# CHAPTER I
# INTRODUCTION

## 1.1 Background of the study

Today, there are many countries in the world. Some countries are developed, some are developing and some are least developed. The economy of which country is very strong are called as developed countries while those countries whose economy is weak are said as developing or least developed countries. The degree of resource utilization to production goods and services with development of market to consume etc. is the major indicators of economic development of a country. There are mainly two types of market on the basis of nature of product, commodity market and financial market. The market where the activities of exchanging money, lending the money, trading of security etc. are performed called financial market. Financial market can be divided into money market and capital market. In money market short term funds are traded where in capital market long term funds are traded. (Shrestha,1980)

The overall development of a country largely depends upon the economic development. Development of capital market and money market is essential to develop the economy of a country. Banks, finance companies and other financial institutions help to develop the money market as well as the capital market by mobilizing the deposit amount which are collected from public and investing the sum enterprises. Commercial banks are those which collect and invest financial resources to the productive and commercial areas to earn profit. Financing in the different economic fields like, industries trade, agricultural etc to generate profit, is the main objective of commercial banks. In addition to the primary function of collecting deposit and lending to others, it undertakes a wide variety of functions to assist the customers by performing agency functions like collection of cheques, bills, dividends etc or behalf of the customer; payment of insurance premium, subscription of rent, salary etc, transfer of funds, purchase and sale of securities etc.

A part from the agency functions, the commercial banks also provides certain general utility services; like custody deposits and safe deposits locker facilities; issuing of traveler's cheque, credit cards, letter of credits and gift cheques or voucher. A commercial bank also acts as a referee and guarantor of its customer to third parties.

All the business companies are established to earn more profit. Shareholders are the real owner of a company who invest their money for generating more income. Shareholders get dividend from out of the profit and benefited directly. Instead of paying dividend a firm can retain the fund to exploit other growth opportunities. The shareholders can expect benefit indirectly through future increase in price of stock. Thus shareholder wealth can be increased through either dividend or capital gains. So dividend policy involves the decision to pay out earnings versus retaining them for reinvestment in the firm.

Dividend policy is an integral part of financial decision. The dividend policy is a major decision for the board of directors as the board of directors has to decide between paying out to shareholders and keep them happy in the short run or retain for investment which may be more beneficial to the shareholder in the long run. Dividend policy determines the division of earning between payments to stockholders and reinvestment in the firm. Retained earnings are one of the most significant sources of funds for financial corporate growth, but dividends constitute the cash flows that accrue to stockholders. (Baker,H.K & Farrely,1985)

Dividend can be distributed to shareholders by a company in form of cash, shares or both. Some companies paid dividend whole amount of profit as dividend for good image, some retained all amount for reinvestment and same partially paid the amount as dividend.

In Nepal, there are few numbers of companies which pay stable dividend. Other are not stable in the payment of dividends and some companies which are not paying any dividend because they have lack of profit. In case of Joint Venture Commercial banks they are paying dividing to attract the Investors and they are the leading companies in the capital Market as their number of transactions and market price per share is usually high. They bring the new trend to distribute the dividend, which encourage the investors to invest in the companies and mobilize the fund.

So, this study aims to mobilize the fund prevailing practice and policies, relevant factors of some Nepal's listed Commercial banks and financial companies regarding

the difference in policy adopted by them considering size of dividend and its impact in compare with the listed manufacturing companies.

### 1.2 Focus of the Study

The study is focused at assessing the prevailing practices of Nepalese listed companies regarding dividend .For that the study will concentrate on review of dividend policy of the selected companies and the assessment of the effect of dividend decision on the market price of stock and wealth position of the shareholders.

### 1.3 Statement of the Problem

Shareholders make investment in equity capital with the expectation of increasing their wealth. Dividend is a kind of earnings that the shareholders expect from their investment. But the dividend decision is still a fundamental as well as controversial area of managerial function. The affect of dividend policy on market price of share is a subject of long standing arguments. But, still there is no single conclusive result regarding the relationship between dividend payment and market price of the share.

There is no controversy that when a firm gets much earning, then the shareholders would expect much dividend. But earnings are also treated as financing sources for the firm. if the firm retains the earnings, its repercussion can be seen in many Factors such as decreased leverage ratio , expansion of activities and increase in profit in succeeding years whereas if the firm pays dividends , it may need to raise capital through capital market which may dilute the ownership control of existing shareholders. If the firm takes loan or raises debenture, it will affect on risk characteristics of the firm .Therefore, there are many dimensions to be considered on dividend theories, policies and practices.

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

.So it is necessary for the management to understand how the dividend policy affects the market value of the firm or market price of the stock or the wealth position of the shareholders.

### 1.4 Research Questions

Thus, this study seeks to answer the following question:

1. What are the prevailing practices of the Nepalese listed companies regarding their dividend policies?
2. What are the reasons behind stock price increasing after the announcement of the dividend?
3. Is there any consistency in EPS, DPS, MPS and DPR?
4. What are the factors that affect the dividend and valuation of the firm?
5. Does the dividend decision affect the stock price of the different companies differently?

### 1.4 Objectives of the Study

The major objective of the study is to obtain in-depth knowledge about the impact of dividend policy adopted by the selected companies to its market price of shares and the overall valuation of the firms .Other specific objectives are:

1. To identify the prevailing dividend policy adopted by the listed companies;
2. To analyze, the stock price movement after announcing the dividend decisions by the listed companies (Banking, Financing and Manufacturing).
3. To examine the value of share and earning position of the organization.
4. To suggest and recommend the appropriate dividend policy to policy makers and executives to overcome various issues and gaps based on the findings of the analysis.

### 1.5 Significance of the Study

Dividend is a source of return to shareholders. Shareholders invest in shares for the purpose of getting high return and maximize their wealth position .The dividend policy is an effective way to attract new investors, retain existing investors, and make them happy as well as to maintain the goodwill and desired controlling power in the management of the firm.

In Nepal, due to lack of enough knowledge, people are investing haphazardly in the shares .There is not adequate research conducted so far to improve the situation .Hence, it is necessary to establish clear conception about the return resulting from investing in the stocks, this thesis will help to overcome this gap to some extent and has considerable importance .It is aimed at providing important information to the investors and respective firms that are taken as sample. The importance of the study can be pointed out as follows:

- This research work will provide vital information about the impact of dividend on market price.
- This study will make suggestion and recommendation that will be helpful for further researchers, investors.
- This study will help management and policy maker in setting and making a suitable dividend policy.
- This study may be useful to government for policy making, controlling, and monitoring.

### 1.6 Limitation of the Study

The limitation of the study is:

- The study is mainly based on the secondary data, so the accuracy of the findings depends on the reliability of available information.
- Due to time and resource constraint only a few listed companies of different areas of business have been taken under consideration .Thus, the findings may not be applicable to other remaining companies.
- The data covers for the fiscal year 2060/61 to 2064/65.
- Among the different determinants of the market price of the stock, only cash dividend, stock dividend and earnings are taken for the analysis.
- Companies hesitate to provide unpublished data it is not possible to reach at up to date conclusion. Thus these couple limitation may weaken the generalization.

## 1.7 Scheme of the Study

This study has five section including Introduction, Review of Literature, Research Methodology, Data Presentation and Analysis major findings and Summary, Conclusion and Recommendation.

**Chapter 1: Introduction**

First chapter deals with the background of the study, focus of the study, statement of problems, objectives of the study, limitation of the study and scheme of the study.

**Chapter 2: Review of Literature**

Second chapter includes some relevant literature available on the subject matter of the study; it consists of literature on emergence of concept of dividend policy from the review of books, articles and thesis related to the study field.

**Chapter 3: Research Methodology**

This chapter contains framework and procedure of the study, it deals with research methodology used to carry out the research, It includes research design, population and sample, sources and techniques of data collection, tools and techniques of data analysis.

**Chapter 4: Data Presentation and Analysis**

This chapter is heart of the study- This chapter contains presentation of data, their analysis and interpretation using financial and statistical tools such as financial indicators and variable analysis, simple regression analysis, correlation coefficient analysis etc.

**Chapter 5: Summary, Conclusion and Recommendation**

Last chapter deals with suggestion, which includes the summary of the main findings conclusion of the study and recommendation.

Finally, appendices contain list of bibliography, copies of different sheets having information required for the study and different basic calculations.

# CHAPTER II
# REVIEW OF LITERATURE

## 2. Introduction

In this chapter, review of concepts relating to profit planning and control and previous studies have been presented. Such reviews provide the conceptual foundation for the study. Therefore, this chapter is divided into two parts, viz.

- Theoretical review.
- Review of Related studies.

## 2.1 Theoretical Review:

It is the first part of review of literature. This review consists of theoretical review from text book, reference books and practice in dividend policy and its impact on market prices of stock.

"The functions of finance involve three major decisions a company must make: the investment decision, financing decision, and the dividend decision. Each must be considered in relation to firm's objective; an optimal combination of the three will create value."( James S. Van Horne,1929)

Dividend refers to a portion of earning, which is distributed to shareholders in return of their investment in share capital. It is the periodic payment made to the shareholders to compensate them for the use of and risk to their investment. The important aspect of dividend policy is to determine the amount of earnings to be distributed to shareholders and the amount to be retained in the firm. Retained earnings are the most significant sources of financing the growth of the firm. On the other hand, dividends may be considered desirable from shareholders' point of view as they tend to increase their current wealth.

"The firm's decision to pay dividends may be shaped by two possible view points. When dividend decision is treated as financing decision, the net earnings of the firm may be considered as a source of long term funds. With this approach, dividend will be paid only when the firm does not have profitable investment opportunities. On the other hand, because of market imperfections and uncertainty, shareholders may give a

higher value to the near dividends than the future dividends and capital gains. Thus the payment of dividends may significantly affect the market price of the share. Higher dividends increase the value of the shares and low dividends reduce the price of share. In other to maximize wealth under uncertainty, the firm must pay enough dividends to satisfy investors."(William H. Dean, 1973)

"Most of the inv estors expect dividend to continue in each year as well as to receive price when they sell the stock.": The expected final stock price includes the returns of the original investment plus a capital gain. If the stock is actually sold at price above its purchase price, the investor will receive a capital gain as such the shareholders expect an increase in market value of the common stock over time. At the same time, they also expect firm's earning in a form of dividend. So the shareholders may satisfy with dividend or capital gain. "Financial Manager is therefore concerned with the activities of corporation that affect the well being of stockholders. That well being can be partially measured by dividend received but a more accurate measure is the market value of stock."(J.fred Weston,Eugene F.brigham,1989)

### 2.1.1 Forms of Dividend

Generally, dividends are paid in cash but when the company is unable to pay cash dividend they use different forms of dividend payment for satisfying stockholders. Such forms of dividends are stock dividend, script dividend, property dividend, bond dividend etc. But in Nepalese context, most of the companies are paying cash and stock dividend.

#### i) Cash Dividend

Cash dividend is one form of dividend, which is distributed to shareholders in form of cash out of company's profit. "The cash account and the reserve account of a company will be reduced when the cash dividend is paid. Thus, the total assets and net worth of the company are reduced when cash dividend is distributed. The market price of the share drops in most cases by the amount of the cash dividend distributed." (I.M. Pandey, 1979)

#### ii) Stock Dividend

If additional shares are issued to existing shareholders instead of cash dividend, it is known as stock dividend. "A stock dividend represents distribution of shares in

addition to the cash dividend to the existing shareholders." This has the effect of increasing the number of outstanding share of the company. The shares are distributed proportionately. Thus, the shareholders retain their proportionate ownership of the company. The declarations of bonus share increases the paid-up share capital and reduce the reserves and surplus of the company. The total net worth is not affected by the issue of bonus shares (M.K. Shrestha, 1980).

**iii) Script Dividend**

A dividend paid in promissory notes is called script dividends. "Script dividends are those paid in company's promise to pay instead of cash." When earning of the company justify dividends but the company's cash position is temporarily weak and does not permit cash dividend, it may declare dividend in the form of script. Script dividend may bear a definite maturity date or it may be left to the directors. Such dividends may be interest bearing or non-interest bearing (Miller M.H. & Modigliani,1966).

**iv) Property Dividend**

If payment of dividend made in the form of property rather than cash, than it is called property dividend. This form of dividend may be followed when there are assets that are no longer necessary in operation of the business or in extra ordinary circumstances. Companies' own products and securities of subsidiaries are the examples that have been paid as property dividends R.R. Gautam, 1998).

**v) Bond Dividend**

Bond Dividend is a dividend that is distributed to the shareholders in form of bond. When the company generates more profit for a long time, it is better to issue a bond which carries certain interest rate. In other words, corporation declares dividend in form of its own bond with a view to avoid cash outflows.

### 2.1.2 Theories of Dividend

1) Residual Theory of Dividend
2) Stability Theory of Dividend

### 2.1.2.1 Residual Theory of Dividend

According to one school of thought, the residual theory of dividends suggests that the dividend paid by a firm should be viewed as a residual amount left after all acceptable investment opportunities have been undertaken. Dividend policy can be viewed as one of a firm's investment decision. A firm that behaves in this manner is said to believe in the residual dividends. According to this theory, dividend policy is a residue after investment whether or not a company pays dividends depends on the availability of investment opportunity.

The starting point in this theory is that investors prefer to have the firm retain and reinvest earning, instead of paying dividends, if the return on reinvestment is higher than the opportunity cost of fund for the investors. The dividend under residual dividend policy equals the amount left over from earning after investment, no dividends are paid and new shares are sold to cover deficit for investment that is not covered. If there is not any investment opportunity then cent percent earning is distributed as dividend to the shareholders. Dividend is therefore merely a residue i.e. percent remaining after all equity investment needs arc fulfilled (Irwin Friend & Marshall Pocket, 1964).

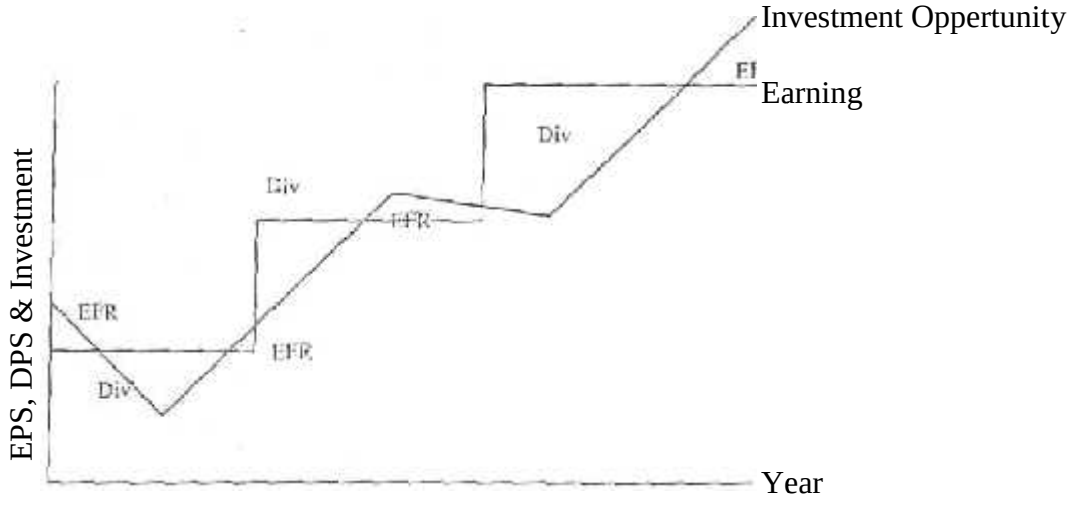



*Fig. 2.1: EPS and DPS relationship under Residua! Policy*

In the above figure, the shaded part shows the dividend paid after deducting the fund required for investment. When the earning does not meet the fund required for investment, the firm will bring Required External Fund (EFR).

As long as there are investment projects with higher returns, the firm retains the earnings to invest in such profitable projects rather than paying dividends. The firm grows at a faster rate when it accepts highly profitable investment projects. External equity could be raised to finance investments. But the retained earnings are preferable because unlike external equity, they do not involve any floatation costs. The distribution of cash dividend causes a reduction in internal funds available to finance profitable .investment opportunities and thus, either constrains growth or requires the firm to find other costly sources of financing. Thus, earning may remain undistributed as a part of a long-term financing decision. The dividend paid to shareholders represents a distribution of earnings that cannot be profitably reinvested by the firm. With this approach, dividend decision is viewed merely as a residual decision.

**2.1.2.2 Stability Theory of Dividend**

Dividend stability refers to the consistency in stream of dividend. In other words, stability of dividend means regularity in paying dividend even though the amount of dividend may fluctuate from year to year. "Stability of dividends is considered as a desirable policy by the management of most companies. Shareholders also generally favour this policy and value stable dividends higher than the fluctuating ones. All other things being the same, stable dividend may have a positive impact on the market price of the share." (I.M Panday,1995)

By stability, we mean maintaining the position of the firm's dividend payments in relation to a trend line, preferably one that is upward sloping. There are some reasons to believe that a stable dividend policy does lead to higher stock prices. First, investors are generally expected to value more highly dividends they are sure of receiving, since fluctuating dividends are riskier than stable ones. Accordingly, the same average amount of dividend received under a fluctuating dividend policy is likely to have a higher discount factor applied to it than is applied to dividends under a stable dividend policy. This means that the company with stable dividend policy will have a lower required rate of return or cost of equity capital than one whose dividend fluctuates. Second, many stockholders live on income received in the form of dividends. These stockholders are greatly inconvenienced by fluctuating dividends and they will pay a premium for a stock with a relatively assured minimum dollar

dividend. Third, from the stand point of both the corporation and its stockholders is that, stability of dividend is desirable for the requirement of legal listing.

