacity of a firm. It measures the profit available to the ordinary shareholders on a per share basis. EPS is calculated by dividing net income available to the common shareholders by the total number of common shares outstanding, the following table shows the EPS of the sample firms.

<u>Table No. 4.1</u>

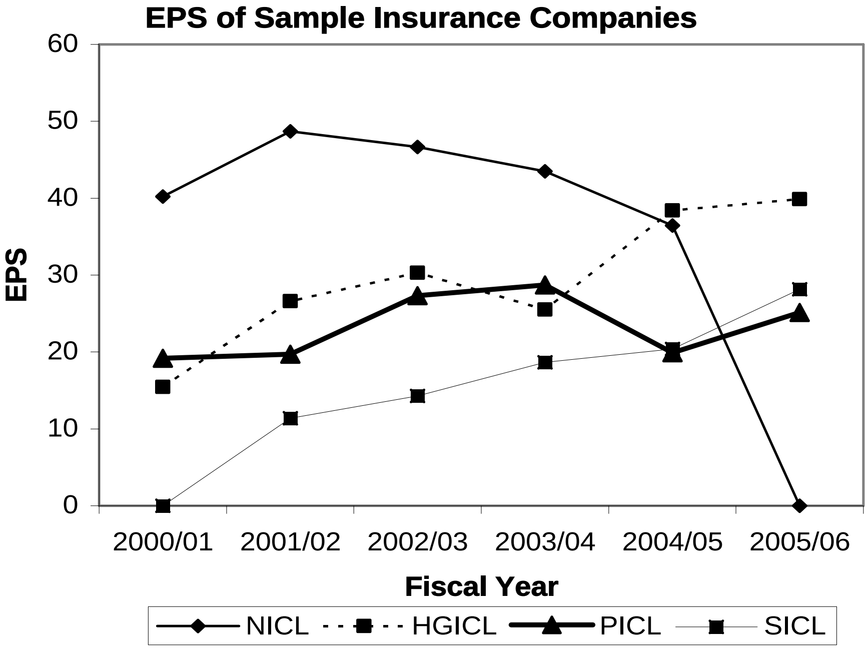
Earning Per Share of Sample Insurance Companies

IC	00/01	01/02	02/03	03/04	04/05	05/06	MEAN	SD	C.V.
NICL	40.20	48.70	46.64	43.48	36.43	NA	35.90	18.14	50.51
HGICL	15.47	26.60	30.30	25.50	38.41	39.86	29.35	9.04	30.79
PICL	19.20	19.70	27.33	28.73	19.89	25.12	23.32	4.25	18.21
SICL	NA	11.40	14.27	18.67	20.40	28.15	15.48	9.51	50.51

Sources : *SEBO/N*

NA = Data not available

Figure No. 4.1



The above mentioned table and figure shows that EPS of NICL, HGICL and PICL is in fluctuating trend, whereas EPS of SICL is in increasing trend, maximum EPS of sample firms are Rs. 48.70 in 2001/02, Rs.39.86 in 2005/06, Rs.65.20 in 2003/04, Rs 28.73 in 2003/04, Rs 16.17 in 2004/05 and Rs 28.15 in 2005/06 respectively. Similarly minimum EPS of sample firms are 36.43 in 2004/05, Rs 19.20 in 2000/01, and Rs 11.40 in 2001/02 respectively.

The average EPS for sample firms are Rs. 35.90, Rs 29.35, Rs.23.32, and Rs.15.48 respectively. It shows that the highest average EPS is in NICL and lowest in SICL. It is indicated that the NICL's profitability of common shareholders investment better than others and vice versa. The standard deviation of EPS of sample firms are 18.14, 9.04, 4.25 and 9.51 respectively. Likewise the coefficient of variation (C.V.) of EPS of sample firms are 50.51%, 30.79%, 18.21%, and 50.51% respectively. Among the sample firms CV is highest in NICL and SICL (i.e.50.51%), lowest in PICL (i.e.18.21). It has indicated that the variability of EPS of NICL and SICL is greater. It means common stocks of NICL & SICL are riskier as compared to other sample firms. There is least variability in the EPS of PICL. Thus it is least risky among all.

ii. Dividend Per Share (DPS)

Dividend per Share (DPS) is that amount, which is paid to common shareholders on a per share basis. DPS shows that what exactly do the ordinary shareholders receive. It is calculated by dividing the total dividend to equity shareholders by the total numbers of the equity shares. The following table shows the dividend per share of the sample firms.

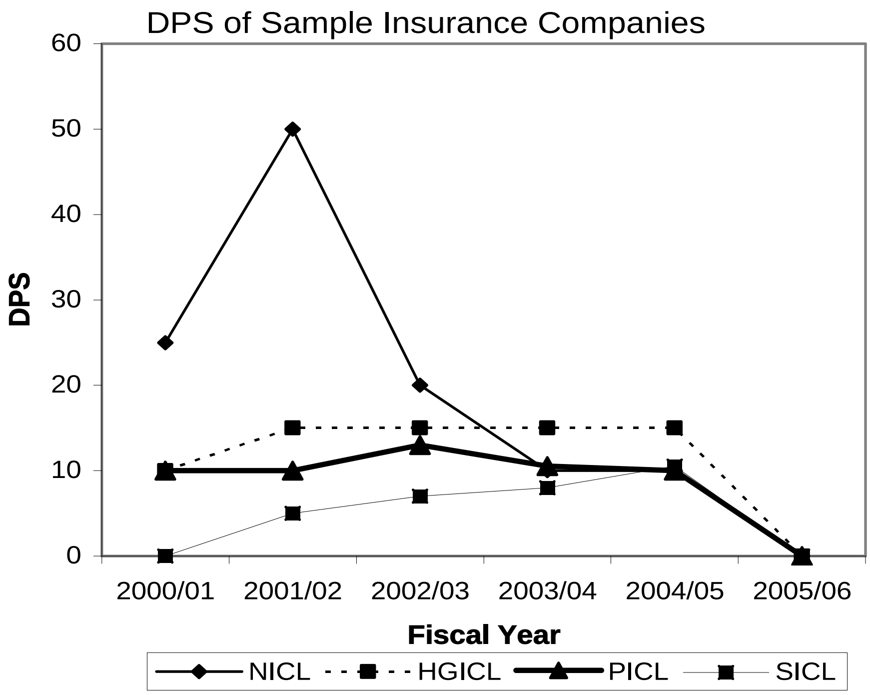
Table No. 4.2

Dividend Per Share (DPS) of Sample Insurance Companies

IC	**00/01**	**01/02**	**02/03**	**03/04**	**04/05**	**05/06**	**MEAN**	**SD**	**C.V.**
NICL	24.99	50	20.01	10	10	NA	19.16	17.44	90.99
HGICL	10	15	15	15	15	NA	11.66	6.06	51.94
PICL	10	10	13	10.53	10	NA	8.92	4.52	50.66
SICL	-	5	7	8	10.53	NA	5.08	4.33	85.09

Sources: *SEBO/N*

Figure No. 4.2



The above mentioned table and figure shows that dividend per share of NICL & PICL is in fluctuating trend, DPS of HGICL and SICL is in increasing trend. The highest DPS of sample firms are Rs. 50 in 2001/02, Rs 15 in last four years, Rs 10 in 1st two years, Rs 20 in last three years, Rs. 10.53 in 2003/04, Rs.10.01 in first two years, Rs 7 in last one year and Rs 10.53 in 2002/03. Similarly, all the sample firms has not paid dividend in 2005/06.

The average DPS of sample firms are Rs. 19.16, Rs 11.66, Rs. 8.92, and Rs 5.08 respectively. It shows that the average DPS of NICL is greater and SICL is lower among sample firms.

Higher dividend per share creates positive attitude of the shareholders towards the company, which consequently helps to increase the market value of the shares. The standard deviation of DPS of sample firms is 17.44, 6.06, and 4.33 respectively. The CV of sample firms is 90.99%, 51.94%, 50.66%, and 85.09% respectively. It shows that the CV of NICL is greater and PICL is lower. It indicates that among the sample firms during the period, PICL has the highest consistency in paying dividend whereas the DPS of NICL is highly fluctuating.

iii. Dividend Percent (DP)

Dividend percent indicates that the ratio of DPS to the paid up price per share. It is measured in percentage. The following table shows the dividend percent of the sample firms.

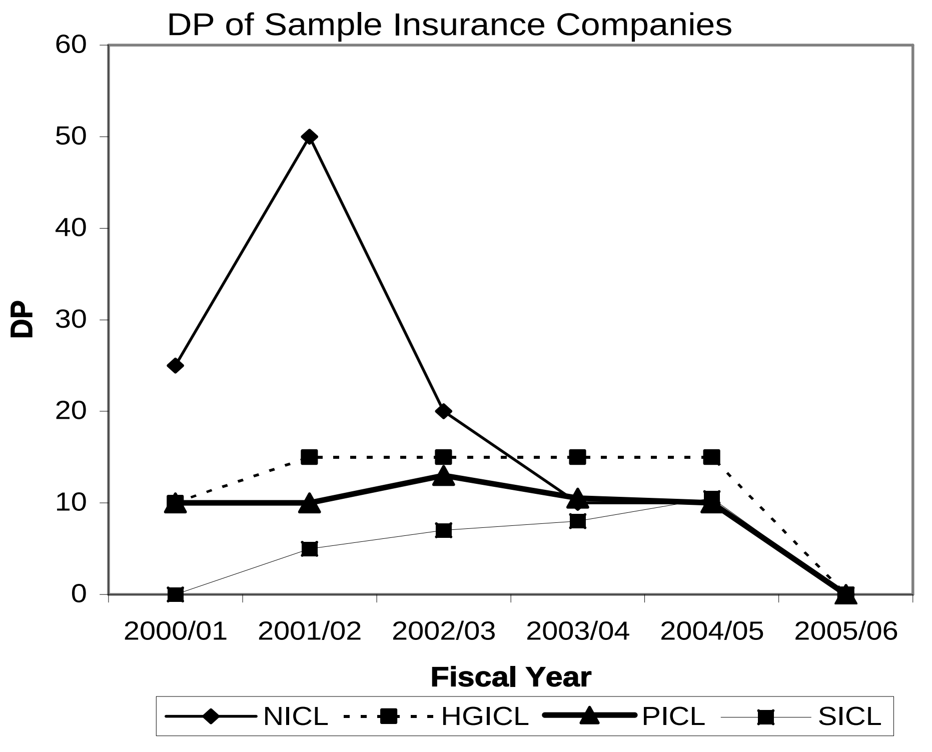
Table No. 4.3

Dividend Percent (D.P.) of Sample Insurance Companies

IC	00/01	01/02	02/03	03/04	04/05	05/06	MEAN	SD	C.V.
NICL	24.99	50	20.01	10	10	NA	19.16	17.44	90.99
HGICL	10	15	15	15	15	NA	11.66	6.06	51.94
PICL	10	10	13	10.53	10	NA	8.92	4.52	50.66
SICL	NA	5	7	8	10.53	NA	5.08	4.33	85.09

Sources: *SEBO/N*

Figure No. 4.3



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

iv. Dividend /Payout Ratio (DPR)

Dividend payout ratio indicates that what percentage of actual earnings of a firm has been received by the ordinary shareholders. It is calculated by dividing the dividend per share to ordinary shareholders by the earning per share. The following table shows that dividend payout ratio of sample firms.

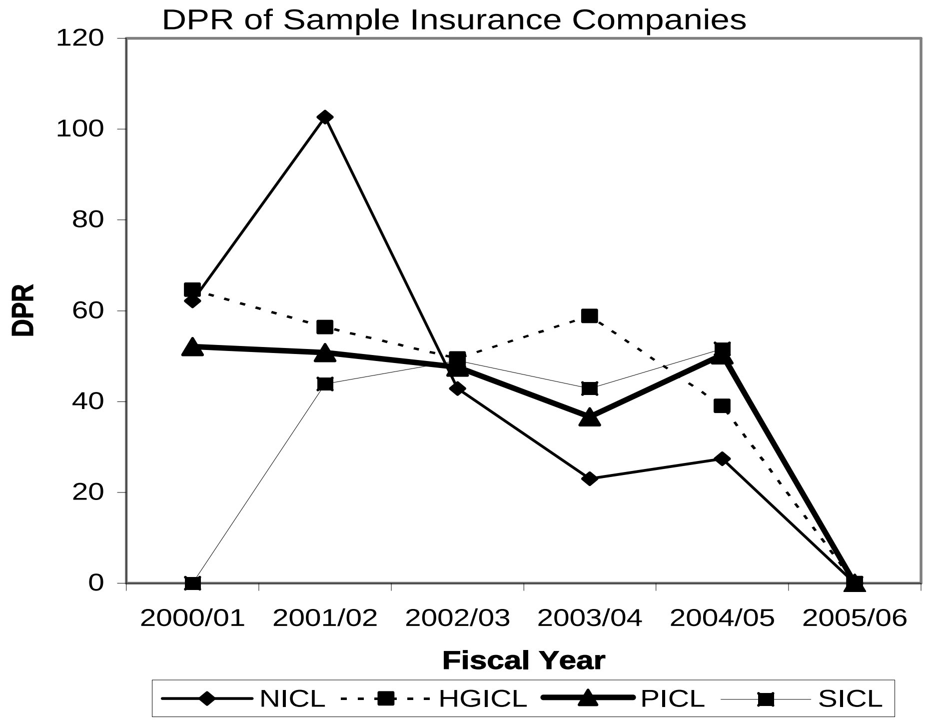
Table No. 4.4

Dividend Payout Ratio (DPR) of Sample Firms

IC	00/01	01/02	02/03	03/04	04/05	05/06	MEAN	SD	C.V.
NICL	62.16	102.67	42.90	23	27.43	NA	43.02	35.83	83.27
HGICL	64.64	56.39	49.50	58.82	39.05	NA	44.73	23.61	52.77
PICL	52.08	50.76	47.57	36.65	50.28	NA	39.55	20.17	50.99
SICL	NA	43.86	49.05	42.85	51.62	NA	31.23	24.41	83.27

Sources: *SEBO/N*

Figure No. 4.4



The above mentioned table and figure shows that the average dividend payout ratio of sample firms is 43.02, 44.73, 39.55, and 31.23 respectively. It indicates the average DP ratio of HGICL is highest and SICL is lowest among all. Highest percentage of dividend payout ratio of the sample firms are 102.67 in 2001/02, 64.64 in 1998/00, 51.62, 47.57 in 2000/01, 52.08 in 2000/01 and 51.62 in 2004/05.