There are three distinct forms of such stability of dividend payments. They are:

i) Constant Dividend per share
ii) Constant Dividend pay out ratio
iii) Low Regular Dividend plus extra dividend

**i) Constant Dividend per share**

The policy of constant dividend per share follows a policy of paying a certain fixed amount per share as dividend every year irrespective of the fluctuations in the earnings. This policy does not imply that the dividend per share or dividend rate will never be increased. When a company reaches new level of earnings and expects to maintain it, the annual dividend per share may be increased.( I.M Panday,1995)

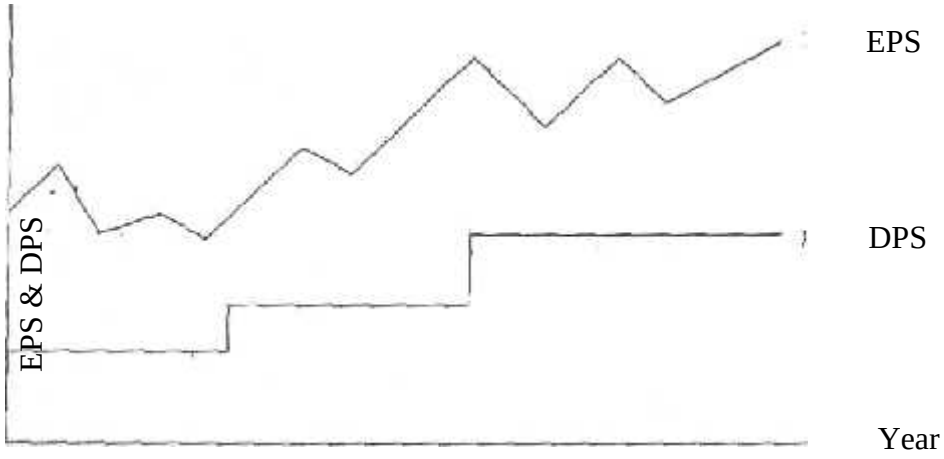


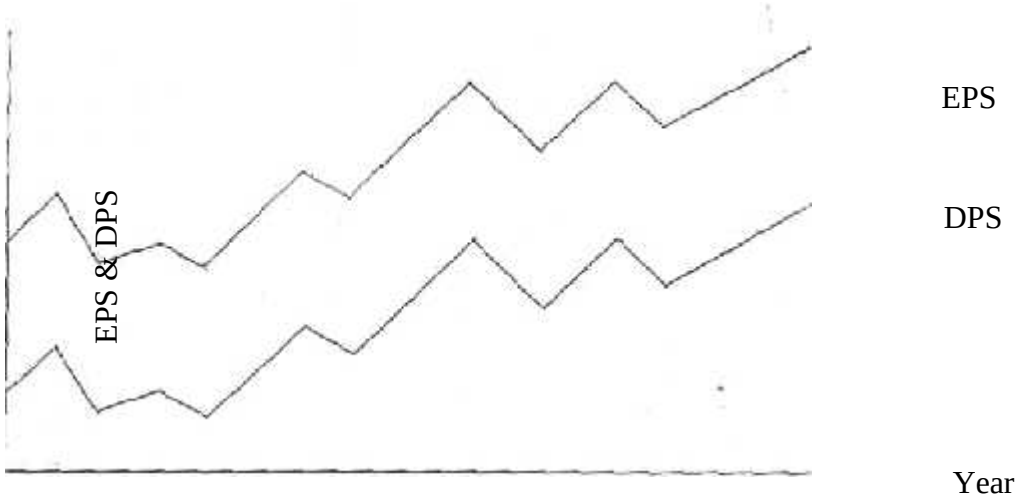

Fig. *2.2: EPS and DPS relationship under Constant Dividend per share policy*

It is easy to follow this policy when earnings are stable. If the earning pattern is widely fluctuated, it is difficult to maintain such a policy.

The dividend policy of paying a constant amount of dividend per year treats ordinary shareholders somewhat like preference shareholders without taking into account the firm's or shareholders' investment opportunities. Those investors who have dividends as the only source of their income prefer the constant dividend policy. They are hardly concerned about the changes in share prices. In the long-run, such behavior helps to stabilize the market price of the share

**ii) Constant Dividend Payout Ratio**

The ratio of dividend to earnings is known as payout ratio. Some companies may follow a policy of constant payout ratio, i.e. paying a fixed percentage of net earnings every year. With this policy, the amount of dividend will fluctuate in direct proportion to earnings.




Year *Fig. 2.3: EPS and DPS relationship under Constant Dividend Payout Ratio*

This policy is related to company's ability to pay dividends. If the company incurs losses, no dividends shall be paid regardless of the desires of shareholders. Internal financing with retained earnings is automatic when this policy is followed. At any given payout ratio, the amount of dividends and additions to retained earnings increases with increasing earnings and decreases with decreasing earnings. This policy simplifies the dividend decision, and has the advantage of protecting a company against over or under payment of dividend. It ensures that dividends are paid when profits arc earned and avoided when it incurs losses. (Brandt, 1972)

**iii) Low Regular Dividend plus Extra Dividend**

According to this policy, the company pays fixed amount of stable dividend to the shareholders to reduce the possibility of ever missing dividend payment and in years of market prosperity, additional dividend is paid over and above the regular dividend. When normal condition returns, the company cuts the extra dividend and returns in its normal dividend payment. This types of a policy enables a company to pay constant amount of dividend regularly without default and allows a great deal of flexibility for supplementing the income of shareholders only when the company's earning are higher than the usual, without committing itself to make large payments as a part of the future fixed dividend.

### 2.1.3 Factors Influencing Dividend Policy

A firm's dividend policy is influenced by a large number of factors. Some factors affect amount of dividend and some others affect types of dividend. Legal provision, Firm's liquidity position, need to repay debt, restrictions imposed by debt holders, expected rate of return, stability of earnings, shareholder's personal tax etc., are the major factors affecting dividend policy, which are described below:
(Shrestha, M.K. 1980)

**1. Legal Requirements**

There is no- legal compulsion on the part of a company to distribute dividend. However, there are certain conditions imposed by law regarding the way of distributing dividend. Basically, we find the following three rules relating to dividend payment.

**i) The net profit rule**

The net profit rule states that dividends can be paid out of present or past earnings. However, it should be recognized that dividends greater than the sum of current earnings and past accumulated earnings could not be made.

**ii) The capital impairment rules**

This rule states that the firm cannot pay dividend out of its paid up capital, because it adversely affects the firm's equity base threatening the position of creditors. The basic idea behind this rule is to protect the claim of creditors by maintaining sufficient equity base.

**iii) Insolvency Rule**

If a firm's liabilities exceed the assets or if the firm is unable -to pay its current obligations, the firm is considered to be insolvent. If the firm is insolvent, it is strictly prohibited by law to pay dividends.

**2. Firm's Liquidity Position**

Dividend payout is also affected by the firm's liquidity position. No matter firm's balance sheet shows sufficient retained earnings, they arc not held in cash, rather they are reinvested into firm's assets. Because of this, the firm may not be able to pay cash dividends.

**3. Repayment Need**

Firm uses several form of debt financing for satisfying its investment needs. These debts are to be repaid at the maturity. The firm has generally two alternatives regarding the repayments of debt: either it can issue alternative securities to repay the existing debt at maturity or it can make provisions out of its earnings for the purpose of repayment.

**4. Restriction imposed by debt holders**

Debt holders may impose certain restrictions upon the firm regarding dividend payment. The restrictions may be such that the firm is prohibited to pay dividend out of past retained earnings in the book of company before performing such debt contract, or the firm may be restricted by its preferred stock holders to pay any dividends on common stock unless and until the firm pays its entire accrued dividend on preferred stock.

**5. Expected rate of return**

The quantum of dividend payment also depends on the expected rate of return on the investment. If a firm has relatively higher expected rate of return on its investment, the firm prefers to retain the earning for reinvestment rather than distributing cash dividends.

**6. Stability of earnings**

If a firm has relatively stable earnings it is more likely to pay relatively larger dividend than a firm with relatively fluctuating earnings. The firm with unstable earnings is relatively uncertain about its future earnings so that it prefers to retain more from current earnings.

**7. Desire for Control**

When the needs for additional finance arise, the existing management of the, firm may not prefer to issue additional common stock because of the fear of dilution in control on management of the company.

**8. Access to the capital markets**

If a firm has easy access to capital markets in raising additional financing, it does not require keeping more retained earnings. However, smaller and newly established firm generally finds difficulties in raising funds externally from capital market.

**9. Stockholders' individual tax situation**

For a closely held company, shareholders prefer relatively lower cash dividend because of higher tax to be paid on dividend income. The stockholders in higher personal tax bracket for closely held companies prefer capital gain rather than dividend gains.

Only the above-mentioned things are not enough to determine a sound dividend policy. Other many insights and considerations have to be taken into account. Such are: change in government policies, prospects of future growth, maturity and age of corporations, informational content of dividend and so on.

### 2.1.4 Legal Provisions Regarding Dividend Practice in Nepal

Nepal Company Act- 2063, (NRB Circular 2063) makes some legal provisions for dividend payment in **Nepalese firms/organizations. These provisions are as follows.**

**Section 2(m)** states that bonus shares mean shares issued in the forms of additional shares to shareholders by capitalizing the surplus from the profits or the reserve of a company. The term also denotes an increase in capitalized surplus or reserve funds.

**Section 47** has prohibited company from purchasing its own share. This section states that no company shall purchase its own shares or supply loan against the security deposits of its own share.

**Section 137** is regarding bonus share and sub-section (1) states that the Company must inform the office before issuing bonus shares under sub section (1) this may be done only by passing special resolution by the general meeting.

**Sub-Section (1):** Except in the following circumstances, dividends shall be distributed among the shareholders within 45 days from the date of decision to distribute them.

a) In case any law forbids the distribution of dividends.

h) In case the right to dividend is disputed.

c) In case dividends cannot he distributed within the time limit mentioned above owing to circumstances beyond anyone's control and without any fault on the part of the company.

**Sub Section (2):** In case the dividends are not distributed within the time limit mentioned in sub-section (1), this shall be done by adding interest at the prescribed rate.

**Sub-section (3);** only the person whose name stands registered in the register of existing shareholders at the time of declaring dividends shall be intended to it.

The above mentioned sections and sub-sections of company Act. -1997 indicates that the repurchase of own stock is not permitted to Nepalese company. The sections only speak about bonus share issues. This Act is not enough regarding dividend policy.

Nepal Government Decision Regarding Dividend Payment by the Government Corporations (June 14,1998)

Then HMG on June 14, 1998 has decided some dividend payments aspect for government corporations. The decisions are as mentioned below;

- Dividend should be paid in profitable years. Though there are cumulative losses,

dividend is to be paid if cash flow is sufficient to distribute dividend.

- In case of un-audited accounts, interim dividend should be paid on the basis of provisional financial statement.
- Dividend rate will not be less than the interest rate on fixed deposit of commercial bank, which is owned by government. In case of insufficiency of profit to distribute in above mentioned rate, concerned corporation should send proposal of new rate of dividend to the Finance Ministry through Unison ministry and should do what so ever decision is given thereof.
- The decision regarding distribution of annual distribution of annual net profit shall not be made without prior acceptance of Finance Ministry. All incentives, except those to be paid by law, shall not be distributed unless the amount of dividend is not paid to government.
- Those corporations operating monopoly situation should repay all amounts of profits to government except the amounts of bonus, tax and the amount needed to expand and develop the business. The amount separated for expansion and development of business will not be more than profit for the year and this amount should not be more than total paid up capital. The entire amount kept aside for above provision should be paid as dividend if is not used within three years.
- Concerned BOD and top management will be responsible for implementation of these dividend policies.
- Ministry of Finance shall make necessary' arrangement regarding fixation of dividend percentage by coordinating all concerned corporation and ministries.

The above stated HMG decision is solely concerned to the dividend decision of government owned corporations and does say nothing about other privately owned companies.

## 2.2 Review of Major Studies

In this section of the chapter, an attempt is made to review the various studies of past researches relating to the dividend policy and market price of shares in financial, management.

### 2.2.1 Modigliani and Miller's Hypothesis

Modigliani and Miller (1966) have provided the most comprehensive argument for the irrelevance of dividends. According to MM. "Dividend policy of a firm is irrelevant,

as it does not affect the wealth of the shareholders"[17]. They hold that the value of the Firm depends on the earning power of the firm's assets, or its investment policy. When investment decision of the firm is given, dividend decision split of earnings between dividends and retained earnings is of no significance in determining value of the firm- According to them, the effect of dividend payments on shareholders' wealth is exactly offset by other means of financing.

The MM approach is based on the following critical assumptions:

- The firm operates in perfect capital markets where investors behave rationally, information is freely available to all and transactions and floatation costs do not exist. Perfect capital markets also imply that no investor is large enough to affect the market price of the share.
- Taxes do not exist, or there are no differences in die tax rates applicable to capital gains and dividends. This means investors value a rupee of dividend as much as a rupee of capital gains,
- The firm has fixed investment policy.
- Risks of uncertainty do not exist.

MM provide the proof in support of their argument in the following manner:

**Step 1:**

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

$$P_o = \frac{(D_1 + P_1)}{(1+K_e)}$$

Where,

$P_O$ = Market price at the beginning or at the zero period

$K_e$ = Cost of equity capital

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

$P_1$ = Market price of share at the end of the period

**Step 2:**

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

$$P_o = \frac{(nD_1 + P_1)}{(1+K_e)}$$

Where,

n = Number of shares outstanding at the beginning period

**Step 3:**

If the firm's internal sources of financing are not sufficient to finance the new investment needs of the funds, in that case issuing the new share is the other alternative. Say Δn is the number of newly issued equity share at the end of year 1 at price $P_1$ then,

$$nP_o = \frac{[\{D_1 + (n + \Delta n)\, P1\} - \Delta n\, P_1]}{(1 + K_e)}$$

**Step 4:**

If a firm were to finance nil investment proposals, the total amount new shares issued would be given by,

$$\Delta nP_1 = I - (E - nD_1)$$

or $\Delta nP_1 = I + E + nD_1$

Where,

$\Delta nP_1$ = Amount raised from the sale of shares to finance the project

I = Total amount of capital required for the project

E = Earning of the firm during the period

$(E-nD_1)$ = Retained Earnings

$nD_1$ = Total dividend paid

**Step 5:**

If value of nP1is substituted from equation of step 4 into equation of step 3 then,

$$nP_o = \frac{[\{D_1 + (n + \Delta n)\, P_1\} - (I - E + nD_1)}{(1 + K_e)}$$

$$\text{or,} \quad nP_o = \frac{D_1 + (n+\Delta n)\, P_1 - I + E - nD_1}{(1 + K_e)}$$

$$\text{or,} \quad nP_o = \frac{(n+\Delta n)\, P_1 - I + E}{(1 + K_e)}$$

**Step 6:**

There is no any role of dividend ($D_1$) in above equation. So Modigliani and Miller conclude that dividend policy is irrelevant and dividend policy has no effect on the share price.

In this way, according to Modigliani and Miller's study, it seems that under condition of perfect markets, rational investors, absence of tax discrimination between dividend income and capital gain, given the firm's investment policy is fixed, its dividend policy may have no influence on the market price of share. However, the view that dividend is irrelevant is not justified. The assumption of perfect capital market mechanism and rational investors prove faulty assumption in case of Nepal. Floatation cost, transformation cost and the tax effect on capital gain are neglected by MM. that is not appropriate. The assumption “in a world without taxes” one critic satires; such a world is probably the moon or other planet in the universe.

### 2.2.2 Walter's Study

Professor James E. Walter (1966), argues that the choice of dividend policies almost always affect the value of the enterprise. The approach developed by Prof. Walter is considerable interest. Walter conducted a study on dividend and stock. prices in 1966.

The main point which he emphasizes is that there is a significant relationship between the internal rate of return and cost of capital and determining factors to retain profit or distribute dividends. As long as the internal rate is greater than the market rate the stock price will be enhanced by retention of earnings and will inversely affected by dividend payout.

Walter's model is based on following assumptions:

- The firm finances all investment through retained earnings; that is debt or new equity is not issued,
- The firm's internal rate of return and its cost of capital are constant.

- All earnings are either distributed as dividends or reinvested internally immediately.
- Beginning earnings and dividends never change. The values of the earnings per share (EPS) and the dividend per share (DPS) may be changed in the model to determine the results, but any given values of EPS or DPS are assumed to remain constant forever in determining given value.
- The firm has a very long or infinite life.

He insists on the fundamental premise that stock prices over the long period reveal the present value of the expected dividends. The retained earnings affect stock prices in consideration of their impact on future dividends. Operating on the objective of maximizing the wealth position of the ordinary shareholders, the appropriate dividend payout is suggested by following formula.

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

Where,

P = Market price per share

DPS = Dividend per share

EPS = Earning per share

r = internal rate of return (average)

k = cost of capital or capitalization rate

According to Walter's model, the optimal dividend policy depends on the relationship between the firm's internal rate of returns, r, and its cost of capital, k. Walter's view on the optimum dividend payout ratio can be summarized as follows.

**Growth Firms (r>k):**

Growth firms are those firms which expand rapidly because of ample investment opportunities yielding returns higher than the opportunity cost of capital. These firms are able to reinvest earnings at a rate which is higher than the rate expected by shareholders. They will maximize the value per share if they follow a policy of retaining all earnings for internal investment. Thus, optimum payout ratio for the

growth firm is zero. The market value per share P increases as payout ratio declines when r>k.

**Normal Firms (r=k)**

Most of the firm do not have unlimited surplus-generating investment opportunities, generating returns higher than the opportunity cost of capital. After having exhausted such profitable opportunities, these firms earn on their investments' rate of return equals to the cost of capita!, r=k. For the normal firms with r=-k, the dividend policy has not effect on the market value per share in this model. There is no unique optimum payout ratio for a normal firm. .One dividend policy is as good as the other. The market value per share is not affected by the payout ratio when r=k.