The SD of DPR of sample firms is 35.83, 23.61, 20.17, and 24.41 respectively. The CV of DPR of sample firms are 83.27, 52.77, 50.99 and 83.27 respectively. The highest CVs of DPR are of NICL & SICL and the lowest is of PICL. Thus, the analysis of DPR trend shows that the PICL's D/P ratio to common shareholders is much better than NICL, SICL and also other sample firms.

v. Market Price Per Share

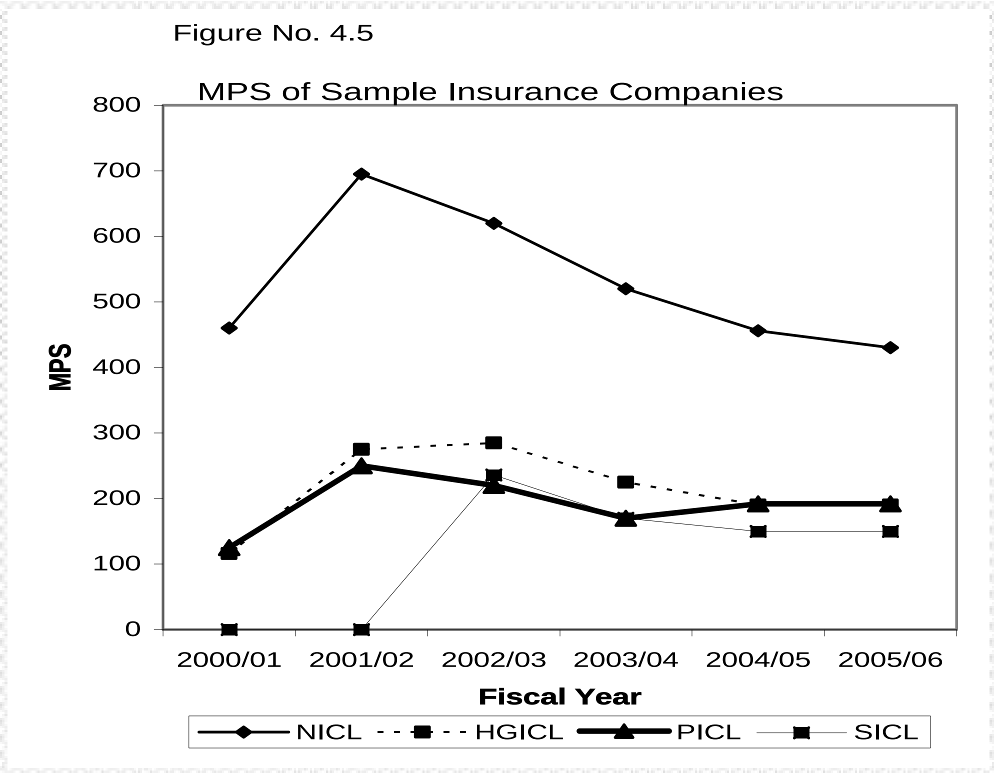
Market price of share is that the value of stock, which can be received by firms as equity holders selling it in capital market. The capital market determines M.P.S. In this analysis, MPS represents the closing market price of NEPSE Index of the sample firms. The following table shows the market price of stock of the sample firms.

Table No. 4.5

Market Price Per share (MPS) of Sample Firms

IC	00/01	01/02	02/03	03/04	04/05	05/06	MEAN	SD	C.V.
NICL	460	695	620	520	456	430	530.17	105.64	19.92
HGICL	116	275	285	225	190	190	213.5	62.67	29.35
PICL	125	250	220	170	192	192	191.5	42.71	22.30
SICL	NA	NA	236	170	150	150	117.66	96.46	19.92

Sources : *SEBO/N*



The above-mentioned table shows that the average yearly market price of stock of sample firms are Rs.530.17, Rs 213.5, Rs 191.5, and Rs 117.66 respectively. The average highest market price of sample firms are Rs 695 in 2001/02, Rs 285 in 2002/03 respectively. Likewise the lowest MPS of sample firms are Rs.430 in 2005/06, Rs 116 in 2000/01, 125 in 2000/01, and Rs 150 in last two years respectively. The MPS of SICL in 2000/01 and 2001/02 is not available. This table also shows that MPS of NICL, HGICL, and PICL are in fluctuating trend and MPS of SICL is in decreasing trend. The standard deviation of MPS of sample firms is 105.64, 62.67, 42.71 and 96.46 respectively.

The co-efficient of variation (CV) of MPS of sample firms are 19.92%, 29.35%, 22.30%, and 19.92% respectively. It shows that the highest CV of MPS is 29.35% of HGICL and lowest CV of MPS is 19.92 of NICL & SICL among all. The higher CV indicates the greater variability of MPS. Thus, the analysis of MPS trend shows that the HGICL'S capital increasing rate is higher than other sample firms.

vi. Price Earning Ratio (PER)

Price earning ratio is the ratio between market price per share and earning per share. It is calculated by dividing market price per share by the earning per share. It is also called earning multiplier. The following table shows the P/E ratio of the sample firms.

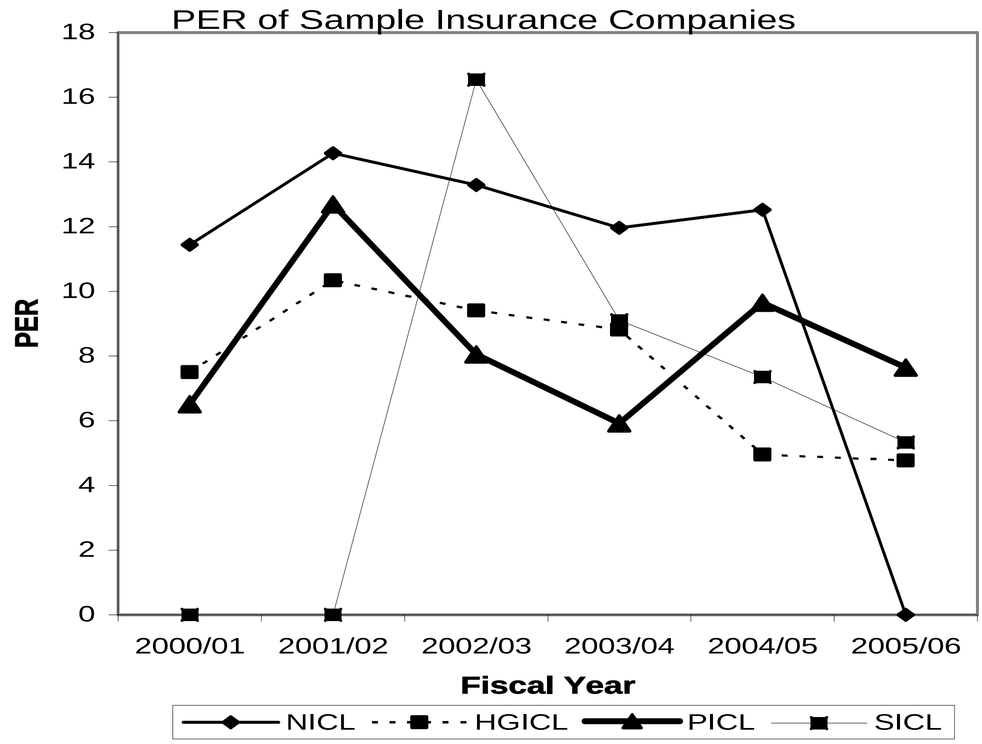
Table No. 4.6

Price Earning Ratio (PER) of Sample Firms

Sources: *SEBO/N*

IC	00/01	01/02	02/03	03/04	04/05	05/06	MEAN	SD	C.V.
NICL	11.44	14.27	13.29	11.96	12.52	NA	10.58	5.28	49.90
HGICL	7.50	10.34	9.41	8.82	4.95	4.77	7.63	2.34	30.66
PICL	6.51	12.69	8.05	5.92	9.65	7.64	8.41	2.47	29.36
SICL	NA	NA	16.54	9.11	7.35	5.33	6.38	6.23	49.90

Figure No. 4.6



The above-mentioned table shows that the average PER of sample firms is 10.58, 7.63, 8.41, and 6.38 respectively. It also shows that the average highest PER is of NICL and average lowest PER is of SICL.

The highest PER of the sample firms are 14.27 in 2001/02, 10.34 in 2001/02, 12.69 in 2001/02, 16.54 in 2002/03 respectively. Likewise, the lowest PER of the sample firms are 11.44 in 2000/01, 4.77 in 2005/06, 5.92 in 2003/04 and 5.33 in 2005/06 respectively.

The standard deviation of PER of sample firms are 5.28, 2.34, 2.47, and 6.23 respectively. The CV of sample firms are 49.9%, 30.66%, 29.36%, and 49.9% respectively. It shows that the highest CV of PER is 49.90% of NICL & SICL and lowest CV of PER is 30.66 of HGICL, which indicates that HGICL has the highest consistency in P/E ratio whereas the P/E ratio of NICL & SICL are highly fluctuating.

vii. Earning Yield (EY)

Earning Yield is the percentage of earning per share to market price per share in the secondary market. It is calculated by dividing earning per share by market price per share. It gives an idea of how much an investor might get for his money. The share with higher earnings yield is worth buying. The following table shows that earning yield of sample firms.

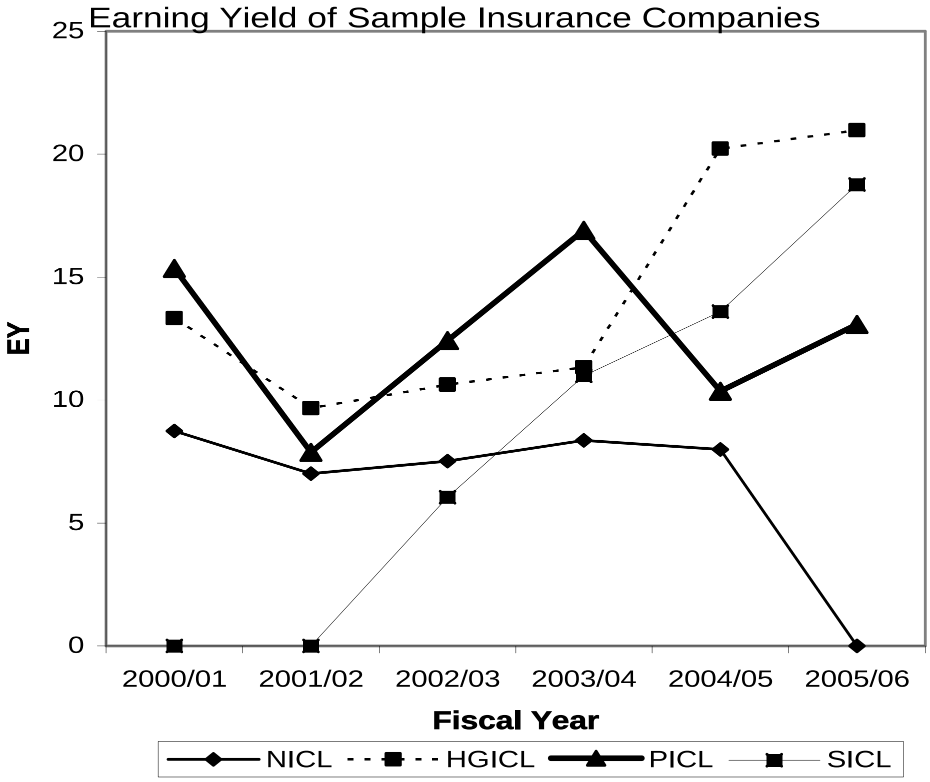
Table No. 4.7

Earning Yield (EY) of Sample Firms

IC	**00/01**	**01/02**	**02/03**	**03/04**	**04/05**	**05/06**	**MEAN**	**SD**	**C.V.**
NICL	8.74	7.01	7.52	8.36	7.99	NA	6.60	3.29	49.82
HGICL	13.33	9.67	10.63	11.33	20.22	20.98	14.36	4.99	34.74
PICL	15.36	7.88	12.42	16.90	10.36	13.08	12.66	3.27	25.81
SICL	NA	NA	6.05	10.98	13.60	18.77	8.23	7.59	49.82

Sources: *SEBO/N*

Figure No. 4.7



The above mentioned table shows that the average earning yield of sample firms are 6.6, 14.36, 12.66 and 8.23 respectively. The average highest EY is 14.36 of HGICL and average lowest EY is 6.6 of NICL. It indicates that the share of HGICL is worth buying.

The highest EY of sample firms are 8.74 in 2000/01, 20.98 in 2005/06, 16.9 in 2003/04 and 18.77 in 2005/06 respectively. Likewise, the lowest EY of sample firms are 7.01 in 2001/02, 9.67 in 2001/02, 7.88 in 2001/02 and 6.05 in 2002/03 respectively.

The standard deviation of EY of sample firms is 3.29, 4.99, 3.27, and 7.59 respectively. The CV of sample firms are 49.82%, 34.74%, 25.81% and 49.82% respectively. It shows that the highest CV of EY is 49.82% of NICL& SICL and the lowest CV of EY is 25.81% of PICL, which indicates that PICL has the highest consistency in EY whereas the EY of NICL & SICL is highly fluctuating.

viii. Dividend Yield (DY)

Dividend Yield is the percentage of dividend per share on market price per share. It is calculated by dividing dividend per share by market price per share. It is the dividend ratio by the investors as a percentage of market prices per share because a small change in dividend per share can bring effective change in market value of the share. The share with higher dividend yield is worth buying. The following table shows that earning yield of the sample firms.