**Declining Firms (r<k)**

Some firms do not have any profitable investment opportunities to invest the earnings. Such firms would earn on their investment rates of return less than the minimum rate required by investors. Investors of such firm would like earnings to be distributed to them so that they may either spend it or invest elsewhere to get a rate higher than earned by the declining firms, The market value per share of declining firm with r<k will be maximum when it does not retain earnings at all. Thus, the optimum payout ratio for a declining firm is 100 percent, P increases as payout ratio increases when r<k.

Thus, in Walter's model, the dividend policy of the firm depends on the availability of investment opportunities and the relationship between the firm's internal rate of return and its cost of capital. The firm should use earnings to finance investments if r>k; should distribute all earnings when r<k and would remain indifferent when r=k. Thus, dividend policy is a financing decision. When dividend policy is treated as a financing decision, the payment of cash dividends is a passive residual.

**Limitation of Walter's Model**

Walter's model is quite useful to show the effects of dividend policy on an all equity firms under different assumptions about the rate of return. However, the simplified nature of the model can lead to conclusions which are not true in general, though true for the model. Following are the limitations of the model:

**No External Financing**

Walter's approach assumes that retained earnings finance the investment opportunities of the firm only and no external financing debt or equity is used for the Financing. When such a situation exists, either the firm's investment or its dividend policy or both will be sub optimum. This means, when the firm's earnings are not adequate to exploit all investment opportunities having return at least equal or more than cost of capital, this approach does not allow financing the gap by using other sources.

**Constant r and k**

Walter's approach is based on the assumption that r and k are constant. In fact, r decreases as more investment occurs and k changes directly with the firm's risk. Walter's model may not be applicable in case of Nepalese company because in the other assumptions also i.e., EPS and DPS are constant.

### 2.2.3 Gordon's Study

One very popular model explicitly, relating the market value of the firm to dividend policy is developed by Myron Gordon (1929). He modified the Walter's model for determining the market price of the stock. This model explains that investors are not indifferent between current dividend and retention of earnings with the prospects of future dividends, capital gain and both. The conclusion of his study is that investors give more emphasis to the present dividend more than future capital gain. His argument stresses that an increase in dividend payout ratio leads to increase in the stock price for the reason that investors consider the dividend yield is less risky than expected capital gain.

Hence, investors' required rate of return increases as the amount of dividend decreases. This means there exist positive relationship between the-amount of dividend and stock prices.

His model is based on the following assumptions:

- The firm is an all-equity firm.
- Internal rate of return and cost of capital are constant.
- The firm and its stream of earnings are perpetual.
- The corporate taxes do not exist.

- The retention ratio once decided upon is constant. Thus the growth rate g = b × r is constant.
- $K_e$ must be greater than g
- No external financing is available, so retained earnings would be used to finance for any expansion.

Based on the above assumption, Gordon has provided following formula, to determine the market value of a share.

$$P = \frac{EPS\ (1 - b)}{Ke - br}$$

Where,

| | | |
|---|---|---|
| P | = | Market Price of share |
| EPS | = | Earnings per share |
| b | = | Retention Ratio |
| 1- b | = | Dividend payout Ratio |
| $K_e$ | = | Equity capitalization rate |
| b×r | = | Growth Rate (g) |

According to this model, the following facts are revealed. In the case of growth firm, share price tends to decline in correspondence with increase in payout ratio, i.e. high dividend corresponds to earnings leads to decrease in share price. Therefore, dividends and stock prices are negatively correlated in growth firm. But in the case of normal firm share value remain constant regardless of change in dividend policies. It means dividend and stock prices are free from each other in normal firm. In the case of declining firm, share price tends to rise in correspondence with raise in dividend payout ratio. It means dividend and stock prices are positively correlated with each other in a declining firm.

### 2.2.4 Van Horne and McDonald's Study

Van Home and McDonald, (1972) concluded a comprehensive study of 86 electric utility firms and 39 electronics and electric component industries by using cross sectional regression model in 1968 to know the combined effect of dividend policy and new equity financing decision on the market value of the firm's common stock. They employed two-regression model for electric utilities and one regression mode! for electronics component industry.

First model was

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

Where,

$P_o/E_o$ = Closing market price in 1968 dividend 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.

Do/Eo = Dividend payout, measured by cash dividend in 1968 dividend by earnings in 1968.

lev = Financial Risk, measured by interest charges divided by the difference of operating revenues and operating expenses.

U = Error term.

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

Where, $F_a$, $F_b$, $F_e$, $F_d$ are dummy variables corresponding to "new issue ratio" (NIR) sups 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 presenting its NIR group is one and the value of remaining dummy variables is zero.

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

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

Where,

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

From their study they concluded that The market price of share was not affected by new equity financing in presence of cash dividend except for these in the highest new issue group and it made new equity more costly from of financing than retention of earning, They also indicated that the payment of dividend through excessive equity financing reduces the market price of share.

### 2.2.5 Friend and Puckett's Study:

Friend and Puckett (1964) conducted a study and the relationship between dividends and stock prices, by running regression analysis on the data of 110 firms from five industries in the year 1956 and 1958. These five industries were chemicals, electronics, electric utilities, 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 that 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 earnings ratio as independent variables in their regression model of price function. They used supply function i.e. dividend function as well. In their dividend function, earnings, last year's dividend and price earnings ratio are independent variables. They quoted that the dividends and price earnings ratio are independent variables. They quoted that the dividend supply function (equation) was developed by adding to the best types of relationship developed by Linter. Symbolically, their price function and dividend supply function are:

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

Where, $P_t$ = Share price at the time ‘t’

$D_t$ = Dividends at the time 't'

Rt = Retained earnings at time 't'

$(E/P)_{t-1}$ = Legged earning price ratio

Dividend Supply Function: $D_t = e + fE_1 + gD_{t-1} + h(E/P)_{t-1}$

Where,

$E_t$ = Earning per share at time 't'

$D_{t-1}$ = Last year dividend

Their study was based on the following assumptions:

- Dividends do react to year to year fluctuation in earnings.
- Price doesn't contain speculative components.

- Earnings fluctuations may not sum zero over the sample.

Their regression results based on the equation: $P_t = a + bD_t + cR_t$ showed the company's strong dividend and relatively weak retained earnings effects in three of the industries; i.e., chemical, foods and steels. Again they tested other regression equation by adding lagged earning price ratio to the above equation and resulted the following equation $D_t = e + fE_1 + gD_{t-1} + h(E/P)_{t-1}$; they found that more than 80% of the variation in stock price could be explained by three independent variables. Dividends have predominant influence on stock price in the same three out of five business industries but they found difference between the dividends and retained earning coefficient are not quite so marked as in the first set of regression. 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; $D_t = e + fE_1 + gD_{t-1} + h(E/P)_{t-1}$ and the dividend 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 earning 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 effects on dividend are probably not serious of bias in the customer derivation of dividend and retained earnings effects on stock prices. Though, such a bias might be market if the disturbing effects of short run income movements are sufficiently great.

Further, they used lagged price as a variable instead of lagged earnings price ratio and showed that more than 90% of variation in stock prices 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 exceptions were steels and foods in 1958. They considered chemicals, electronics and utilities as growth industries in their groups and the retained earnings effect was larger than the dividend effect for both years covered. For the other two industries, namely foods and steels, there were no

significant systematic differences between the retained earnings and dividend coefficients.

Similarly, they tested the regression equation; $P_t = a + bD_t + cR_t$ by using .normalized earnings again. They obtained normalized retained earnings by subtracting dividends form normalized earnings. That normalized procedure was based on the period 1950 to 1961. Again, they added prior year's normalized earning price variable and they compared the result. Comparing the result they found that there was significant role of normalized earnings. When they examined the later equation they found that the difference between dividend and retained earning coefficient disappeared. Finally they concluded that management might be able to increase price somewhat by raising dividends in foods and steels industries.

They concluded more detailed examination of chemical samples. That examination disclosed that the result 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 determinant.

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

### 2.2.6 H. K. Baker, G.E. Farrelly and Richard B. Edelman's Study

H. K. Baker. G.E. Farrelly and Richard B. Edelman (1985) surveyed management view on dividend policy. They asked cooperative financial managers what they considered most important in determining their firm's dividend policy. The objectives of their survey were as follows:

- To compare the determinants of dividend policy today with Linter's behavioral model of corporate dividend policy and to assess management's agreement with Linter's findings.
- To examine management's perception of signaling and clienteles effect and
- To determine whether managers in different industries share-similar views about the determinants of dividend policy.

The firms they surveyed were listed, on the New York Stock Exchange and classified four digit standard industrial classification codes. Total of 562 NYSE firms were selected from three industrial groups. Utility (150),Manufacturing (309) and wholesale/retail (103).

They mailed questionnaire to obtain information about corporate dividend policy. The questionnaire consisted of three parts (i) 15 close ended statements about the importance of various factors that each firm used in determining its dividend policy, (ii) 18closed ended statement about theoretical issues involving corporate dividend policy, and (iii) a respondent's profile including such items as the firm's dividends and earnings per share.

They send the final survey instrument to the chief financial officer of 562 firms, followed by a second complete mailing to improve the response rate and reduce potential non-response bias. Their survey yielded 318 usable responses (i.e. 56.6%), which were divided among the three industry groups as follows: 114 utilities (76%), 147 manufacturing firms (47.6%), and 57 wholesale and retail (5.3%). Based on dividend and earnings per share data provided by the respondents, the average dividend payout ratios were computed. They found that payout ratio of the responding utilities (70.3%) were considerably higher than for manufacturing (36.6%) and wholesale/retail (36.1%).

The results of their survey on the aspect of determinants of dividend policy were as follows.

- The first highly ranked determinants are the anticipated level of firm's future earnings and the second factor is the pattern of the past dividends. They found the high ranking of these two factors is consistent with Linter's findings.
- A third factor cited as important in determining dividend policy is the availability of cash.
- A fourth determinant is concerned about maintaining or increasing stock price. They found this factor is particularly strong among utilities who ranked this second in importance.

Similarly, the results of their survey on the aspect of attitudes of theoretical issues were as follows:

- Respondents from all there-industry groups agreed relatively strongly that dividend payout affects common stock prices.
- The respondents from all three industry groups agreed, on average, that dividend payouts provide a signaling device of future company prospects and that the market used dividend announcements as information for assessing security value.
- The respondents also demonstrated a high level of agreement that the reason for dividend policy changes should be adequately disclosed to investors.
- Respondents from all three-industry groups thought that investors have different perceptions of the relative riskiness of dividends and retained earnings and hence are not indifferent between dividend and capital gain returns.

### 2.3 Review of Research Works in Nepalese Perspective

Since Nepalese capital market is small, and at emerging stage, there are very few studies regarding corporate dividend policy and its impact on share prices. Here is a review of research work in Nepalese perspective.

#### 2.3.1 Shrestha's Study

There are very few articles published related to dividend in Nepal. The article by Dr. M. K. Shrestha (1980) about the dividend performance of some public enterprises highlighted the following issues:

- HMG expects two things from public enterprises: (i) They should be in a positive to pay minimum dividend and (ii) Public enterprises should be self supporting in financial matters in future years to come but none of these two objectives are achieved by public enterprises.
- The article points the irony about government biasness that government has not allowed banks to follow independent dividend policy and HMG is found to pressurize dividend payment in case of Nepal Bank Ltd. Regardless of profit. But it has allowed Rastriya Banijya Bank to be relieved obligation in spite of considerable profit.

### 2.3.2 Shrestha's study

We can find very few articles related to dividend policy that is being published in Nepalese context. Dr. Manohar Krishna Shrestha (1981) writes one of those related to dividend published. In 1981, the study presented by him was: " Public Enterprises: have they Dividend Paying Ability?"

Dr. Shrestha has highlighted following issue in the articles:

- The expectation of HMG from the public enterprises are of two things: (1) They should be in a positive of paying minimum dividend (2) Public enterprises should be self-supporting in financial matters in future years to come, but non of these two objectives are achieved by public enterprises.
- One reason for excessive government causes this inefficiency interferes in day to day affairs. On the other hand, high-ranking officials of HMG appointed as Directors of Board do nothing but simple show their bureaucratic personalities Bureaucracy has been the enemy of efficiency and so led corporation to face losses.

Another reason is the lack of self-criticism and self-consciousness. Esman has pointed out that the lack of favorable leadership is one biggest constraint to institutional building. Moreover corporate leadership comes, as managers are not ready to have self-criticism.

### 2.3.3 S. Pradhan's Study

The study on stock market behavior in a small capital market is a popular case study by Radhe S. Pradhan. Pradhan's Study (1993) was based on the data collected from 17 enterprises from 1986 through 1990. The objectives of the study are:

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

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

- Higher earning on stock leads (lie larger of DPS.
- Stock with larger ratio of dividend per share to market price have lower leverage ratio.
- Positive relationship between the ratios of DPS to market price and interest

coverage.

- Positive relationship between dividend payout and turnover ratios.
- Positive relationship between dividend payout and liquidity.
- Positive relationship between dividend payout and profitability.
- DPS and MFS are positively correlated,
- Liquidity and leverage ratios are more variable for the stock paying lower dividends.
- Earnings, assets turnover, and interest coverage are more variable for the stock paying higher dividends.

### 2.3.4 Bhattarai's Study

In his dissertation paper “Dividend Decision and its Impact on Stock Valuation”, (1996). Bishnu Bhattarai , concludes that:

- There is positive relationship between cash flow and current profit and divided percentage of shares. The degree of relationship is almost perfect.
- There is no criterion to adopt payout ratio and it is observed that there is a negative relationship between payout ratio and valuation of shares.
- In aggregate, there is no stable dividend paid by the companies over the years. Some companies have steadily increased dividend. Such increase in dividend has a considerable impact on valuation of shares if there are rational investors; however this is yet to be realized by Nepalese company management.
- Inflation rate in recent year are decreasing and the market price of share are increasing. Nevertheless, the companies are not able .to give required rate of return to the investors.
- There was negative relationship between price of share and stockholders required rate of return. Shareholders have foregone opportunity income in hope of getting higher return, but companies have not been able to return even equal to risk free rate of return.

### 2.3.5 Timilsina's Study

Sadakar Timilsina, (1997) in his thesis paper “Dividend and Stock Price: An Stock Price: An Empirical Study” has studied the relationship between dividend and stock price of the sample companies by using data from 1990 to 1994. Though it was not

very comprehensive, it was the first of its kind and able through some light in the Nepalese context.

The objectives of this study were as follows:

- To test the relationship between dividend per share and stock price.
- To determine the impact of dividend policy on stock price.
- To identify whether it is possible to increase the market value of stock by changing dividend policy or payout ratio.
- To explain the price behaviour, the study used simultaneous equation models developed by Friend and Puckett (1964).

The findings of his study were as follows;

- The relationship between dividend per share and stock price is positive in the sample companies.
- Dividend per share affects the share price differently in different sectors.
- Changing 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 lagged earning price ratio is negative.

### 2.3.6 Manandhar's Study

Another article published by K.D. Manandhar (2000) describes about the relationship of dividend payout other financial factors based on the data of 7 commercial banks, 5 finance and insurance companies, 2 trading companies, 2 service oriented companies and 1 manufacturing company for the year 1987 to 1998.

Following are the major findings of his study:

- Significance relationship is found between change in dividend policy in terms of dividend per share and change in lagged earnings.
- There is relationship between distributed lagged profit and dividend.
- The difference is found significant between overall proportion of change dividend and due to increase and decrease in EPS during the study period.
- In overall increase in EPS has resulted to increase in the dividend payment in

66.6% of the cases while decrease in EPS is resulted decrease in dividend payments come to 33.3% of the cases.

- It is found that Nepalese Corporate firms have followed the practice of maintaining constant dividend payment per share or increase it irrespective of change in EPS as reflected by total percentage of constant and increase dividend payout of 78.33% of the cases. In other words forms are reluctant to decrease dividend payment.
- In overall Nepalese corporate firms are found reluctant to decrease dividend either keeping dividend payment constant or higher to take the advantages of information contents and signaling effects of dividend relating to the firm's continued progress and, performance, sound financial strength, favorable investment environment, lower risk, ability to maintain sustained dividend rate and finally to increase the market price of the stocks in the stock market.

### 2.3.7 Gautam's Study

A comparative study of dividend policy in commercial banks conducted by Mr. Rishi Raj Gautam (2000) was carried out by using the secondary data of three commercial banks in 1998. The objectives of the study are as follows:

- To identify what type of dividend policy is being followed and find out whether the policy followed is appropriate or not.
- To examine the impact of dividend on share price.
- To identify the relationship between DPS and other financial indicators.
- To know if there is any uniformity among DPS, EPS and DPR of the three sample commercial banks.

Major findings of the study are as follows:

- Average EPS and DPS of all commercial banks are satisfactory.
- Analysis indicates that there is large fluctuation in EPS and DPS, on the other hand, there is relatively more consistency dividend per share in all the sample banks.
- No commercial bank seems to be guided by cleanly defined dividend strategy in spite of the good earnings and potentials.
- Shares of the financial institution are actively traded .and market prices are

increasing.

- Commercial banks represent a robust body of profit earning organization in comparison to the other sectors such as manufacturing, trading etc.
- One of the most striking findings of the study is that no commercial bank sample for this study has clearly defined dividend strategy. On the other hand, there is significant relationship perceives between earnings and dividend of expansion program.

### 2.3.8 Adhikari's Study

A research on "Corporate Dividend Practice in Nepal" carried out by Naba Raj Adhikari (2000) using primary as well as secondary data.

The objectives of the study are:

- To analyze the properties of portfolio? formed on dividend.
- To examine the relationship between dividend and stock prices.
- To survey the opinions of financial executives on corporate dividend practices.

Major findings, of the study are as follows:

- There are differences in financial position of high dividend paying and low dividend paying companies.
- The stocks with larger ratio of dividend per share to book value per share have higher liquidity. It is also more variable as compared to stock paying lower dividends. Other thing remaining the same, financial position of high dividend paying companies is comparatively better than that of low dividend paying companies.
- Another interesting conclusion is that market price of stock is affected by dividend for finance and non-finance sectors differently.
- There is positive relationship between dividend and stock price.
- There is negative relationship between dividend payout and earning before tax to net worth. .
- Stocks with larger ratio of DPS to book value per share have higher profitability. These profitability ratios of stocks paying larger dividends are also more variable as compared to stocks paying smaller dividends.
- The companies paying higher dividend are reluctant to employ higher degree of leverage is their capital structures,

- The stocks with larger ratio of dividend per share to book value per share have also higher turnover ratio and higher interest coverage.

Some findings through primary data:

- With respect to factors affecting corporate dividend policy, the majority of the respondents give the first priority to earning, the second to availability of cash the third to past dividend and fourth to concern about maintaining or increasing stock price.
- Dividend payout affects the price of common stock.
- As regards as a residual decision, the majority of the respondents feel that it is not a real residual decision.
- With respect to major motives for paying cash dividend, the majority of the respondents feel that it is to covey information to shareholders that the company is doing good.
- • Nepalese shareholders are not really indifferent towards payout or non payment of dividend. :
- One of the major finding is that earning announcement helps to increase the market price of the share.

### 2.3.9 Khatiwada's Study

A Study on “Impact of Dividend and Earnings announcement on shareholders return and Stock Prices in Nepal” by Narayan Prasad Khatiwada in (May 2001) through data collected from 053/54 to 055/56 for six joint venture banks.

The objectives of the study were as follows:

- To analyze the impact of earning and dividend announcement on shareholders return.
- To see the correlation between the return of the individual securities with market return.
- To identify the quality of systematic risk and unsystematic risk.

The major findings were:

- Announcement of dividend and earnings did not affect the shareholders return in average.
- Other banks except Nepal SBI Bank Ltd. having different dividend rates did

not provide abnormal return to the shareholders.

- Shareholder realized positive abnormal return from NB, SBI and Grindlays.

### 2.3.10 Basnet's Study

Pooja Basnet (2004) in her master's degree thesis on "Dividend Policy of Listed Companies in Nepal", has analyzed and examined the relationship between dividends and stock price of Banking and other financial sectors.

The objectives of this study were as follows.

- To highlight the prevailing dividend policy adopted by the listed
- Companies.
- To assess the impact of dividend on market price of share of the selected companies.
- To analyze the relationship between dividend with earning per share, net profit and net worth.

Analysis of the result of the sample companies helped her to draw following conclusion:

- Dividend payment is not a regular and attractive phenomenon in Nepalese listed companies. The companies do not have any stable and consistent dividend practice.
- The market price' of share of banking and total companies is influenced by many factors oilier than DPS. Change in dividend per share affects the share price differently in different companies.
- The DPS and EPS are positively correlated in all sectors. Which means higher the EPS, higher will be the DPS.
- Market Value per Share (MVPS) of the listed companies is higher than net worth per share (NWPS). There exist vast difference between MP and NWPS. This situation clearly indicates that the investors are not matching book value and market value of the share. They don't see the reported value of share from its books of account.

### 2.3.11 Rijal's Study

A research on "Impact of Dividend Policy on Market Price of Shares" carried out by Shraddha Rijal (2004) using primary as well as secondary data. The objectives of the study are:

- To compare dividend policy of the selected banks.
- To analyze the dividend policy and impacts on share price changes.
- To access the relationship between the dividends with earnings, market price of share with earning per share.

The conclusion of her study is:

- The primary objectives of investors investing in stocks are to earn dividend. But the earning of shareholders can be dividend as dividend gain and capital gain. High payout satisfies the dividend need whereas increase in market price of stock increases capital gain. Therefore, the firms make a proper balance between dividend distribution and retention of EPS.
- In Nepal, only a few listed companies have been paying regular dividends 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 commercial banks are also no exception.
- This study rests to conclude that the cash dividend can't be said as a sole factor to affect price of share. But there are some other factors like earning power, bonus share, information value of dividend decision etc. that also cause the share price fluctuation. In an imperfect market mechanism like Nepalese Share Market, the security brokers, other market makers and the rumors they spread in the market have also significant role in share price fluctuation.

Though there were above mentioned studies are related to dividend behavior in Nepalese context. It has now become necessary to find out whether their findings are still valid or not. In Nepalese context, many more changes have taken place in last few years. So, it is necessary to carry out a fresh study related to dividend pattern of Nepalese companies. In this study, it is tried to carry out by using the latest data for different companies for analyzing the dividend policies of Nepalese companies.

### 2.3.12 Bista's Study

Surendra Bista (2006) presented his dissertation "Dividend Policy and Practices in Nepal". A comparative study of listed joint ventures commercial banks and manufacturing companies. Through data collected from 1999 to 2005 with three joint venture banks out of the three manufacturing companies in 2006.

The major objectives of the study were:

- To examine the relationship between dividend and market price of the stock.
- To identify the appropriate dividend policy followed by the banks and manufacturing companies.
- To analyze the relationship between dividend policy decision of bank and manufacturing companies.

Major Findings are follows:

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

### 2.3.13 Adhakari's Study

Navaraj Adhikari (2007) corporate dividend practices in Nepal". using primary as well as secondary data.

The objectives of the study are:

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

Major findings of the study are as follows:

- There are differences in financial position of high dividend paying and low dividend paying companies.
- The stocks with longer ratio of dividend per share to book value per share have higher liquidity. It has more variable as compared to stock paying lower dividends. Other thing remaining the same, other thing remaining the same, financial position of high dividend paying companies are comparatively better than that of low dividend paying companies.
- Another interesting conclusion is that market price of stock is affected by dividend for finance and non finance sectors differently.
- There is positive relationship between dividend and stock price.

- There is negative relationship between dividend payout and earnings before tan to net worth.
- Stocks with larger ratio of DPS to book value per share have higher profit ability. These profitability ratios of stocks paying large dividends are also some variable as compared to stocks paying smaller dividends.
- The companies paying higher dividend are reluctant to employ high degree of leverage is their capital structures.
- The stocks with larger ratio of dividend per share to book value per share have also higher turnover ratio and higher interest coverage.

Some findings through primary data:

- With respect to factors affecting corporate dividend policy, the majority of the respondents give the first priority to "earnings", the second to availability of cash and the third to past dividend and fourth to concern about maintaining or increasing stock price.
- Dividend payout affects the price of common stock.
- As regards dividend as a residual decision, the majority of the respondents feel that it is not a real residual decision.
- With respect to major motives for paying cash dividend, the majority of the respondent feels that it is to convey information to shareholders that the company is doing good.
- Nepalese shareholders are not really indifferent towards payout or nonpayment of dividend.
- One of the major findings is that earning announcement helps to increase the market price of share.

### 2.3.14 Jha' study

Pawan Kumar Jha (2007) has performed a thesis on "Study on Dividend policy A comparative study between banks, insurance companies and financial institution, with eight years data relating to dividend policy from 2053/54 to 2061/62.

His main objectives of the work are as follows.

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

Major findings to the study are:

1. Nepalese government NRB, SEBON, NEPSE should be conscious to discourage market imperfection.
2. Companies should have long term policy regarding the adoption of suitable dividend policy.
3. Even if not earning has been increasing, the dividend per share has widely fluctuated. Distribution of bonus share should be pre-evaluated.
4. There needs a proper information discloser to the investor.

**Bhattarai's Study**

Shankar Bhattarai (2008) presented his dissertation "Dividend Policy and Practices in Nepal". A comparative study of listed joint ventures commercial banks and manufacturing companies. Through data collected from 1999 to 2005 with three joint venture banks out of the three manufacturing companies in 2006.

The major objectives of the study were:

- To examine the relationship between dividend and market price of the stock.
- To identify the appropriate dividend policy followed by the banks and manufacturing companies.
- To analyze the relationship between dividend policy decision of bank and manufacturing companies.

**Major Findings are follows:**

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

**Gautam Study**

R.R Gautam (2009) analysis the factors using various statistical and financial tools and concludes that:

- Average earning per share of both two banks is satisfactory and dividend per share is too much unsatisfactory.
- There is no consistency in dividend payment and its growth rate is not static as well.
- There is no prominent difference in DPS and D/P rate of both two banks however; there is no uniformity in EPS.

R.R Gautam recommends as follows:

- To follow clearly defined dividend strategy as lack of it causes serious in convenience to may other sectors of finance.
- Banks should consider the interest and expecatation of the investors while making dividend decisions.

**2.4 Research Gap**

The purpose of this study is to draw some ideas concerning to the dividend policy and to see what new contribution can be made and to receive some ideas, knowledge and suggestions in relation. In this context, the previous studies can't be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. It is clear that the reference of new research can't be found on the exact topics, i.e. "Dividend policy of Nepalese Commercial Banks (A comparative study)" therefore to complete this research work, many books, journals articles and various published and unpublished dissertations and field opinion are followed as guideline to make the research easier and smooth through these reference materials. The researcher can find out the gaping from the past research that has to be fulfilled by the present research work.

This is a new topic for the research work. It is expected that the uncovered areas of this research work will be studied. The gapping between old and new research work will be focused and filled up based on the given objectives and limitation in this research.

# CHAPTER III
# RESEARCH METHODOLOGY

## 3.1 Concept

Research Methodology describes the methods and process applied in the entire aspect of the study. In. other words research methodology is a systematic way to solve the research problem. Research methodology refers to the various sequential steps to be adopted by researcher in studying a problem with certain view. A focus is given to research design, sample selection and size, data collection, data processing, definition of variables, meaning and definition of statistical tools used.

As a result these study and analysis has become a major tool to comfort the researcher to come to the choice of research methodology. This is useful to reflect the dividend policy and its impact on the share price.

In this chapter efforts have been made to present and explain the specific research design for the sake of attaining the research objectives.

## 3.2 Research Design

A research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern of framework, of the project that stipulates what information is to be collected, from which sources, by what procedures.

The research design of this study is analytical as well as descriptive. This study is an examination and evaluation of dividend policy and its impact on the market price of shares of various financial institutions like banks, finance companies and manufacturing companies. Therefore the study is closely related with the various financial statements as well as the market price of the stock. Analytical method is used to present the information and data.

The data required for the clarity of the concept and fulfill the study objectives are collected mostly from selected company's annual reports and NEPSE. The standard information and modem concept is view through the journals, articles, and book-let.

The information so collected is analyzed using various standard and statistical measures. The statistical calculation will help to see if or not there is trend on the activities.

There arise various tools for operating and summarizing the information. The major tool to analyze data is selected to comply with the nature of data and meet the Nepalese investor's need. The tools and technique, which is suitable elsewhere, may not be appropriate in our context.

The information presented is represented with tables, charts and graphs. The tables, charts and graphs will be helpful to notice the information at glance and also assist to predict the future level.

The data after presentation is interpreted so as to best suit the interest of the reader or to provide the theoretical insight about the data behavior.

### 3.2.1 Population and Sample

AS this study is based on the data of the companies listed in NEPSE, the population is taken from only those companies which are listed, no. of listed company in NEPSE are 150. Since the topic implies the study should be done among the dividend paying and actively traded companies, the sampling are done accordingly. The study covers altogether six companies consisting two from commercial banking sector, two from finance companies and the rest two from manufacturing companies. The sampling method used is stratified sampling method.

The samples selected are as follows:
From Banking Sector:
1. Standard Charted Bank Nepal Ltd. (SCBL)
2. Nepal Arab Bank Ltd. (NABIL)

From Finance Companies:
3. Annapurna Finance Company Ltd. (AFC)
4. Kathmandu Finance Limited (KFC)

**From Manufacturing Sector:**

5. Uniliver Nepal Private Ltd. (UNL)

6. Bottlers Nepal Private Ltd. (BNL)

### 3.2.2 Selection criteria

- Being the top bank.
- Being the top finance of Kathmandu.
- Being multinational company.

## 3.3 Sources of Data Collection

The data used in this study are from two sources, primary and secondary. However the prime focus has been given to the secondary data. The secondary data collected from, annual reports from Fiscal year 2060/061 to 2064/2065, magazines and bulletins of the companies under study, relevant information and data from the publication of SEBON, NEPSE, NRB, and web pages of the selected companies, various newspapers, previous studies, thesis and dissertation related to this field etc. Beside that the indirect and informal talks, interviews with some professors, teachers and persons of related field etc. have also been made. (www.nepalstar.com.np/www.bottlersnepal.com.np/www.annapurnafc.com/np/www. ktmfinance.com.np

## 3.4 Analysis of Data

The analysis of data has been done according to the pattern of data available. Wide varieties of methodology have been applied according to the reliability and consistency of data. Firstly, the collected data are presented in proper forms, grouped in various tables and charts according to their nature. Then various financial and statistical tools have been applied. And then interpretations and explanations are made wherever necessary with the help of various statistical analysis.

### 3.4.1 Tools of Analysis

Various financial and statistical tools have been used in the study. The analysis of data will be done according to the pattern of data. Financial tools and simple regression analysis, multiple regression analysis and Hypothetical test will mainly be the tools, of analysis. The relationship between different variable related to study topic would be drawn out using financial and statistical tools. The main, financial

indicator EPS, DPS, MPS, P/E Ratio, Dividend Yield. Earning Yield and D/P ratio will be calculated in this research, likewise statistical tools arithmetic mean, simple regression analysis, standard deviation, coefficient of correlation and hypothetical test will be calculated in the research.

### 3.4.1.1 Financial Tools:

A brief explanation of financial tools used in this study is as follows:

**Earning Per Share (EPS)**

Earning per share is one of the factors that affect the dividend policy and stock price of a firm. EPS calculation will be helpful to know whether the firm's earning power on per share basis. If EPS is greater the dividend will be larger and so is the market price. So, it is assumes as independent variable to determine the dividend and market price of stock. It is calculated by dividing the earning available to the common shareholder by the total number of common shares outstanding.

Symbolically,

$$\text{EPS} = \frac{\text{Earning Available to Common Shareholders}}{\text{No. of Common Stock Outstanding}}$$

**Dividend per Share (DPS)**

The earning distributed to the shareholders out of EPS is known as DPS. It also affects the market price of stock. If EPS is greater, DPS will be greater. It is calculated by dividing total dividend to equity shareholders by the total number of the equity shares.

Symbolically,

$$\text{DPS} = \frac{\text{Total Dividend to ordinary shareholders}}{\text{No. of Common Stock Outstanding}}$$

**Dividend Payout Ratio (DPR)**

DPR reflect what percentage of profit is distributed as dividend and what percentage is retained ns reserve and surplus for the growth of the company. It is calculated by dividing the DPS by the EPS.

Symbolically,

$$DPR = \frac{\text{Dividend Per Share(DPS)}}{\text{Earning Per Share (EPS)}}$$

**Earning Yield Ratio (EYR)**

This ratio shows the relationship between earning per share and market value per share. it is calculated by earning per share by market value per share.

Symbolically,

$$EYR = \frac{\text{Earning Per Share(EPS)}}{\text{Market Price Per Share (MPS)}}$$

**Dividend Yield Ratio (DYR)**

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

Symbolically,

$$DYR = \frac{\text{Dividend Per Share(DPS)}}{\text{Market Price Per Share (MPS)}}$$

**Price Earnings Ratio (P/E Ratio)**

This ratio reflects the market value per share for each rupee of currently reported EPS. It is calculated by dividing the market value per share by earning per share.

Symbolically,

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

**3.4.1.2 Statistical Tools :**

A brief explanation of statistical tools used in this study is as follows:

**Arithmetic Mean ( $\overline{X}$ )**

The most popular and widely used measure of representing the entire data by one variable is the arithmetic mean. The arithmetic mean is the sum of total values to the number of observations in the sample. It represents the entire data which lies almost

between the two extremes. For this reason an average is frequently referred to as a measure of central tendency.

Symbolically,

$$\text{Mean } (\overline{X}) = \frac{\text{Sum of the total Values } (\Sigma X)}{\text{No. of Values}(N)}$$

**Standard Deviation (σ)**

The measurement of scatter ness of the data of figure in a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. The greater amount of dispersion reflects the high standard deviation. A small standard deviation means a high degree of uniformity of observation as well as homogeneity of a series and vice-versa.

Symbolically,

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

**Coefficient of Variation (CV)**

The coefficient of variation is defined as the ratio of standard deviation to the mean expressed in percentage.

Symbolically,

$$CV = \frac{\sigma}{\overline{X}} \times 100\ \%$$

The coefficient of variation is the relative measure and is independent of units. The coefficient of variation is applicable for the comparisons of variability of two or more distributions. The greater the value of the coefficient of variation, the less will be the uniformity (or consistency, stability, etc.) and the smaller the value of coefficient of variation, the more will be the uniformity (or less will be the variability).

**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. In the study both single and multiple correlations have been used. Correlation co-efficient between the following financial variables have been calculated and interpreted.

**Simple correlation coefficient**

- Between dividend per share and earnings per share
- Between earning per share of last year and current market price per share.
- Between dividend per share of last year and current market price per share.

**Multiple Correlation Coefficients**

Between earning per share of last year, dividend per share of last year and current market price of share.

**Probable Error [PE]**

Tin; probable error of the coefficient of correlation helps in interpreting its value. It helps to determine the reliability of the value of coefficient. To cross check the validity of the result, we can take the help of following formula.

Symbolically:

$$PE(r) = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

Where,

PE(r) = Probable Error of' 'r'

r = Correlation coefficient between x and y

There are three condition to know the degree of correlation between x and y.

1. if the value of 'r' is less than 6 times the probable error
   [ie, r< 6xPE(r)j, there is no significant relationship between x and y.
2. if the value of 'r' is more than 6 times the probable error
   [ ie, r> 6xPE(r)j, there is most significant relationship between x and y.
3. if PE(r) < r < 6 PE (r), there is moderate relation between x and y.