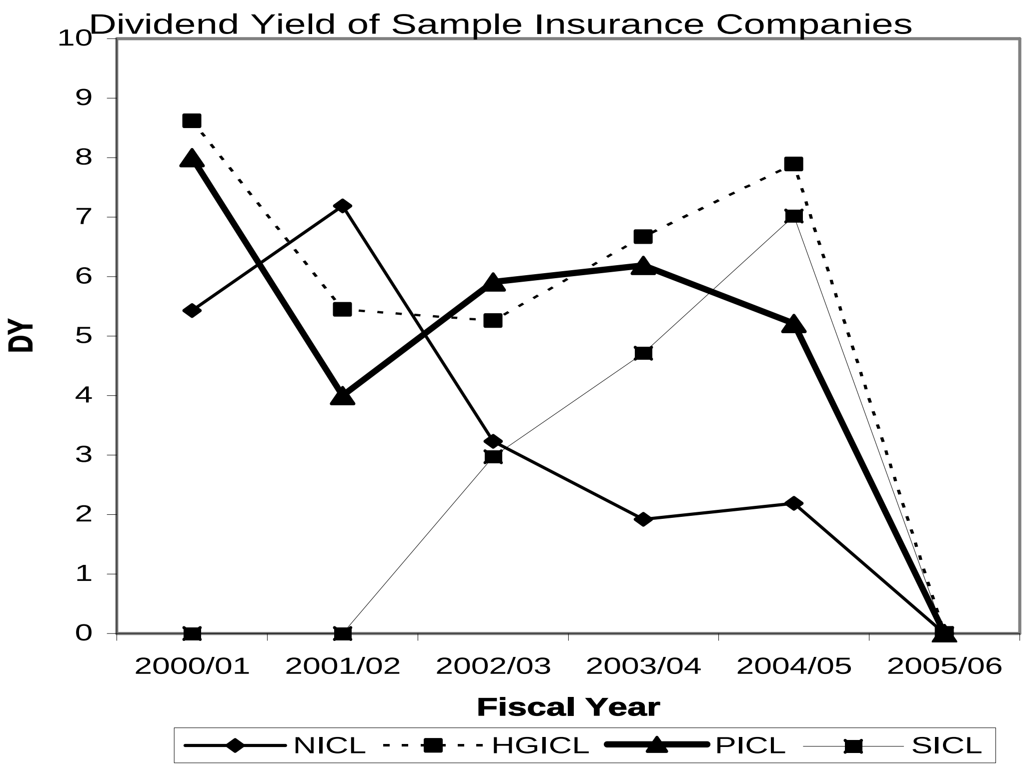
Table No. 4.8

Dividend Yield of Sample Firms

IC	00/01	01/02	02/03	03/04	04/05	05/06	MEAN	SD	C.V.
NICL	5.43	7.19	3.23	1.92	2.19	NA	3.32	2.6	0.78
HGICL	8.62	5.45	5.26	6.67	7.89	NA	5.64	3.07	0.54
PICL	8	4	5.91	6.19	5.21	NA	4.8	2.73	0.55
SICL	NA	NA	2.97	4.71	7.02	NA	2.45	2.97	0.78

Sources: *SEBO/N*

Figure No. 4.8



The above mentioned comparative table and figure shows that the average dividend yield of sample firms are 3.32, 5.64, 4.8 and 2.45 respectively. The average highest DY is 5.64 of HGICL and average lowest DY is 2.45 of SICL. It indicates that the share of HGICL is worth buying.

The highest DY of sample firms are 7.19 in 2001/02, 8.62 in 2000/01, 8 in 2000/01 and 7.02 in 2004/05 respectively. Likewise the lowest DY are 1.92 in 2003/04, 5.26 in 2002/03, 4 in 2001/02 and 2.97 in 2002/03 respectively.

The standard deviations of DY of sample firms are 2.6, 3.07, 2.73 and 2.97 respectively. The CV of DY of sample firms are 78%, 54%, 55% and 78% respectively. It shows that the highest CV of DY is 78% of NICL &SICL and lowest DY is 54% of HGICL, which indicates that HGICL has the highest consistency in DY whereas the DY of NICL & SICL is highly fluctuating.

4.2 Correlation Analysis

Correlation analysis is the statistical tools that can be used to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the direction of relationship between two sets of figures. It is the square root of the coefficient of determination- correlation can either be positive or it can be negative. If both variables are changing in the same direction, the correlation is said to be positive but when the variations in the two variables take place in opposite direction, the correlation is termed as negative. In this study, coefficient of correlation is calculated between stock prices and dividends, stock prices and retained earnings, stock prices and lagged earning.

The correlations of sample firms among the variables are stated below

- ***Correlation analysis of NICL***

Table No. 4.9

Correlation analysis of NICL

	EPS	**DPS**	**DP**	**DPR**	**PER**	**EY**	**DY**
MPS	0.66	0.81	0.81	0.75	0.61	0.31	0.67
EPS	-	0.66	-	0.69	-	-	-
DPS	-	-	-	0.99	-	-	-
EY	-	-	-	-	-	-	0.56

Source: From Appendix -A

The above table shows that the MPS of NICL 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 NICL is positively correlated with its P/E ratio EPS, EY and DY. Similarly the EPS has positive relationship with its DPS and DPR. It means that the DPS and DPR are decreased with the decrease in the EPS. The DPS of NICL is positively correlated with DPR. In the same way, the EY is positively correlated with the DY.

- ***Correlation of HGICL***

Table No. 4.10

Correlation of HGICL

	EPS	**DPS**	**DP**	**DPR**	**PER**	**EY**	**DY**
MPS	0.26	0.44	0.44	0.06	0.62	-0.5	-0.25
EPS	-	-0.32	-	-0.83	-	-	-
DPS	-	-	-	0.80	-	-	-
EY	-	-	-	-	-	-	-0.37

Source: From Appendix -A

The above table shows that the MPS of HGICL has positive correlation with its DPS, DP 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. But MPS of HGICL is negatively correlated with its DY. It has positive correlation with its EPS due to regular increase in earnings of HGICL. But it has negative correlation with its EY. The correlation between MPS and P/E ratio is positive. The EPS is negatively correlated with its DPS and DPR. It shows that the increase in EPS cause the decrease in DPS and DPR of HGICL and vice versa. If other variables remain constant, the DPS of HGICL is positively correlated with DPR. The correlation between EY and DY is negative due to the same type of relation of EY and DY with the MPS.

- ***Correlation of PICL***

Table No. 4.11

Correlation of PICL

	EPS	**DPS**	**DP**	**DPR**	**PER**	**EY**	**DY**
MPS	0.07	0.07	0.07	0.02	0.8	-0.8	-0.45
EPS	-	-0.03	-	-0.43	-	-	-
DPS	-	-	-	0.92	-	-	-
EY	-	-	-	-	-	-	0.34

Source: From Appendix -A

From the above table it is found that the MPS of PICL has positive correlation with its DPS, DP and DPR. It is because of regularity in paying dividend. In the same way, MPS of PICL is positively correlated with its EPS and its P/E ratio. In other hands the MPS has negative correlation with DY and EY. Similarly, the EPS is negatively correlated with both DPS and DPR. It is because of the reason that the DPS and DPR decreasing ever if the EPS has increased. Also the DPS of PICL has positive correlation with the DPR. The correlation between EY and DY is also positive correlation due to the same type of relation of EY and DY with the MPS.

- ***Correlation of SICL***

Table No. 4.12

Correlation of SICL

	EPS	**DPS**	**DP**	**DPR**	**PER**	**EY**	**DY**
MPS	0.63	0.48	0.48	-0.60	0.95	0.64	0.58
EPS	-	0.24	-	-.021	-	-	-
DPS	-	-	-	-0.01	-	-	-
EY	-	-	-	-	-	-	0.39

Source: From Appendix -A

From the above table it is found that the MPS of SICL has positive correlation with its DPS, DP and DY. But the correlation between MPS and DPR is negative. Likewise MPS has positive correlation with EPS, P/E ration and EY. Similarly the EPS has positive correlation with DPS but It 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 negatively correlated with the DPR. The correlation between the EY and DY is also positive due to the same type of relation of EY and DY with the MPS.

From the above analysis the MPS of IC (NICL, HGICL, PICL and SICL) who are paying dividend regularly have positive correlation with their dividend component i.e. DPS, DP and DPR. (The MPS has negative correlation with its DPR of SICL) it means that the MPS of these insurance companies will increase with the increase in dividend and vice versa. On the other hand thee MPS and EPS of other sample firms are positively correlated which means that with increase in MPS, the EPS will also increased and vice versa.

From the above analysis we can conclude that there is a positive correlation between MPS and P/E ratio of sample firms. It indicates that increase in P/E ration will increase the MPS and vice versa. Also, there is negative correlation between MPS and EY and MPS and DY for all sample firms except NICL and SICL.

Analyzing the relation between EPS and DPS and EPS and DPR we can see mixed type of result. NICL, has positive correlation of EPS with both DPS and DPR i.e. with the increase, both the DPS and DPR will increase and vice versa. While HGICL and PICL have negative correlation of EPS with both DPS and DPR i.e. both DPS and DPR will decrease with increase in EPS and vice versa. In case of SICL, the EPS is positively correlated with DPS but negatively correlated with DPR. It is due to the reason that the DPR has not increased with the increase in EPS.

Regarding the correlation of DPS and DPR, all sample firms except SICL have positive correlation between DPS and DPR. In case of SICL, there is negative correlation between DPS and DPR.

Further, normally there exists positive correlation between EY and DY except HGICL i.e. with increase in EY, the DY also increase and vice versa. But in case of HGICL, there exists negative correlation between EY and DY caused DY will decrease if EY will increase and vice versa.

4.3 Regression Analysis

Regression Analysis is concerned with the study of the relationship between one variable called the explained or dependent variable and one or more other variables called independent or explanatory variables. There are two types of regression analysis. One is called simple linier regression analysis, which is concerned with the study of the relationship between one variable called the dependent or explained variable and one other variable called independent or explanatory variable. Other is called multiple linier regression analysis, which is concerned with the study of the relationship between one variable called the dependent or explain variable and more than one other variables called independent or explanatory variable.

4.3.1 Simple Regression Analysis

This part is concerned with the analysis of relationship between market price of stock (MPS) and earning per share (EPS), market price of stock (MPS) and dividend per share (DPS) and earning per share (EPS) and dividend per share (DPS) of the sample firms. The following tables show the simple regression results of sample firms between MPS, EPS and DPS.

i. Simple regression analysis of MPS y_1 on EPS x_1

Regression equation,

$$Y_1 = a+bx_1$$

Where,

MPS = Dependent variable

EPS = Independent variable

a = regression constant

b = regression coefficient

Table No. 4.13

Simple Regression Analysis of MPS on EPS

IC	a	b	Std. error	t	Sig. t	r^2
NICL	393.6	3.8	2.21	1.72	0.16	0.43
HGICL	159.75	1.83	3.34	0.55	0.61	0.07
PICL	176.19	0.66	0.07	0.13	0.9	0.004
SICL	18.68	6.39	3.93	1.62	0.17	0.39

Source: From Appendix -B

The above mentioned table shows the slope coefficient (b) of sample firms are 3.8, 1.831, 0.656 and 6.394 respectively, which shows that all sample firms have positive relation between MPS & EPS. The regression relation between MPS and EPS of all sample firms indicates that with an increase of Rs. 1 in EPS, the MPS will increase if other variables remaining constant. In constraints there will be increase in MPS of NICL, HGICL, PICL and SICL by Rs. 3.8, Rs.1.83, Rs0.66 and Rs 6.394 respectively with an increase in EPS by Rs 1 remaining other variables constant.

The intercept coefficient of sample firms are 393.6, 159.748, 176.186 and 18.684 respectively, which shows that the average MPS would be Rs. 393.6, Rs 159.748, Rs 176.186, Rs 18.684 per share respectively if the EPS were zero.

The coefficient of determination (r2) of the sample firms are o.426, 0.070, 0.004 & 0.398 respectively which indicates that only 42.6%, 7%, 0.4% and 39.8% respectively of the variation of MPS determined by the explanatory variable EPS.

***ii*. Simple Regression Analysis of MPS Y_2 on DPS X_2**

Regression equation

$$Y_2 = a + b X_2$$

Where,

MPS = Dependent variable

DPS = Independent variable

a = Regression constant

b = Regression coefficient

Table No. 4.14

Simple Regression Analysis of MPS on DPS

IC	a	b	Std. error	t	Sig. t	r^2
NICL	436.36	4.89	1.78	2.74	0.05	0.65
HGICL	160.04	4.58	4.64	0.98	0.37	0.19
PICL	185.47	0.67	4.79	0.14	0.89	0.005
SICL	63.31	10.68	9.78	0.47	0.33	0.22

Source: From Appendix -B

The above mentioned table shows the slope of coefficient (b) of sample firms are 4.89, 4.58, 0.67 and 10.68 respectively, which shows that all sample firms have positive relationship between MPS & DPS. The regression relation between MPS and DPS of all sample firms indicate that with an increase of Rs.1 in DPS, the MPS will increase, if other variables remaining constant. In contrast, there will be increase in MPS of NICL, HGICL, PICL & SICL by Rs. 4.89, Rs 6.58 & Rs 0.66 respectively with an increase in DPS by Rs.1 remaining other variables constant.

The intercept coefficient of sample firms are 436.36, 160.04, 185.47 & 63.31 respectively which shows that the average MPS would be Rs 436.36, Rs 160.04, Rs 185.47 & Rs 63.31 per share respectively if the EPS were zero.

The coefficient of determination (r^2) of the sample firms are 0.65, 0.19, 0.005 and 0.22 respectively which indicates that only 65%, 19%, 0.5% and 22% respectively of the variation of MPS determined by the explanatory variable DPS.

Although the standard error of estimate of the sample firms are 1.78, 4.64, 4.79 and 9.78 respectively, these values indicate that the probable error in the predicted value for the explanatory variable DPS of the respected company.

iii. Simple Regression Analysis of DPS Y_3 on (EPS) X_3

Regression equation

$$Y_3 = a + bX_3$$

Where,

DPS = Dependent variable

EPS = Independent variable

a = Regression constant

b = Regression coefficient

<u>Table No. 4.15</u>

Simple Regression Analysis of DPS on EPS

IC	a	B	Std. error	t	Sig. t	r^2
NICL	-3.60	0.63	0.36	1.75	0.15	0.43
HGICL	17.99	-0.21	0.31	-0.68	0.53	0.10
PICL	9.7	-3.37	0.53	-0.06	0.95	0.001
SICL	3.43	0.10	0.22	0.48	0.65	0.05

Source: From Appendix -C

The above mentioned table shows the slope of coefficient (b) of sample firms are 0.63, -0.21, -3.37, & 0.10 respectively which shows that HGICL, and PICL have negative relationship between DPS and EPS while other sample firms (i.e. NICL, SICL) have positive relation. The regression relation between DPS& EPS of HGICL and PICL indicates that with an increase of Rs.1 in EPS, the DPS will decrease by Rs 0.21,and Rs 3.37 respectively other variables remaining constant. In contrast there will be increase in DPS of NICL & SICL by Rs 0.63 and Rs 0.10 respectively with an increase in EPS by Rs 1, remaining other variable constant.

The intercept coefficient of sample firms are -3.6, 17.99, 9.7, & 0.10 respectively, which indicates that the average DPS would be Rs -3.6, Rs17.99, Rs 9.7, & Rs 3.43 per share if the EPS were zero.

The coefficient of determination (r^2) of the sample firms are 0.43, 0.10, 0.001 and 0.05 respectively which indicates that only 43%, 10%, 0.1% and 5% of the variation of DPS determined by the explanatory variable EPS.

Although the standard error of estimate of the sample firms is 0.36, 0.31, 0.53, and 0.22 respectively, these value indicate that the probable error in the predicted value for the explanatory variable EPS of the respected company.

4.3.2 The Multiple regression of MPS Y_1 on (EPS)

X_1 dividend per share (DPS) X_2 and dividend payout ratio (DPR) X_3

The regression equation,

$$Y_1 = a+b_1X_1+b_2X_2+b_3X_3$$

Where,

MPS = dependent variable

EPS, DPS & DPR = Independent variable

a = regression constant

b = regression coefficient

<u>Table No. 4.16</u>

Multiple Regressions of MPS on EPS, DPS & DPR

IC	**a**	**B_1**	**b_2**	**b_3**	**SEE**	**F**	**F. sig**	**r^2**
NICL	428.21	2.79	31.76	-14.11	28.30	22.54	0.04	0.97
HGICL	-314.55	12.67	4.78	2.85	21.70	13.22	0.07	0.95
PICL	2155.51	-78.04	168.04	-41.52	55.91	0.30	0.82	0.31
SICL	-4.53	5.44	10.42	-0.48	106.20	0.70	0.63	0.51

Source: From Appendix -E

The multiple regression of MPS on EPS, DPS and DPR shows that only HGICL have positive regression relation among the variables. The regression relation between MPS on EPS, DPS and DPR of HGICL indicates that with an increase of 1% in EPS, DPS and DPR, the MPS will increase by Rs. 12.67, Rs. 4.78 and Rs.2.85 respectively.