In the study, probable error has been calculated to determine the reliability of the value of coefficient of EPS and DPS, DPS and Net Profit and DPS and Net Worth.

**Regression Analysis**

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

**Simple Regression Analysis**

**Dividend per Share on Earning per share**

This analysis enables us to know whether EPS is the influencing factor of dividend per share or not. At what extent EPS affects the DPS

$$Y = a + bx$$

Where, y = Dividend per share
a = regression constant
b = regression coefficient
x = Earning per share

**Market Price per Share and Dividend per Share of Last Year**

This analysis tests the dependency of market price on dividend per share of last year,

$$y = a + bx$$

Where, y = Market Price per Share
a = regression constant
b = regression coefficient
x = Dividend per share of last year

**Market Price per Share and Earning per Share of Last Year**

This analysis tests the dependency of market price on earning per share of last year.

$$y = a + bx$$

Where, y = Market Price per Share
a = regression constant

b = regression coefficient

x = Earning per share last year

**Multiple Regression Analysis**

Market price of share on earning per share of last year and dividend per share of last year.

$Y = a + b_1X_1 + b_2X_2$

Where, y = Market Price per Share

a = regression constant

$b_1$ = regression coefficient of 1st variable

$b_2$ = regression coefficient 2nd variable

$X_1$ = Earning per share of last year

$X_2$ = Dividend per share of last year

This model helps to predict in what extent EPS and DPS affect market price of share.

In Correlation and regression analysis, following statistics have been calculated and interpreted accordingly.

**1. Coefficient of Correlation(r)**

Correlation Analysis is the statistical tools that we can use to describe the degree to which one variable is linearly related to another. (Levin, et. Al. 1997:613). Coefficient of correlation is the measurement of the degree of relationship between two casually related sets of figures whether positive or negative. Its value lies somewhere ranging between -1 to +1, if both variables are constantly changing in the similar direction, the value of coefficient will be +1 indicative of perfectly positive correlation, when the coefficient will be -1 two variables take place in opposite direction. The correlation is said to be perfectly negative. In this study, simple coefficient of correlation is used to examine the relationship of different factors with dividend and other variables. The data regarding dividend over different years are tabulated and their relationship with each other are drawn out.

**2. Coefficient of Determination ($r^2$)**

The coefficient of determination is the primary way we can measure the extent, or strength, of the association that exists between two variables. In other word, it is measure of degree of linear association or correlation between two variables, one of

which happen to be independent and other being dependent variable. It measures the percentage total variation in dependent variable explained by independent variables. The coefficient of determination value can have ranging from 0 to +1. If the regression line is perfect estimator $r^2 = +1$. Thus the value of $r^2 = 0$ when there is no correlation. In this study, coefficient of determination is calculated to know the degree of correlation of dividend per share with earning per share and market price per share with earning per share.

**3. Regression Constant (a)**

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

**4. Regression Coefficient (b)**

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

**5. Standard Error of Estimate (SEE)**

With the help of regression equations perfect prediction is practically impossible. The standard error of the estimate measures the accuracy of the estimated figures. It also measures the dispersion about an average line. If standard error of estimate is zero, then the estimating equation to be 'perfect' estimator of the dependent variable. It indicates that the smaller value of SE estimate the closer will be the dots to the regression line. Thus, with the help of standard error of estimate, it is possible for us to ascertain how good and representative the regression time is as a description of the average relationship between two series. In this research work, standard error of estimate is calculated for the selected dependent and independent variables specified on the model.

### 3.4.2. Test of Hypothesis

A Hypothesis is a conjectural statement of the relationship between two or more variables (Kerlinger : 1964). Hypothesis Statement Should be able to show the relationship between variables. At the same time, they should carry clear implication for testing the stated relations. The research on this thesis topic strongly holds that the hypothesis formulated, meet the above mentioned criteria. The hypothesis of this study is as follows:

**t-statistic**

To test the validity of assumption if sample size is less than 30 t-test is used. For applying t-test in the context of small sample, the t-value is calculated at first and compared with the table value of 't' at a certain level of significance for given degree of freedom. If calculated t-value exceeds the table value (say 0.05) we infer that the difference is significant at 5 percent level. But if t-value is less that that of table value the difference is not treated as significant. In this research work, t-value is calculated between earning per share and dividend per share, net profit and dividend per share and market price per share.

**1. First Hypothesis**

Null Hypothesis (Ho):

i. There is no significant difference between mean DPS of NABIL and SCBL

ii. There is no significant difference between mean DPR of NABIL and SCBL

$$\mu = \mu_2$$

Alternative Hypothesis ($H_1$):

i. There is significant difference between mean DPS of NABIL and SCBL.

ii. There is significant difference between mean DPR of NABIL and SCBL

$$\mu \neq \mu_2$$

**2. Second Hypothesis**

Null Hypothesis (Ho):

i. There is no significant difference between mean DPS of AFC and KFC

ii. There is no significant difference between mean DPR of AFC and KFC

$$\mu = \mu_2$$

Alternative Hypothesis ($H_1$):

i. There is significant difference between mean DPS of AFC and KFC

ii. There is significant difference between mean DPR of AFC and KFC

$$\mu \neq \mu_2$$

**3. Third Hypothesis**

Null Hypothesis (Ho):

i. There is no significant difference between mean DPS of UNL and BNL.

ii. There is no significant difference between mean DPR of UNL and BNL.

$$\mu = \mu_2$$

**Alternative Hypothesis ($H_1$):**

i. There is significant difference between mean DPS of UNL and BNL.

ii. There is significant difference between mean DPR of UNL and BNL.

$$\mu \neq \mu_2$$

**Analysis of Variance (ANOVA)**

In order to test whether all the means of different sectors have same common mean or not, analysis of variance is carried out. With this test one can make a inference whether the difference between the sample means is merely due to sample fluctuation or they are significantly different. The technique used in analysis of variance which compares among-sector variance & to the within sector variance is F-ratio.

$$F = \frac{\text{Mean Sums of Squares between Sectors/d.f.}}{\text{Mean Sums of Error/d.f.}}$$

**1. First Hypothesis**

Null Hypothesis;

Ho: There is no significant difference among the DPS of Banking Sector, Manufacturing Sector and Finance Sector.

i.e. $H_o$: $\mu_1 = \mu_2 = \mu_3$

Alternative Hypothesis:

Ho: There is significant difference among the DPS of Banking Sector, Manufacturing Sector and Finance Sector.

i.e. $H_1$: $\mu_1 \neq \mu_2 \neq \mu_3$

2. Second Hypothesis

Null Hypothesis:

Ho; There is no significant difference among the EPS of Banking Sector, Manufacturing Sector and Finance Sector.

i.e. $H_o$: $\mu_1 = \mu_2 = \mu_3$

Alternative Hypothesis:

Ho: There is significant difference among the BPS of Banking Sector, Manufacturing sector and Finance Sector.

i.e. $H_1$: $\mu_1 \neq \mu_2 \neq \mu_3$

3. Third Hypothesis

Null Hypothesis (Ho):

i. There is no significant difference among the DPR of Banking Sector, Manufacturing Sector and Finance Sector.

i.e. $H_o$: $\mu_1 = \mu_2 = \mu_3$

ii. Alternative Hypothesis(Ho):

There is significant difference among the DPR of Banking Sector, Manufacturing Sector and Finance Sector.

i.e. $H_1$: $\mu_1 \neq \mu_2 \neq \mu_3$

4. Forth Hypothesis

Null Hypothesis(Ho):

i. There is no significant difference among the MPS of Banking Sector, Manufarcturing and Finance Sector.

i.e. $H_o$: $\mu_1 = \mu_2 = \mu_3$

Alternative Hypothesis: (H1):

ii. There is significant difference among the MPS of Banking Sector, Manufacturing Sector and Finance Sector.

i.e. $H_1$: $\mu_1 \neq \mu_2 \neq \mu_3$

# CHAPTER IV
# DATA PRESENTATION AND ANALYSIS

In this chapter, the relevant data and information on dividend policy of the selected companies are presented and analyzed comparatively keeping the objective of the study in mind .To being with analysis of dividend payment practices of the banks is done at first. In the second part of the chapter, analysis of impact of dividend policy on market price of share and relationship of dividend with other key variables are done with the help of the statistical tools mentioned in the chapter .In the third part, hypothetical analysis is done .This is the main central nervous system, which helps to conclude the study through major findings, vital issues and recommendation. This chapter makes the proper linkage with other chapter.

## 4.1 Analysis of Financial Indicators and Variables

### 4.1.1. Analysis of Earning Per Share (EPS)

Generally, the performance and achievements of business organization are measured in term of their capability to generate earnings. The earnings of any business organization also helps to evaluate performance Higher earning indicates the strength and Lower earning denotes the weakness of business organization because the earning of any organization helps for its growth, expansion and modernizations. The earning power of the business unit is measured in terms of earning per share(EPS).EPS calculation made over the years indicates weather the company's earning power per share has improved or deteriorated over period .So EPS is one of the vital variables measuring the firm's earning generation.

**Table No. 4.1**

**Analysis of EPS**

| Year | EPS | | | | | | Pooled Average |
|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | BNL | UNL | KFC | AFC | |
| **2060/61** | 143.55 | 92.61 | 25.36 | 152.90 | 33.85 | 67.17 | 85.91 |
| **2061/62** | 143.14 | 105.49 | 37.80 | 205.50 | 2.77 | 65.97 | 93.45 |
| **2062/63** | 175.84 | 129.21 | 34.73 | 258.70 | 17.97 | 65.97 | 113.74 |
| **2063/64** | 167.37 | 137.08 | 24.96 | 285.70 | 26.30 | 65.97 | 117.90 |
| **2064/65** | 131.92 | 108.31 | 25.36 | 364.00 | 20.03 | 22.25 | 111.98 |
| **Average** | **152.36** | **114.54** | **29.64** | **253.36** | **20.18** | **54.47** | **104.59** |
| **S.D.** | **16.47** | **16.28** | **5.50** | **71.69** | **10.32** | **17.61** | |
| **CV(%)** | **10.81** | **14.21** | **18.54** | **28.30** | **51.13** | **0.31** | |

*(Source : Annual Reports of the companies)*

The above table 4.1 shows the amount of earning per share of the sample banks from FY 2061/62 to FY 2064/65.SCBL, has the highest average EPS among the selected companies Rs.152.36. The bank has maintained its average EPS only on fiscal year 2062/63 and 2064/65.The EPS of the bank ranges between 131.92 to 175.84.Standard deviation of EPS of SCBL is 16.47 and CV is 10.81%. The cross-section analysis shows that the bank is always above the pooled average EPS.

The average EPS of NABIL is Rs.114.54 .The bank has maintained its average EPS in fiscal year 2062/63 and 2063/64.The EPS of bank ranges between Rs.92.61 to Rs.137.08 .Standard deviation of EPS of NABIL is 16.28 and its CV is 14.21%.,which is higher than that of SCBL. The cross-section analysis shows that the bank is above the pooled average EPS ONLY ON FY 2063/64.

Likewise, the average EPS of BNL is Rs.29.64 .The companies has maintained its average EPS in fiscal year 2061/62 and FY 2062/63.The EPS of bank ranges between Rs.25.36 to Rs.37.80 .Standard deviation of EPS of BNL is 5.5 and its CV is 18.54%.,which is higher than that of SCBL and NABIL. The cross-section analysis shows that the company is always below the pooled average in all fiscal years.

In the same way ,the average EPS of UNL is Rs.253.36.The companies has maintained its average EPS after FY 2062/63.Befo`re FY 2062/63 the company is unable to maintain its average EPS. The EPS of the company ranges from Rs.152.90 to Rs.364.Standaaard deviation of EPS of UNL is 71.69 and its CV is 28.30%.That means the EPS of UNL is more fluctuate than the EPS of NABIL, SCBL and BNL. The cross-section analysis shows that the company is above the pooled average in FY 2060/61 and FY 2061/62.

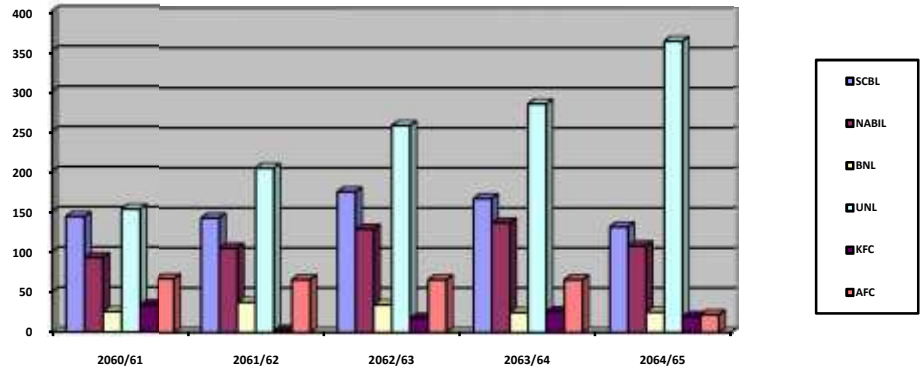
The average EPS of KFC is Rs.20.18 .The Company has maintained its average EPS only on year FY 2060/61 only FY 2063/64 .The EPS of the company ranges from Rs.2.77 to Rs.33.85.Standard Deviation of EPS of KFC is 10.32 and its CV is 51.13%, which means KFC is more fluctuate then other companies. The cross-section analysis shows that the company is always below the pooled average in all fiscal years.

Likewise the EPS of AFC is Rs.57.47.The company has maintained its average EPS in every year except FY 2064/65.Thr EPS of the company ranges from Rs.22.25 to Rs.67.17.Standard Deviation of EPS of AFC is 17.61 and CV is only .31%, which means AFC fluctuate more than other. The cross-section analysis shows that the bank is always below the pooled average in all fiscal years.

Comparing overall performance of companies among selected for the study of EPS, only three out of six has been found to maintain composite average. The composite average EPS is Rs.104.59 and the average of SCBL, NABIL and UNL is more than Rs.104.59.

**Figure No.4.1**

**Analysis of EPS**




### 4.1.2 Analysis of Dividend per Share (DPS)

DPS indicates the portion of earning distributed to the shareholders on per share basis. The following table shows all details relating to dividend per share.

**Table No. 4.2**

**Analysis of DPS**

| Year | DPS | | | | | | Pooled Average |
|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | BNL | UNL | KFC | AFC | |
| **2060/61** | 110 | 65 | 5.00 | 100 | - | 12 | 48.67 |
| **2061/62** | 120 | 70 | - | 400 | - | 52.63 | 107.11 |
| **2062/63** | 140 | 85 | - | 250 | 10.53 | 63.19 | 91.45 |
| **2063/64** | 130 | 140 | - | 275 | 10 | 10.53 | 94.26 |
| **2064/65** | 130 | 100 | 5.00 | 325 | 15 | 21.05 | 99.34 |
| **Average** | **126** | **92** | **2.00** | **270** | **7.11** | **31.88** | **89.83** |
| **S.D.** | **10.20** | **26.94** | **2.45** | **99.25** | **5.92** | **21.81** | |
| **CV (%)** | **8.09** | **29.29** | **122.47** | **36.76** | **83.21** | **0.68** | |

*(Source : Annual Reports of the companies)*

The above table 4.2 shows the amount of dividend per share of the sample banks from FY 2060/2062 .In table SCBL has the highest average DPS among the selected companies that is Rs.126.The bank has maintained its average DPS only from 2062/63 onwards. DPS of bank is in increases to Rs.140 in FY 2062/63, which was

Rs.110 in FY 2060/61, after that it decreases to Rs.130 in next two fiscal year .The DPS ranges from Rs.110 to Rs.140. The Standard Deviation of DPS of SCBL is 10.20 and its CV is 8.09 % .The Cross-section analysis shows that the bank is always above the pooled average DPS.

The average DPS of NABIL is Rs.92 .The bank has maintained its average DPS in FY 2063/64 and 2064/65.The DPS of bank range between Rs.65 to Rs.140 in given five years. Standard Deviation of DPS of NABIL is 26.94 and its CV is 29.29%, which is higher than that of SCBL. That means the DPS of NABIL is more fluctuated then that of SCBL. The cross-section analysis shows that the bank is below the pooled average DPS in FY 2061/62 and FY 2062/63.

Likewise, the average DPS of BNL is only Rs.2. The company has maintained its average DPS on FY 2060/61 and FY 2064/65, in other fiscal year the company has not declared dividend. The DPS of the company is only Rs.5, in two fiscal years. Standard Deviation of DPS of BNL is 2.45 and its CV is 122.47%. That means The DPS of BNL is more fluctuate then that of NABIL and SCBL. The cross-section analysis shows that the bank is always below the pooled average DPS.

The average DPS of UNL is Rs.270. The bank has maintain its average DPS after FY 2061/62.The DPS of the company ranges from Rs.100 to Rs.400, in FY 2061/62.The Standard Deviation of the UNL is 99.25 and its CV is 36.76%, which is less then of BNL and more then CV of SCBL and NABIL ,so DPS of UNL fluctuate more then these banks and less then BNL, which CV is122.47%. The cross-section analysis shows that the bank is always above the pooled average DPS except FY 2060/61.

The average DPS of KFC is Rs.7.11.The company maintain its average DPS in all fiscal year when company paid dividend. The DPS of the company ranges from Rs.0 to Rs.15. Standard Deviation of DPS of KFC is5.92 and its CV is 83.21%, which is lesser then that of BNL only among the selected companies. The Cross-section analysis shows the company is always below the pooled average.