The NICL and SICL have positive relation with EPS and DPS but negative relation with DPR. It indicates that with an increase of 1% in EPS and DPS, the MPS will increase by Rs.2.79 & Rs.31.76 and Rs.5.44 & Rs.10.42 but with and increase of 1% in DPR the MPS will decrease by Rs. 14.11 & Rs.0.48 respectively.

Similarly, PICL and has positive relation with DPS but negative relation with its EPS and DPR. This indicates that with an increase in 1% in DPS of PICL, the MPS will increase by Rs.168.04. But with an increase in 1% in EPS and DPR of PICL the MPS will decrease by Rs.78.04.

The standard error of estimate of the sample firms is 28.30, 21.7, 55.91, and 106.2 respectively. These values indicate the possible error in the predicted value for the sample firms.

The value of coefficient of multiple determinations (r^2) of sample firms are 0.97, 0.95, 0.31 and 0.51 respectively. This indicates that 97%, 95%, 31%, and 51% variation in the MPS of sample firms are explained due to the change in EPS, DPS and DPR of the respective insurance company.

4.4 Major Findings

a) Financial indicator Analysis

EPS of most of the sample firms are in fluctuating trend, whereas EPS of SICL is in increasing trend. Among the sample firms, the C.V. of NICL & SICL is greater than other sample firms and the C.V. of PICL is lowest. It means common stocks of NICL & SICL are riskier as compared to other sample firms. The common stock of PICL is less risky as compared to other sample firms because it has lowest C.V. than others.

The DPS analysis shows that the DPS of NICL is greater and SICL is lower among sample firms. Higher dividend per share creates positive attitude of the shareholders towards the company, which consequently helps to increase the market value of shares. It shows that the CV of DPS of NICL is greater and PICL is lowest. It indicates that among the sample firms, during the period, PICL has the highest consistency in paying dividend whereas the DPS of NICL is highly fluctuating.

The analysis of MPS shows that MPS of NICL, HGICL, & PICL are fluctuating trend and MPS of SICL is in decreasing trend. It also shows that the average mean MPS of NICL is highest and average MPS of HGICL is lowest. The HGICL has highest CV of MPS and NICL & SICL has lowest CV of MPS among the sample firms. It indicates that HGICL has greater variability in MPS and its capital increasing rate is higher than others. But NICL & SICL has less variability in MPS.

The D/P ratio of HGICL is higher and SICL has lowest among all, which indicates that the ability of HGICL to pay the dividend is strong than others and SICL has weak ability to pay the dividend. The C.V. of DPR in highest of NICL and SICL and lowest C.V. of DPR of PICL indicate that the PICL's D/P ratios to common shareholders are much better than NICL, SICL and also other sample firms.

The NICL has the highest P/E ratio & SICL has lowest P/E ratio among all the sample firms. It indicates that the NICL has the highest market price per share and SICL has lowest MPS. The analysis shows that the NICL &SICL have highest C.V. of P/E ratio & HGICL has lowest, which indicates that HGICL has the highest consistency in P/E ratio whereas the P/E ratio of NICL & SICL are highly fluctuating.

The analysis also shows that the HGICL has highest EY and NICL has lowest EY. It indicates that the share of HGICL is worth buying. The analysis of CV shows that N ICL & SICL have the highest CV and PICL has lowest. It indicates that PICL has the highest consistency in EY whereas the EY of N ICL & SICL have the highest consistency in EY whereas the EY of N ICL & SICL are highly fluctuating.

The DY of HGICL is higher and SICL has lowest among all the sample firms. It indicates that the share of HGICL is worth buying. The C.V. of DY is highest of N ICL & SICL and lowest C.V. of DY of HGICL indicates that the HGICL has the highest consistency in DY whereas the DY of EICL is highly fluctuating.

b) Findings of Correlation Analysis

From the analysis, the MPS of NICL, HGICL, PICL and SICL who are paying dividend regularly, have positive correlation with their dividend component i.e. DPS, DP and DPR (exception that the MPS has negative correlation with its DPR of SICL). The correlation between MPS and EPS of all sample firms are positively correlated between MPS and EPS.

From the analysis we can conclude that there is a positive correlation between MPS and P/E ratio of sample firms.

There is negative correlation between MPS & E/Y and MPS & DY for all sample firms except NICL & SICL.

Analyzing the relation between EPS & DPS and EPS & DPR, we can see mixed type of result. NICL has positive correlation of EPS with both DPS and DPR while HGICL and PICL have negative correlation of EPS with both DPS & DPR. In the case of SICL, the EPS is positively correlated with DPS but negatively correlated with DPR.

Regarding the correlation of DPS and DPR, all sample firms except SICL have positive correlation between DPS and DPR.

Further, normally there exists positive correlation between EY and DY except HGICL.

c) Findings of Regression Analysis

i. Findings of simple regression analysis of MPS on EPS

From the analysis, it shows that all sample firms have positive relation between MPS & EPS. The coefficient of determination (r^2) of the sample firms indicates that only 42.6%, 7%, 0.4% and 39.8% of the variation of MPS determined by the explanatory variable EPS.

ii. Findings of Simple Regression Analysis of MPS on DPS

The analysis shows that all sample firms have positive relationship between MPS & DPS. The coefficient of determination (r^2) of NICL, HGICL, PICL, and SICL indicates that only 65%, 19%, 0.5% and 22% of the variation of MPS determined by the explanatory variable DPS.

iii. Findings of Simple Regression Analysis of DPS on EPS

The analysis shows that HGICL & PICL have negative relationship between MPS & DPS while other sample firms (i.e. NICL, SICL) have positive relation. The coefficient of determination (R^2) of NICL, HGICL, PICL and SICL indicates that only 43%, 10%, 0.1%, and 5% of the variation of DPS respectively are determined by the explanatory variable EPS.

iv. Findings of Multiple regression analysis of MPS on EPS, DPS & DPR

The analysis shows that only HGICL have positive regression relation among the variables. The NICL & SICL have positive relation with EPS & DPS but negative relation with DPR. Similarly, PICL has positive relation with DPS but negative relation with its EPS and DPR. The coefficient of multiple determination (R^2) of NICL, HGICL, PICL, and SICL indicates that only 97%, 95%, 31%, & 51% variation in the MPS of respective firms are explained due to the change in EPS, DPS & DPR of respective company.

CHAPTER-V

SUMMARY, CONCLUSION & RECOMMENDATION

This chapter focuses on summarizing the study held with the researcher's analysis. Also, this chapter includes conclusions of the study based on major findings. The next attempt in this chapter will be made for the recommendations on the basis of findings and conclusions. For this whole purpose, the chapter is subdivided into summary/conclusion & recommendation as given here under.

5.1 Summary/Conclusion

Since 1984, when the Government of Nepal adopted economic liberalizing and open market policy, many insurance companies are established in Nepal. The insurance companies got opportunities and appropriate environment to expand their activities, it is because the initially established companies are unable to supply credit needs and meet the market expectations that market activities towards the growth position. The stockholders have a high desire and expectation that market price of share will be higher and getting high percent of dividend from earnings. So, distributing dividend to the shareholders is effective way to achieve the trust of investors and encouraged them to invest in shares.

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

This study covers insurance companies of Nepal paying dividend. The study is based on secondary data of four insurance companies listed in Nepal Stock Exchange (NEPSE) Limited. This study covers a period of six years from 2000/01 to 2005/06.

To analyze the dividend payment practices of the companies, different financial ratios have been calculated and interpreted. Taking in mind for more elaborate and extensive analysis, company wise analysis has also been made.

In Nepal, only of few listed companies have paying regular dividend to their shareholders. Further, companies have not been following stable dividend payout policy. On the other hand the dividend payout ratio of listed companies in Nepal has not been able to distribute fair dividends. In this regards, however, insurance companies are also no exception.

In order to assess the relationship among the variables and the impact of dividend on market price of shares, available information for insurance companies are reviewed and analyzed. The simple regression analysis between MPS, EPS & DPS has been done. Also, the multiple regression analysis has been made assuming market price of share as dependent variable and EPS, DPS & DPR as independent variables.

From the analysis of various financial indicators and statistical tools of all the sample firms, following conclusions are drawn.

- From the study held by this researcher, it can be concluded that there is consistency in the dividend practices of most of the sample firms. Dividends are distributed at an ad hoc basis.
- Researcher found that the majority of the insurance companies give some priority to the earnings to get into the decision of dividend.
- It is also found that there is positive relationship between market price of share and dividend per share for most of the sample firms. It means that there is positive effect of dividend to the market price of stock in Nepalese insurance companies.
- The research also shows that there is positive relation between MPS & EPS for majority of the sample firms. It means that the earning per share affects the market price of stock in Nepalese insurance sector.
- The market prices of most of the companies have been fluctuating.
- Besides dividend, other factor also affect the market price per share e.g. EPS, PER etc. Their effects are also different for the different companies.
- It is seen that there is lack of proper legal provision regarding the dividend payment.

5.2 Recommendation

On the basis of findings and conclusions the following recommendation is made for the further applications of dividend practices to have the strong MPS in the capital market.

EPS in most of the sample firms are in fluctuating trend, therefore these companies should search the fruitful investment opportunities, plan for achieving constantly growing earning.

The DPS analysis shows that there lacks consistency in the dividend practices in all the sample firms. Therefore, these firms need to create somehow paying reasonable DPS every year. It is because regular and higher DPS creates positive attitude of shareholders towards company, which consequently helps to increase the market value of the shares. The psychological value of the shareholders is also valued as the assets of the firm.

The correlation between MPS & DPS in PICL is negative, it is because these companies have announced dividend in fluctuating trend. Therefore, other variable affected MPS more than DPS. These companies should attempt to understand the likings of shareholders and accordingly maintain dividend policy.

There is lack of proper legal provisions regarding the dividend payment. The Government as well as central bank of Nepal, Nepal Rastra Bank should pay attention in this matter for prescribing certain provisions and rules regarding the percentage of earning as payment of dividend.

The multiple regressions show that there is greater influence of DPS than EPS in the market price of stock. Therefore, to improve MPS, the firms are suggested to increase the DPS while considering other MPS influencing variables.

While making dividend decision, a minor mistake leads the insurance company to serious crisis. Due to this reason it is advised to adopt optimum dividend decision based on the following criteria:

- Optimum dividend so as to maximize shareholders wealth through increase in market price per share.
- Optimum retention for excellent expansion and modernization of Insurance Company.
- Stable or consistency in the dividend payment.

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Appendix A

Correlation Analysis.

Correlations of NICL

	EPS	DPS	MPS	DPR	DP	EY	DY	PER
EPS	1	.659	.653	.686	.659	.923	.704	.985
	.	.154	.160	.132	.154	.009	.119	.000
	6	6	6	6	6	6	6	6
DPS	.659	1	.808	.993	1.000	.430	.965	.637
	.154	.	.052	.000	.	.394	.002	.173
	6	6	6	6	6	6	6	6
MPS	.653	.808	1	.748	.808	.311	.665	.607
	.160	.052	.	.088	.052	.549	.149	.201
	6	6	6	6	6	6	6	6
DPR	.686	.993	.748	1	.993	.496	.988	.670
	.132	.000	.088	.	.000	.317	.000	.145
	6	6	6	6	6	6	6	6
DP	.659	1.000	.808	.993	1	.430	.965	.637
	.154	.	.052	.000	.	.394	.002	.173
	6	6	6	6	6	6	6	6
EY	.923	.430	.311	.496	.430	1	.559	.930
	.009	.394	.549	.317	.394	.	.249	.007
	6	6	6	6	6	6	6	6
DY	.704	.965	.665	.988	.965	.559	1	.684
	.119	.002	.149	.000	.002	.249	.	.134
	6	6	6	6	6	6	6	6
PER	.985	.637	.607	.670	.637	.930	.684	1
	.000	.173	.201	.145	.173	.007	.134	.
	6	6	6	6	6	6	6	6

Correlations of HGICL

	EPS	DPS	MPS	DPR	DP	EY	DY
EPS	1	-.322	.264	-.825	-.322	.701	-.607
	.	.534	.613	.043	.534	.121	.202
	6	6	6	6	6	6	6
DPS	-.322	1	.443	.800	1.000	-.624	.753
	.534	.	.379	.056	.	.186	.084
	6	6	6	6	6	6	6
MPS	.264	.443	1	.063	.443	-.501	-.248
	.613	.379	.	.906	.379	.311	.636

	6	6	6	6	6	6	6
DPR	-.825	.800	.063	1	.800	-.790	.855
	.043	.056	.906	.	.056	.061	.030
	6	6	6	6	6	6	6
DP	-.322	1.000	.443	.800	1	-.624	.753
	.534	.	.379	.056	.	.186	.084
	6	6	6	6	6	6	6
EY	.701	-.624	-.501	-.790	-.624	1	-.367
	.121	.186	.311	.061	.186	.	.475
	6	6	6	6	6	6	6
DY	-.607	.753	-.248	.855	.753	-.367	1
	.202	.084	.636	.030	.084	.475	.
	6	6	6	6	6	6	6
PER	-.595	.616	.615	.716	.616	-.986	.272
	.212	.193	.194	.110	.193	.000	.602
	6	6	6	6	6	6	6

Correlations of PICL

	EPS	DPS	MPS	DPR	DP	EY	DY	PER
EPS	1	-.032	.065	-.428	-.032	.528	-.144	-.538
	.	.952	.902	.397	.952	.281	.785	.271
	6	6	6	6	6	6	6	6
DPS	-.032	1	.072	.916	1.000	-.035	.853	.095
	.952	.	.893	.010	.	.947	.031	.858
	6	6	6	6	6	6	6	6
MPS	.065	.072	1	.023	.072	-.798	-.446	.798
	.902	.893	.	.966	.893	.057	.375	.057
	6	6	6	6	6	6	6	6
DPR	-.428	.916	.023	1	.916	-.228	.837	.291
	.397	.010	.966	.	.010	.664	.038	.576
	6	6	6	6	6	6	6	6
DP	-.032	1.000	.072	.916	1	-.035	.853	.095
	.952	.	.893	.010	.	.947	.031	.858
	6	6	6	6	6	6	6	6
EY	.528	-.035	-.798	-.228	-.035	1	.339	-.972
	.281	.947	.057	.664	.947	.	.511	.001
	6	6	6	6	6	6	6	6
DY	-.144	.853	-.446	.837	.853	.339	1	-.272
	.785	.031	.375	.038	.031	.511	.	.601
	6	6	6	6	6	6	6	6
PER	-.538	.095	.798	.291	.095	-.972	-.272	1
	.271	.858	.057	.576	.858	.001	.601	.
	6	6	6	6	6	6	6	6