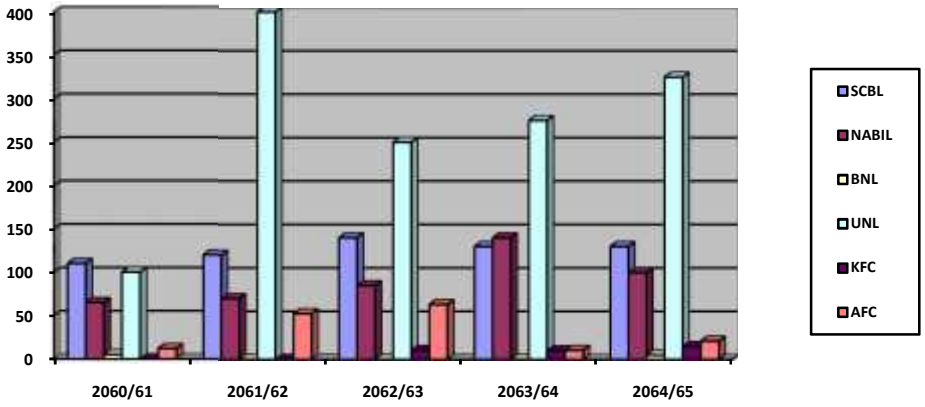
Likewise, the average DPS of AFC is Rs. 31.88. The company has not maintain its average DPS in the fiscal year 206/61 and 2063/64. The DPS of the Company ranges

between Rs.10.53 to Rs.63.19. Standard Deviation of DPS of AFC is 21.81 and its CV is only 0.68%, which is the least CV among the selected companies. The Cross-section analysis shows the company is always in below pooled average DPS.

Comparing overall performance of companies among selected for the study of DPS, only three out of six has been found to maintain composite average. The composite average DPS is Rs.89.73 and the average of SCBL, NABIL and UNL is more than Rs.89.73.

**Figure No. 4.2**

**Analysis of DPS**




### 4.1.3. Analysis of Market Price per Share (MPS)

Market price of share refers to the value paid to a share of the firm by the investors in stock market .This price fixed on the basis of demand and supply interaction of a specified share in the stock market .MPS represents the closing market price of the particular share in the particular fiscal year in NEPSE. The following table shows the market price of sample firms.

**Table No. 4.3**

**Analysis of MPS**

| Year | MPS | | | | | | Pooled Average |
|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | BNL | UNL | KFC | AFC | |
| **2060/61** | 1745 | 1000 | 700 | 1100 | 235 | 420 | 866.67 |
| **2061/62** | 2345 | 1505 | 554 | 1380 | 205 | 450 | 1073.17 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **2062/63** | 3775 | 2240 | 635 | 1630 | 138 | 431 | 1474.83 |
| **2063/64** | 5900 | 5050 | 500 | 2500 | 140 | 500 | 2431.67 |
| **2064/65** | 6830 | 5275 | 520 | 3400 | 203 | 500 | 2788 |
| **Average** | **4119** | **3014** | **581.8** | **2002** | **184.20** | **460.20** | **1726.87** |
| **S.D.** | **1971** | **1799.43** | **74.95** | **841.58** | **38.61** | **33.88** | |
| **CV (%)** | **47.85** | **59.70** | **12.88** | **42.04** | **20.96** | **7.36** | |

*(Source: Annual Reports of the companies)*

The above table presents the MPS of the six sample companies for the period of five fiscal year starting from 2060/61 to 2064/65.It shows that MPS of a the companies are in increasing order. The MPS of SCBL is also in increasing order ranges from RS.1745 in FY 2060/61 to Rs.6830 in FY 2064/65.Its average MPS is Rs.4119. The MPS of the banks is above average in FY 2063/64 and FY 2064/65. Standard Deviation of MPS of SCBL is 1971 and its CV is 47.85% .The cross-section analysis sows that the bank is always above the pooled average MPS.

The average MPS of NABIL is Rs.3014 .The MPS of the bank is above average in FY 2063/64 and FY2064/65. The MPS of the bank ranges from Rs.1000 to Rs.5275. Standard Deviation of MPS of NABIL is 1799.43 and its CV is 59.70% ,which is higher then that of SCBL. That means the MPS of NABIL is more fluctuating than that of SCBL. The cross-section analysis sows that the bank is always above the pooled average MPS.

Likewise, the average MPS of BNL is Rs.581.80.The MPS of the company is above average MPS in FY 2060/61 and FY 2062/63.The MPS of the company range from Rs.500 to Rs.700.The MPS decrease to RS.554 in FY 2061/62 from Rs.700 MPS in FY 2060/61.The Standard Deviation of MPS of the BNL is 74.95 and its CV is 12.88%.That means the MPS of BNL is less fluctuate than SCBL and NABIL. The cross-section analysis shows that the bank is always below the pooled average MPS.

In the same way, the average MPS of UNL is Rs.2002. The MPS of the company is above average MPS in FY 2063/64 and FY 2064/65. The MPS of the company range from Rs.1100 to Rs.3400.The MPS increase every year and reach to Rs. 3400 in FY 2064/65. The Standard Deviation of MPS of the UNL is 841.58 and its CV is 42.04%.

That means The MPS of UNL is less fluctuate than SCBL and NABIL and more then BNL. The cross-section analysis sows that the company is always above the pooled average MPS.

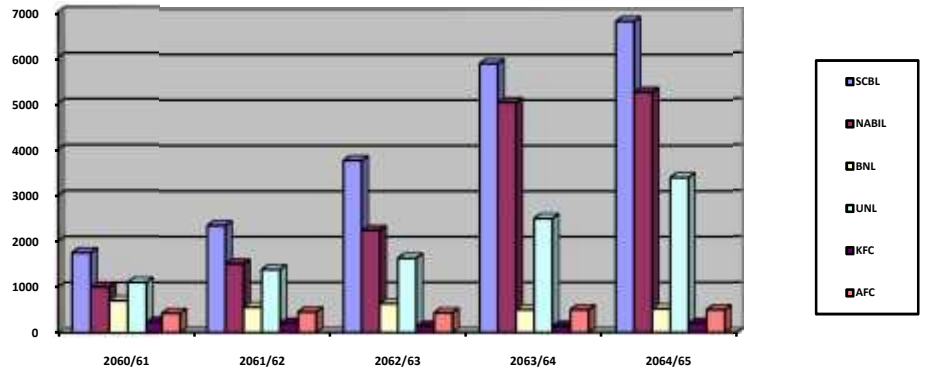
The average MPS of KFC is Rs.184.20.The MPS of the company is above the average MPS in three fiscal years except FY 2062/63 and FY 2063/64. The MPS of the company ranges between Rs.138 to Rs.235. Standard Deviation of MPS of KFC is 33.88 and its CV is 20.96% .The cross-section analysis shows the company is below pooled average in all fiscal years.

Likewise, the average MPS of AFC is Rs.460.20. The MPS of the company is above average MPS only in last two fiscal years. The MPS of the company ranges from Rs.420 to Rs.500. Standard Deviation of MPS of AFC is 33.88 and its CV is 7.36%. which is the lowest among all selected companies, which indicates that MPS of AFC fluctuate less among companies. The Cross-section analysis shows the company is below pooled average in all fiscal year.

Comparing overall market performance of companies' share among all selected companies for the study of MPS, only three out of six has been found to maintain its share price above the composite average MPS. The composite average MPS is Rs.1726.87 and the average of SCBL, NABIL and UNL is more then Rs.1726.87.

**Figure No.4.3**

**Analysis of MPS**



### 4.1.4 Analysis of Dividend Payout Ratio (DPR)

The amount of dividend that a company pays depends upon the earning capacity of the company. Greater earning enhances the ability to pay more dividends and vice versa. In connection with this, dividend payout ratio reflects that percentage of current profit, which has been distributed as dividend and what percentage has retained to finance the growth of the company. It is the attitude of the management towards the treatment of profit in respect to distribution of dividend and retained earning.

The following table shows the Dividend Payout Ratio (DPR) of sample companies.

**Table No. 4.4**

**Analysis of DPR**

| Year | DPR | | | | | | Pooled Average |
|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | BNL | UNL | KFC | AFC | |
| **2060/61** | 76.63 | 70.19 | 19.72 | 65.40 | - | 17.87 | 41.63 |
| **2061/62** | 83.83 | 66.36 | - | 194.65 | - | 79.78 | 70.77 |
| **2062/63** | 79.62 | 65.78 | - | 96.66 | 58.58 | 95.74 | 66.06 |
| **2063/64** | 77.67 | 102.13 | - | 96.25 | 38.02 | 15.96 | 55.06 |
| **2064/65** | 98.54 | 92.33 | 19.72 | 89.29 | 74.89 | 94.61 | 78.23 |
| **Average** | **83.26** | **79.36** | **7.89** | **108.45** | **34.29** | **60.79** | **62.35** |
| **S.D.** | **8.03** | **14.99** | **9.66** | **44.56** | **30.34** | **36.27** | |
| **CV (%)** | **9.64** | **18.89** | **122.44** | **41.09** | **88.19** | **59.67** | |

*(Source: Annual Reports of the companies)*

In the above table (table no.4.4) SCBL has DPR ranging from 76.63% to 98.54%.The mean, Standard Deviation and CV is 83.26%, 8.03% and 9.64% respectively. The mean DPR 83.26% is second highest DPR among the all selected companies. The CV of 9.64% explicitly means that there is 9.64% fluctuation in DPR of the company during study period. The cross section analysis shows that the bank's DPR is above the pooled average in all years.

Likewise, the DPR of NABIL ranges from 65.78% to 102.13%.The average, Standard Deviation and CV of DPR of NABIL is 79.36%, 14.99% and 18.89% respectively. The CV of 18.89% reflects that there is 18.89% fluctuation in DPR of bank during the

study period, which is more than that of SCBL. The cross section analysis shows the bank's DPR is below the pooled average in fiscal year 2061/62 and 2062/63,and above in other fiscal year.

Similarly, the analysis of DPR of BNL, one can see it is 19.72% in two fiscal years because dividend is paid only on two fiscal years which is taken as sample to study. In fiscal year 2061/62, 2062/63 and 2063/64 the company didn't paid any dividend. Its mean is 7.89% and standard deviation is9.66%.The CV is 122.44%, which is the highest CV comparing to other sample studies. It indicated the 122.44% fluctuation in DPR of the company during the study period. The cross-section analysis shows that the company's DPR is below the pooled average in all years of study period.
In case of UNL its DPR is found to be ranges from 65.4% to 194.65%. The mean, SD and CV of DPR of the company is 108.45%, 44.56% and 41.09%. The mean 108.45% is he highest mean among the sample studied. The CV of 41.09% explicitly means that there is 41.09% fluctuation in DPR of the company during the study period. The cross-section analysis shows that the company's DPR is above the pooled average in all years except fiscal year 2060/61.

In the same way, DPR of KFC is ranged from 0% to 74.89%. Its mean DPR is 34.29% and SD and CV is 30.34% and 88.19% respectively, which indicates that the DPR of the company is fluctuate by 88.19% during the study period .The cross-section analysis shows that DPR of the company is below the pooled average DPR of all the years of study period.

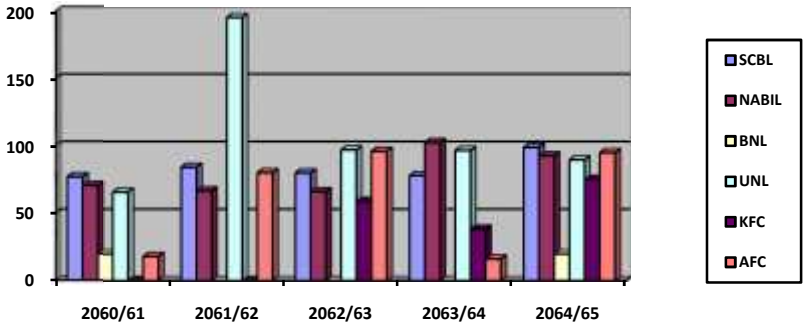
Likewise, DPR of AFC is ranged between 15.96% to 95.74%.The mean DPR is 60.79% and the Standard Deviation is 36.27. The CV of the company is 88.19%, which indicates that the DPR of the company fluctuate by 88.19% during the study period. The cross-section analysis shows that DPR of the company is always above the average pooled DPR except in the FY 2060/61and 2063/64.

Going through the above table 4.4 it is clear that BNL has the highest fluctuation in DPR (122.44%) and SCBL has the lowest fluctuation in DPR (9.64%) among all. Going through the facts, it has been clear that Nepalese companies are not following

stable dividend payout policy. Only three companies (SCBL, NABIL, and UNL) are found to maintain above composite average dividend payout ratio.

**Figure No. 4.4**

**Analysis of DPR**




### 4.1.5 Analysis of Dividend Yield Ratio (DYR)

Dividend Yield Ratio is highly influenced by the market value per share and dividend per share .This ratio highly influences the market value per share because small change in dividend per share can bring effective change in market value of that share. Therefore, before allocation of a market scenario and price fluctuation is said to be studied and evaluated for the long run survival of the company.

The following table shows Dividend Yield Ratio (DYR) of the sample companies.

**Table No. 4.5**

**Analysis of DYR**

| Year | DYR | | | | | | Pooled Average |
|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | BNL | UNL | KFC | AFC | |
| **2060/61** | 6.3 | 6.5 | 0.72 | 9.09 | - | 2.86 | 4.25 |
| **2061/62** | 5.12 | 4.65 | - | 28.99 | - | 11.7 | 8.41 |
| **2062/63** | 3.71 | 3.79 | - | 15.34 | 7.63 | 14.65 | 7.52 |
| **2063/64** | 2.2 | 2.77 | - | 11 | 7.14 | 2.11 | 4.2 |
| **2064/65** | 1.9 | 1.9 | 0.96 | 9.56 | 7.39 | 4.21 | 4.28 |
| **Average** | **3.85** | **3.92** | **0.34** | **14.8** | **4.43** | **7.09** | **5.73** |
| **S.D.** | **1.68** | **1.62** | **0.42** | **7.43** | **3.62** | **5.09** | |
| **CV (%)** | **43.71** | **41.36** | **123.08** | **50.21** | **81.76** | **71.75** | |

*(Source: Annual Reports of the companies)*

Above table shows that average DYR of SCBL is 3.85%, which is maintained by bank in the year all fiscal year except FY 2064/65.Dividend yield of the bank rages from 1.90% to 6.3%.The standard deviation of DYR is 1.68% and CV is 43.71%.The DYR of bank is fluctuate by 43.71% during the study period. The cross-section analysis reveals that the bank is above pooled average in the year 2060/61 and 2064/65.

Analysis of NABIL shows that the dividend yields of the bank ranges from 1.90% to 6.50%.The average DYR of the bank is 3.92%,which is maintained by the bank in fiscal year 2060/61,6061/62 and 2062/63 only. The standard deviation of DYR of bank is 1.62% and it is fluctuated by 41.36%, i.e. banks DYR CV I 41.36%, during the study period. The cross-section analysis shows that the bank is below pooled average in all fiscal year after fiscal year 2060/61.

BNL has average dividend yield .34%, during the study period. It's DYR is only on first and last year of the study period, when the company paid dividend. Its SD is 0.34 and CV is 123.08% which means its DYR fluctuate more than that of NABIL and SCBL during study period. While applying cross-section analysis, it shows the DYR of the company is below the pooled average in all study period.

Dividend Yield of UNL range from 9.09% to 28.99%. Its average during the study period is 14.80% and SD is 7.43.It has CV of 80.21%, which indicates there 50.21% fluctuation on DYR. The cross-section analysis reveals that the bank is above pooled average in all the year.

Similarly, average DYR of KFC ranges from 0 to 7.63% .Its average DYR is 4.43%. and SD is 3.62. Its CV is 81.76% .The company has not paid dividend in first three fiscal year. The cross-section analysis reveals that the bank is above pooled average in fiscal year 2063/64 only.

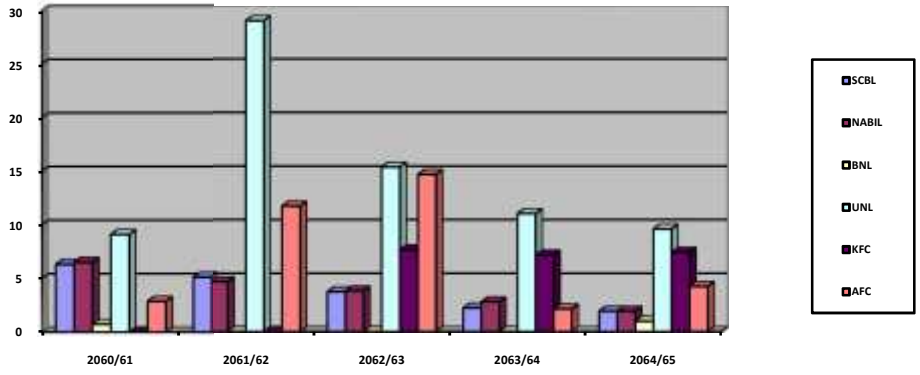
Finally, DYR of AFC ranges from 2.11% to 14.65% and its standard deviation is 5.09. The CV of DYR of AFC is 71.75%, which is the second highest CV among all the companies taken during the study. So AFC fluctuate more than other company

except BNL. The cross-section analysis reveals that the bank is below the pooled average in fiscal year 2060/61, 2063/64 and 2064/65.

In totality, UNL has the highest average DYR i.e.14.80% but the dividend yield of the company does not seem encouraging. It shows that investor have not got handsome return on their market value of share. Only two companies i.e. AFC and UNL, out of six companies are found to maintain above composite average dividend yield.

**Figure No. 4.5**

**Analysis of DYR**




### 4.1.6. Analysis of Price Earning Ratio (P/E Ratio)

Price earning ratio is concerned with the relationship of the market value per share. It indicates the price currently paid by the market value per share. It indicates the price currently paid by the market for each rupee of reported earning per share. The analysis of P/E Ratio helps to judge the investors expectations about the companies' performance and also market appraisal of the companies' performance. Higher P/E Ratio shows the better performance and vice-versa. Hence higher P/E ratio is regarded as better for both the banks and shareholders. It is calculated by dividing the market value per share by earning per share.

**Table no. 4.6**

**Analysis of P/E Ratio**

| Year | Price Earning Ratio(P/E Ratio) | | | | | | Pooled Average |
|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | BNL | UNL | KFC | AFC | |
| **2060/61** | 12.16 | 10.80 | 27.60 | 7.19 | 6.94 | 6.25 | 11.82 |
| **2061/62** | 16.38 | 14.27 | 14.66 | 6.72 | 74.77 | 6.82 | 22.27 |
| **2062/63** | 21.47 | 17.34 | 18.28 | 6.32 | 7.68 | 6.53 | 12.94 |
| **2063/64** | 35.25 | 38.84 | 20.03 | 8.75 | 5.32 | 7.58 | 19.30 |
| **2064/65** | 51.77 | 48.70 | 20.50 | 9.34 | 10.13 | 22.47 | 27.15 |
| **Average** | **27.41** | **25.99** | **20.21** | **7.66** | **20.97** | **9.93** | **18.70** |
| **S.D.** | **14.45** | **14.99** | **4.23** | **1.18** | **26.94** | **6.29** | |
| **CV (%)** | **52.43** | **57.68** | **20.91** | **15.35** | **128.47** | **63.30** | |

*(Source: Annual Reports of the companies)*

Above table depicts that average P/E Ratio of SCBL is 27.41 times. It ranges from 12.16 x to 51.77x. The ratio is above average only in the fiscal year 2063/64 and 2064/65.Its SD is 14.45 and CV is 52.43%.There seems 52.43% fluctuation in P/E Ratio of the bank during the study period. Cross-section analysis shows that the company is able to meet pooled average in all years except 2061/62.

Analysis of NABIL shows that average P/E Ratio of NABIL is 25.99 times. It ranges from 10.8 x to 48.70x. The ratio is above average only in the fiscal year 2063/64 and 2064/65.Its SD is 14.99 and CV is 57.68%. There seems 57.68% fluctuation in P/E Ratio of the bank during the study period. Cross-section analysis shows that the company is able to meet pooled average in all years except 2060/61.

Likewise, BNL has average P/E ratio of 20.21 x. It ranges from 14.60x to 27.60x. Its SD is 4.23 and CV is 20.91%, which indicates the fluctuation in P/E ratio is 20.91%.The cross-section analysis shows that the company is unable to meet the pooled average only in the year 2061/62 and 2064/65.

P/E Ratio of UNL ranges from 6.32x to 9.34x. Its SD is 1.18 and CV is 15.35%, which indicates the fluctuation in P/E ratio is 15.35%. The cross-section analysis shows that the company is unable to meet the pooled average in all the studied year.

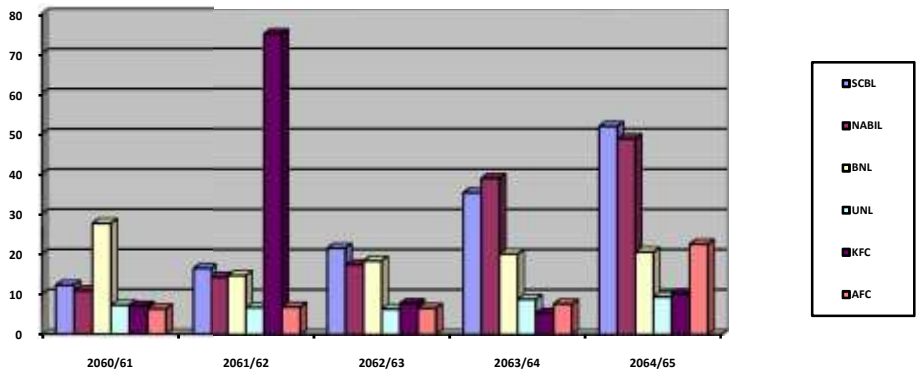
Similarly, average P/E ratio of KFC is 20.97 x and its SD is 26.94.It has CV of 128.47% during the study, which is also the highest CV among the studied companies, so it has high variability than others in P/E ratio. The cross-section analysis shows that the company is unable to meet pooled average in all the years except 2061/62.

Finally, P/E Ratio of AFC ranges from 6.25 x to 22.47 x. Its SD is 6.29 and CV is 63.30%, which indicates the fluctuation in P/E ratio is 63.30%.The cross-section analysis shows that the company is unable to meet the pooled average in all the studied year.

Ongoing to the comparative analysis of P/E Ratio figures of the above samples only two companies cannot meet the composite average; those companies are BNL and AFC. The highest average P/E ratio is 27.41 x and that is of SCBL. The lowest P/E ratio is 7.66 and that is of UNL. The UNL has the lowest fluctuation and KFC has highest fluctuation.

**Figure no. 4.6**

**Analysis of P/E Ratio**



### 4.7 Analysis of Earning Yield Ratio (EYR)

This ratio significantly influences the market value per share because a small change in EPS brings effective change in the market value of the share. The main reason behind such kind of tabulation is to point out the percentage relationship between EPS-MPS so as to illustrate the earning yield of the concerned companies, which may be reliable tool to calculate the real value of the dividend as compared with current market value of each share. This ratio is calculated by dividing the earning per share by the market price per share.

The following table shows the earning yield ratio of sample companies.

**Table no. 4.7**

**Analysis of Earning Yield Ratio (EYR)**

| Year | Earning Yield Ratio (EYR) | | | | | | Pooled Average |
|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | BNL | UNL | KFC | AFC | |
| **2060/61** | 8.23 | 9.26 | 3.62 | 13.90 | 14.40 | 15.99 | 10.9 |
| **2061/62** | 6.14 | 7.01 | 6.82 | 14.89 | 1.32 | 14.48 | 8.44 |
| **2062/63** | 4.66 | 5.77 | 5.47 | 15.87 | 13.02 | 15.31 | 10.02 |
| **2063/64** | 2.84 | 2.71 | 4.99 | 11.43 | 18.79 | 13.19 | 8.99 |
| **2064/65** | 1.93 | 2.05 | 4.88 | 10.71 | 9.87 | 4.45 | 5.64 |
| **Average** | **4.76** | **5.36** | **5.16** | **13.36** | **11.48** | **12.68** | **8.80** |
| **S.D.** | **2.26** | **2.69** | **1.03** | **1.98** | **5.83** | **4.22** | |
| **CV (%)** | **47.58** | **50.12** | **20.01** | **14.85** | **50.81** | **33.29** | |

*(Source: Annual Reports of the companies)*

SCBL has the highest EYR in the year 2060/61.It has average EYR of 4.76%.The SD and CV is 2.26 and 47.58% respectively. The fluctuation of EYR of SCBL is 47.58%. The company has maintained the average EYR in the year 2060/61, 2061/62 and 2062/63.Cross-section analysis shows the bank is always below the pooled average in all years except year 2060/61.

Likewise, EYR of NABIL ranges from 2.05% to 9.26% .Its mean, SD and CV is 5.36%, 2.69 and 50.12% respectively. The fluctuation in EYR is 50.12% during the study period. The company is able to meet its average EYR in the year2060/61, 2061/62 and 2062/63 only. The cross section analysis shows that the company lies always below the pooled average during the study period.

In the same way, BNL has the highest EYR in the year 2061/62. It has average EYR of 5.16%.The SD and CV of BNL is 1.06 and 20.01% respectively. The fluctuation of EYR of BNL is 20.01%. The company has maintained the average EYR in the year 2061/62 and 2062/63 .Cross-section analysis shows the bank is always below the pooled average in all years during the study period.

EYR of UNL ranges from 10.71% to 15.87%. Its mean, SD and CV is 13.36%, 1.98 and 14.85% respectively. The fluctuation in EYR is 14.85% during the study period, which indicates low fluctuation in EYR comparing to other companies. The company is able to meet its average EYR in the year2060/61, 2061/62 and 2062/63 only. The cross section analysis shows that the company lies always above the pooled average during the study period.

Similarly, average EYR of KFC is 11.48% and its SD is 5.83.It has CV of 50.81% during the study period, which indicates the highest fluctuation in EYR among the selected companies. The cross section analysis shows that the company lies always above the pooled average during the year except in fiscal year 2061/62.

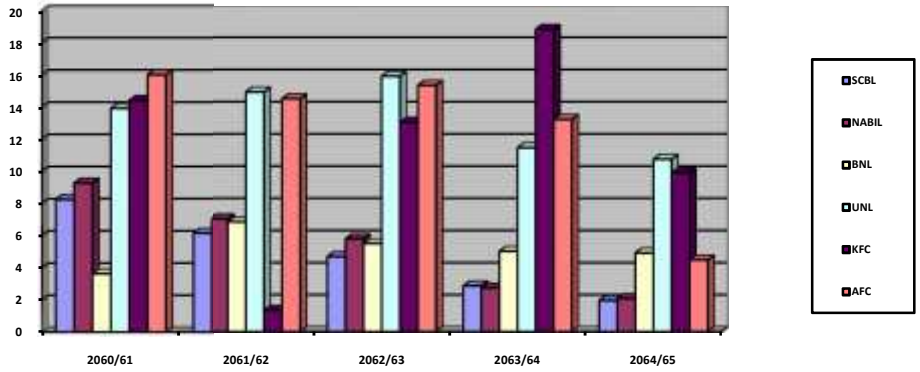
Finally, EYR of AFC ranges from 4.45% to 15.99%. Its mean, SD and CV is 12.68, 4.22 and 33.29% respectively. The fluctuation in EYR is 33.29% during the study period. The company is able to meet its average EYR in the year all year except fiscal year 2064/65. The cross section analysis shows that the company lies always above the pooled average during the study period except in fiscal year 2064/65.

Ongoing to the companies of the EYR figures of the above samples, in the early years of study all companies have higher EYR but it decreases in subsequent year. From table we know only three companies i.e. UNL, KFC and AFC can meet composite average(8.8%).The highest average EYR is 13.36% of UNL and the lowest average

EYR is 4.76% of SCBL. The SCBL has lowest fluctuation and UNL has highest fluctuation.

**Figure no. 4.7**

**Analysis of Earning Yield Ratio (EYR)**




## 4.2 Analysis of Statistical Indicators and Variables

### 4.2.1 Correlation Between EPS and DPS

Correlation analysis is a statistical tool which studies the relationship between two variables .correlation analysis involves various methods and techniques which is used for studying and measuring the extent of the relationship between two variables ,whether a positive or a negative relationship exist between two variables. It also indicates whether the relationship is significant or insignificant and the correlation analysis is used to identify the relationship between EPS and DPS, EPS and MPS, Last Dividend and MPS.

**Table no. 4.8**

**Correlation Between EPS and DPS**

| Name of the company | Coefficient of Correlation(r) | Relationship | Coefficient of Determination($r^2$) | Probable Error (PE) | Significant/ Insignificant |
|---|---|---|---|---|---|
| SCBL | 0.60 | Positive | 0.36 | 0.1931 | Insignificant |
| NABIL | 0.79 | Positive | 0.62 | 0.1147 | Significant |
| BNL | -0.64 | Negative | 0.41 | 0.1781 | Insignificant |
| UNL | 0.48 | Positive | 0.23 | 0.2321 | Insignificant |
| KFC | 0.11 | Positive | 0.01 | 0.2980 | Insignificant |
| AFC | 0.23 | Positive | 0.05 | 0.2857 | Insignificant |

The above table explains the relationship between EPS and DPS of the concerned companies. The coefficient of correlation between EPS and DPS of SCBL is 0.60, which shows that there is high degree of positive correlation between EPS and DPS of SCBL. Likewise, its coefficient of determination is 0.36 which means, DPS is affected by EPS only by 36% and the rest 64% is affected by other variables. Since r< 6PE, the value of r is insignificant, i.e. the correlation is uncertain.

Likewise, coefficient of correlation between EPS and DPS of NABIL is 0.79, which shows there is high degree of positive correlation between EPS and DPS of NABIL. Likewise, its coefficient of determination is 0.62 which means, DPS is affected by EPS only by 62% and the rest 38% is affected by other variables. Since r> 6PE, the value of r is significant, i.e. the correlation is certain.

In the same way, coefficient of correlation between EPS and DPS of BNL is -0.64, which shows there is high degree of negative correlation between EPS and DPS of BNL. Its coefficient of determination is 0.41, which means 41% of DPS is affected by EPS and rest 59% is due to other unknown factors. Since r<6PE, the value of r is insignificant, i.e. the correlation is uncertain.

The coefficient of correlation between EPS and DPS of UNL is 0.48, which shows there is low degree of positive correlation between EPS and DPS of UNL. Likewise, its coefficient of determination is 0.23 which means, DPS is affected by EPS only by 23% and the rest 77% is affected by other variables. Since r< 6PE, the value of r is insignificant, i.e. the correlation is uncertain.

The coefficient of correlation between EPS and DPS of KFC is 0.11, which shows there is low degree of positive correlation between EPS and DPS of KFC. Likewise, its coefficient of determination is 0.01(almost zero) which means, DPS of KFC is not affected by EPS at all. Since r< 6PE, the value of r is not significant.

Finally, coefficient of correlation between EPS and DPS of AFC is 0.23, which shows there is low degree of positive correlation between EPS and DPS of AFC. Its coefficient of determination is .05, which means only 5% of DPS is affected by EPS

and rest 95% is due to other unknown factors. Since r<6PE, the value of r is insignificant, i.e. the correlation is uncertain.

From the analysis of above table it can be conclude that DPS of the banks is somewhat determined by the level of EPS but that of manufacturing sector and financial sector is determined by other factors rather than EPS.

#### 4.2.1.2 Correlation between Last EPS and MPS

**Table no. 4.9**

**Correlation Last EPS and MPS**

| Name of the company | Coefficient of Correlation(r) | Relationship | Coefficient of Determination($r^2$) | Probable Error (PE) | Significant/ Insignificant |
|---|---|---|---|---|---|
| SCBL | 0.66 | Positive | 0.44 | 0.1702 | Insignificant |
| NABIL | 0.53 | Positive | 0.28 | 0.2169 | Insignificant |
| BNL | 0.09 | Positive | 0.001 | 0.2992 | Insignificant |
| UNL | 0.38 | Positive | 0.14 | 0.2581 | Insignificant |
| KFC | 0.08 | Positive | 0.006 | 0.2997 | Insignificant |
| AFC | 0.60 | Positive | 0.36 | 0.1931 | Insignificant |

The above table explains the relationship between Earning per Share of last year [$EPS_{(t-1)}$] and Market price per Share of the concerned companies. The coefficient of correlation between [$EPS_{(t-1)}$] and MPS of SCBL is 0.66,which shows that there is moderate degree of positive Correlation between [$EPS_{(t-1)}$] and MPS of SCBL. Likewise, its coefficient of determination is 0.44 means, MPS is affected by $EPS_{(t-1)}$ only by 44% and rest 56% by other unknown variables .Since r<6PE, the value of r is not significant.

Likewise, coefficient of correlation between [$EPS_{(t-1)}$] and MPS of NABIL is 0.53,which shows that there is moderate degree of positive Correlation between [$EPS_{(t-1)}$] and MPS of NABIL. Likewise, its coefficient of determination is 0.28 means, MPS is affected by $EPS_{(t-1)}$ only by 28% and rest 72% by other unknown variables .Since r<6PE, the value of r is not significant.

In the same way, coefficient of correlation between [$EPS_{(t-1)}$] and MPS of BNL is 0.09, which shows that there is low degree of positive Correlation between [$EPS_{(t-1)}$] and MPS of BNL. Likewise, its coefficient of determination is 0.001, which is almost zero that means MPS is affected by $EPS_{(t-1)}$ only by 0.1% and rest 99.99% by other unknown variables .Since r<6PE, the value of r is not significant.

The coefficient of correlation between [$EPS_{(t-1)}$] and MPS of UNL is 0.38,which shows that there is low degree of positive Correlation between [$EPS_{(t-1)}$] and MPS of UNL. Likewise, its coefficient of determination is 0.14 which means, MPS is affected by $EPS_{(t-1)}$ only by 14% and rest 86% by other unknown variables .Since r<6PE, the value of r is not significant.

The coefficient of correlation between [$EPS_{(t-1)}$] and MPS of KFL is 0.08,which shows that there is low degree of positive Correlation between [$EPS_{(t-1)}$] and MPS of KFL. Likewise, its coefficient of determination is 0.06 means, MPS is affected by $EPS_{(t-1)}$ only by .6% and rest 99.4% by other unknown variables .Since r<6PE, the value of r is not significant.

Likewise, coefficient of correlation between [$EPS_{(t-1)}$] and MPS of AFL is 0.60,which shows that there is moderate degree of positive Correlation between [$EPS_{(t-1)}$] and MPS of NABIL. Likewise, its coefficient of determination is 0.36 means, MPS is affected by $EPS_{(t-1)}$ only by 36% and rest 64% by other unknown variables .Since r<6PE, the value of r is not significant.

From the analysis of above table it can conclude that MPS of the all companies is not affected by the earning per share of last year [$EPS_{(t-1)}$] since remarks of all companies is insignificant.

#### 4.2.1.3 Correlation Between Last DPS and MPS

**Table no. 4.10**

**Correlation Last DPS and MPS**

| Name of the company | Coefficient of Correlation(r) | Relationship | Coefficient of Determination($r^2$) | Probable Error (PE) | Significant/ Insignificant |
|---|---|---|---|---|---|
| SCBL | 0.20 | Positive | 0.040 | 0.2896 | Insignificant |
| NABIL | 0.86 | Positive | 0.740 | 0.0785 | Significant |
| BNL | 0.31 | Positive | 0.096 | 0.2727 | Insignificant |
| UNL | 0.96 | Positive | 0.920 | 0.0236 | Significant |
| KFC | -0.32 | Negative | 0.102 | 0.5724 | Insignificant |
| AFC | -0.43 | Negative | 0.185 | 0.2458 | Insignificant |

The above table explains the relationship between dividend of last year [$DPS_{(t-1)}$] and the current MPS of the concerned companies. The coefficient of correlation between $DPS_{(t-1)}$and MPS of SCBL is 0.20,which shows there is low degree of positive correlation between $DPS_{(t-1)}$ and MPS of SCBL. Likewise, It's coefficient of determination is 0.04 means, MPS is affected by EPS only by 4% and the rest 96% is affected by other unknown variables. Since r<6PE, the value of r is not significant.

Likewise, the coefficient of correlation between $DPS_{(t-1)}$ and MPS of NABIL is 0.86,which shows there is high degree of positive correlation between $DPS_{(t-1)}$ and MPS of NABIL. Likewise, It's coefficient of determination is 0.74 means, MPS is affected by EPS only by 74% and the rest 26% is affected by other unknown variables. Since r>6PE, the value of r is significant.

In the same way, coefficient of correlation between $DPS_{(t-1)}$ and MPS of BNL is 0.31,which shows there is low degree of positive correlation between $DPS_{(t-1)}$ and MPS of BNL. Likewise, It's coefficient of determination is 0.096 means, MPS is affected by EPS only by 9.6% and the rest 90.4% is affected by other unknown variables. Since r<6PE, the value of r is not significant.

The coefficient of correlation between DPS(t-1) and MPS of UNL is 0.96,which shows there is high degree of positive correlation between DPS(t-1) and MPS of UNL. Likewise, It's coefficient of determination is 0.92 means, MPS is affected by EPS only by 92% and the rest 8% is affected by other unknown variables. Since r>6PE, the value of r is significant.

The coefficient of correlation between $DPS_{(t-1)}$ and MPS of KFC is -0.322,which shows there is low degree of negative correlation between $DPS_{(t-1)}$ and MPS of KFC. Likewise, It's coefficient of determination is 0.102 means, MPS is affected by EPS only by 10.2% and the rest 89.8% is affected by other unknown variables. Since r<6PE, the value of r is not significant.

Likewise, coefficient of correlation between $DPS_{(t-1)}$ and MPS of AFC is -0.43,which shows there is low degree of negative correlation between $DPS_{(t-1)}$ and MPS of AFC. Likewise, It's coefficient of determination is 0.185 means, MPS is affected by EPS only by 18.5% and the rest 81.5% is affected by other unknown variables. Since r<6PE, the value of r is not significant.

From the analysis of above table it can be conclude that MPS of the all companies is not affected by the last dividend [$DPS_{(t-1)}$] except in NABIL and UNL. That means there is no high significant relationship between the MPS and Last Dividend of the selected companies.

### 4.2.2 Regression Analysis

Regression Analysis is a very powerful tool in the field of statistical analysis in predicting the value of one variable, given the value of another variable, when these two variables are related to each other. It describes about the affect to the dependent variable due to change in dependent variable. The regression analysis can be either simple regression on multiple regressions. In simple regression analysis only one independent variable is taken for the prediction of the value of dependent variables. But multiple regression analysis involves two or more independent variables. In this study, simple regression analysis is used to establish relationship between the dependent variable and independent variable on the individual sample companies whereas the multiple regression analysis is used to show the combined relationship of dependent variables to other independent variables of all sample companies.

### 4.2.2.1 Simple Regression Analysis:

Simple Regression Analysis is used as a tool of determining the strength of relationship between two variables. Regression lines are expressed in terms of algebraic relation i.e.

$$Y=a + b\ x$$

Where 'y' is dependent variable and 'x' is independent variable. Similarly, 'a' is the intercept of the model, which indicates the average level of dependent variable when independent variable is zero. Likewise, regression coefficient 'b' describes how change in independent variables affects the value of dependent variables. Coefficient of multiple determinations ($r^2$) measures the percentage of tool variation in dependent variable explained by independent variable. But with the help of regression equation, perfect prediction is practically impossible. So standard error (SE) measures the accuracy of estimated figures. To test the validity of our assumption, t-test is used because the sample size is less than 30. If calculated value of 't' excess the table value say (0.05), we infer that the difference is significant at 5% level of significance. But, if't' is less than the concerning table value the difference is not treated as significant.

**A. Dependent Variable MPS and Independent Variable DPS of Last Year.**

Regression Equation: $MPS_t = a + b\ DPS_{(t-1)}$

**Table no. 4.11**

**Regression of MPS on $DPS_{(t-1)}$**

| Name of the Company | Constant (a) | Regression Coefficient(b) | Standard Error(SE) | $r^2$ | t- value |
|---|---|---|---|---|---|
| **SCBL** | (10850.76) | 118.80 | 2006.89 | 0.38 | 1.3560 |
| **NABIL** | (2278.15) | 57.52 | 1180.16 | 0.74 | 2.9221 |
| **BNL** | 563.00 | 9.40 | 92.07 | 0.09 | 0.5447 |
| **UNL** | 15249.81 | (49.06) | 1944.26 | 0.14 | 0.6988 |
| **KFC** | 481.74 | (0.67) | 39.39 | 0.19 | 0.8389 |
| **AFC** | 209.24 | (3.52) | 41.54 | 0.31 | 1.1610 |

Above table shows that the regression results between Market Price Per Share and Dividend of Last Year of the sample companies. As the result shows that the regression coefficient (b) of SCBL, NABIL, BNL, UNL, KFC and AFC is 118.80, 57.52, 9.40, (49.06), (0.67) and (3.52) respectively. In case of SCBL b is 118.80 that indicates that one rupee increase in last dividend leads to an average about Rs.118.80 increases in MPS, holding other variable constant. In case of NABIL b is 57.52 that indicates that one rupee increase in last dividend leads to an average about Rs.57.52 increases in MPS, holding other variable constant. In case BNL b is 9.40 that indicates that one rupee increase in last dividend leads to an average about Rs.9.40 increases in MPS, holding other variable constant. In case of UNL b is -49.06 that indicates that one rupee increase in last dividend leads to an average about Rs.49.06 decrease in MPS, holding other variable constant. In case of KFC b is -0.67 that indicates that one rupee increase in last dividend leads to an average about Rs.0.67 decreases in MPS, holding other variable constant. In case of AFC b is -3.52 that indicates that one rupee increase in last dividend leads to an average about Rs.3.52 decreases in MPS, holding other variable constant.

In case of SCBL, the coefficient of determination $r^2$ is 0.38, which indicate that only 38% of the variation of MPS is explained by explanatory variables $DPS_{(t-1)}$ .The remaining 62% variation is due to other factors. The standard error predicts the value of MPS based on $DPS_{(t-1)}$. The calculated value‘t’ is 1.3560, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance or it indicated that the variable in the population are uncorrelated.

In case of NABIL, the coefficient of determination $r^2$ is 0.74, which indicate that only 74% of the variation of MPS is explained by explanatory variables $D_{(t-1)}$. .The remaining 26% variation is due to other factors. The standard error predicts the value of MPS based on $DPS_{(t-1)}$. The calculated value‘t’ is 2.9221, which is more than that of tabulated value 2.776. So, it is statistically significant at 5% level of significance and it can be concluded that the variable in the population are correlated.

In case of BNL, the coefficient of determination $r^2$ is 0.09, which indicate that only 9% of the variation of MPS is explained by explanatory variables $DPS_{(t-1)}$. .The remaining 91% variation is due to other factors. The standard error predicts the value of MPS based on $DPS_{(t-1)}$. The calculated value‘t’ is 0.5447, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance and it can be concluded that the variable are uncorrelated in the population.

In case of UNL, the coefficient of determination $r^2$ is 0.14, which indicate that only 14% of the variation of MPS is explained by explanatory variables $DPS_{(t-1)}$. .The remaining 86% variation is due to other factors. The standard error predicts the value of MPS based on $DPS_{(t-1)}$. The calculated value‘t’ is 0.6988, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance and it can be concluded that the variable are uncorrelated in the population.

In case of AFC, the coefficient of determination $r^2$ is 0.19, which indicate that only 19% of the variation of MPS is explained by explanatory variables $DPS_{(t-1)}$ .The remaining 81% variation is due to other factors. The standard error predicts the value of MPS based on $DPS_{(t-1)}$. The calculated value‘t’ is 0.8389, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance and it can be concluded that the variable are uncorrelated in the population.

In case of KFC, the coefficient of determination $r^2$ is 0.31, which indicate that only 31% of the variation of MPS is explained by explanatory variables DPS(t-1). .The remaining 69% variation is due to other factors. The standard error predicts the value of MPS based on $DPS_{(t-1)}$ . The calculated value‘t’ is 1.1610, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance and it can be concluded that the variable are uncorrelated in the population.

## B. Dependent Variable MPS and Independent Variable EPS of Last Year.

Regression Equation: $MPS_t = a + b\ EPS_{(t-1)}$

**Table no. 4.12**

**Regression of $MPS_t$ on $EPS_{(t-1)}$**

| Name of the Company | Constant (a) | Regression Coefficient(b) | Standard Error(SE) | $r^2$ | t- value |
|---|---|---|---|---|---|
| **SCBL** | 4061.28 | 0.38 | 2544.44 | 0.3120 | 1.664 |
| **NABIL** | (3752.95) | 59.07 | 1963.45 | 0.2856 | 1.0951 |
| **BNL** | 545.41 | 1.23 | 96.36 | 0.0081 | 0.1565 |
| **UNL** | (848.99) | 11.25 | 309.43 | 0.9188 | 5.8156 |
| **KFC** | 178.09 | 0.31 | 49.68 | 0.0065 | 0.1406 |
| **AFC** | 526.44 | (1.15) | 35.02 | 0.3591 | 1.2965 |

Above table shows that the regression results between Market Price Per Share and Earning Per Share of Last Year of the sample companies. As the result shows that the regression coefficient (b) of SCBL, NABIL, BNL, UNL, KFC and AFC is 0.38, 59.07, 1.23, 11.25, 0.31 and (1.15) respectively. In case of SCBL b is 0.38 that indicates that one rupee increase in last dividend leads to an average about Rs.0.38 increases in MPS, holding other variable constant. In case of NABIL b is 59.07 that indicates that one rupee increase in last dividend leads to an average about Rs.59.07 increases in MPS, holding other variable constant. In case BNL b is 1.23 that indicates that one rupee increase in last dividend leads to an average about Rs.1.23 increases in MPS, holding other variable constant. In case of UNL b is 11.25 that indicates that one rupee increase in last dividend leads to an average about Rs.11.25 increase in MPS, holding other variable constant. In case of KFC b is 0.31 that indicates that one rupee increase in last dividend leads to an average about Rs.0.67 increase in MPS, holding other variable constant. In case of AFC b is -1.15 that indicates that one rupee increase in last dividend leads to an average about Rs.1.15 decreases in MPS, holding other variable constant.

In case of SCBL, the coefficient of determination $r^2$ is 0.3120, which indicate that only 31.20% of the variation of MPS is explained by explanatory variables EPS(t-1). .The remaining 68.8% variation is due to other factors. The standard error predicts the value of MPS based on EPS(t-1). The calculated value‘t’ is 1.1664, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance or it indicated that the variable in the population are uncorrelated.

In case of NABIL, the coefficient of determination $r^2$ is 0.2856 which indicate that only 28.56% of the variation of MPS is explained by explanatory variables EPS(t-1). .The remaining 71.44% variation is due to other factors. The standard error predicts the value of MPS based on EPS(t-1). The calculated value‘t’ is 1.0951, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance and it can be concluded that the variable in the population are uncorrelated.

In case of BNL, the coefficient of determination $r^2$ is 0.0081, which indicate that only 0.81% of the variation of MPS is explained by explanatory variables EPS(t-1). .The remaining 99.19% variation is due to other factors. The standard error predicts the value of MPS based on EPS(t-1). The calculated value‘t’ is 0.1565, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance and it can be concluded that the variable are uncorrelated in the population.

In case of UNL, the coefficient of determination $r^2$ is 0.9188, which indicate that only 91.88% of the variation of MPS is explained by explanatory variables EPS(t-1). .The remaining 8.12% variation is due to other factors. The standard error predicts the value of MPS based on EPS(t-1). The calculated value‘t’ is 5.8156, which is more than that of tabulated value 2.776. So, it is statistically significant at 5% level of significance and it can be concluded that the variable are correlated in the population.

In case of AFC, the coefficient of determination $r^2$ is 0.3591, which indicate that only 35.91% of the variation of MPS is explained by explanatory

variables EPS(t-1). .The remaining 64.01% variation is due to other factors. The standard error predicts the value of MPS based on EPS(t-1). The calculated value‘t’ is 1.2965, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance and it can be concluded that the variable are uncorrelated in the population.

In case of KFC, the coefficient of determination $r^2$ is 0.0065, which indicate that only 0.65% of the variation of MPS is explained by explanatory variables EPS(t-1). .The remaining 99.35% variation is due to other factors. The standard error predicts the value of MPS based on EPS(t-1). The calculated value‘t’ is 0.1406, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance and it can be concluded that the variable are uncorrelated in the population.

**C. Dependent Variable DPS and Independent Variable EPS.**

Regression Equation: DPSt = a + b EPSt

**Table no. 4.13**

**Regression of DPS on EPSt**

| Name of the Company | Constant (a) | Regression Coefficient(b) | Standard Error(SE) | $r^2$ | t- value |
|---|---|---|---|---|---|
| **SCBL** | 69.49 | 0.37 | 10.67 | 0.3589 | 1.2959 |
| **NABIL** | (11.60) | 0.90 | 26.28 | 0.4286 | 1.5001 |
| **BNL** | 10.40 | (0.28) | 2.44 | 0.4025 | 1.8391 |
| **UNL** | 102.43 | 0.66 | 113.29 | 0.2278 | 0.9408 |
| **KFC** | 15.23 | 0.29 | 27.37 | 0.0547 | 0.4166 |
| **AFC** | 5.75 | 0.07 | 7.76 | 0.0129 | 0.1980 |

Above table shows that the regression results between Dividend per Share and Earning per Share of the sample companies. As the result shows that the regression coefficient (b) of SCBL, NABIL, BNL, UNL, KFC and AFC is 0.37, 0.90, (0.28), 0.66, 0.29 and 0.07 respectively. In case of SCBL b is 0.37 that indicates that one rupee increase in EPS leads to an average about Rs.0.37 increases in DPS, holding other variable constant. In case of NABIL b is 0.90

that indicates that one rupee increase in EPS leads to an average about Rs.0.90 increases in DPS, holding other variable constant. In case BNL b is -0.28 that indicates that one rupee increase in EPS leads to an average about Rs.1.23 decreases in DPS, holding other variable constant. In case of UNL b is 0.66 that indicates that one rupee increase in EPS leads to an average about Rs.0.66 increase in DPS, holding other variable constant. In case of KFC b is 0.29 that indicates that one rupee increase in EPS leads to an average about Rs.0.29 increase in DPS, holding other variable constant. In case of AFC b is 0.07 that indicates that one rupee increase in EPS leads to an average about Rs.0.07 decreases in DPS, holding other variable constant.

In case of SCBL, the coefficient of determination $r^2$ is 0.3589, which indicate that only 35.89% of the variation of DPS is explained by explanatory variables EPS. .The remaining 64.11% variation is due to other factors. The standard error predicts the value of DPS based on EPS. The calculated value‘t’ is 1.2959, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance or it indicated that the variable in the population are uncorrelated.

Likewise in the case of NABIL, the coefficient of determination $r^2$ is 0.4286, which indicate that only 42.86% of the variation of DPS is explained by explanatory variables EPS. .The remaining 35.89% variation is due to other factors. The standard error predicts the value of DPS based on EPS. The calculated value ‘t’ is 1.5001, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance or it indicated that the variable in the population are uncorrelated.

Again, in the case of BNL, the coefficient of determination $r^2$ is 0.4025, which indicate that only 40.25% of the variation of DPS is explained by explanatory variables EPS. .The remaining 59.75% variation is due to other factors. The standard error predicts the value of DPS based on EPS. The calculated value‘t’ is 1.8391, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance or it indicated that the variable in the population are uncorrelated.

In the case of UNL, the coefficient of determination $r^2$ is 0.2278, which indicate that only 22.88% of the variation of DPS is explained by explanatory variables EPS. .The remaining 77.12% variation is due to other factors. The standard error predicts the value of DPS based on EPS. The calculated value‘t’ is 0.9408, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance or it indicated that the variable in the population are uncorrelated.

In the case of AFC, the coefficient of determination $r^2$ is 0.0547, which indicate that only 5.47% of the variation of DPS is explained by explanatory variables EPS. .The remaining 94.53% variation is due to other factors. The standard error predicts the value of DPS based on EPS. The calculated value‘t’ is 0.4166, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance or it indicated that the variable in the population are uncorrelated.

In the same way the coefficient of determination $r^2$ of KFC is 0.0129, which indicate that only 1.29% of the variation of DPS is explained by explanatory variables EPS. .The remaining 98.71% variation is due to other factors. The standard error predicts the value of DPS based on EPS. The calculated value ‘t’ is 0.198, which is less than that of tabulated value 2.776. So, it is not statistically significant at 5% level of significance or it indicated that the variable in the population are uncorrelated.

#### 4.2.2.2 Multiple Regression Analysis:

In multiple regression analysis, two or more independent variables are used to estimate the value of dependent variables whereas in the simple regression analysis single independent variable is used to estimate the values of a dependent variable. Multiple regression analysis helps to know relative movement in the variable.

To estimate the relationship between dividends and stock prices, the theoretical statement of the model is that the price of the stock would depend

on dividend per share of last year and earning per share of last year. The theoretical statements farmed above may be stated as,

$MPSt = f (DPS_{(t-1),} EPS_{(t-1)})$

Where,

$MPS_t$ = Price of stock in time 't'

$DPS_{(t-1)}$ = Dividend Per Share of Last Year

$EPS_{(t-1)}$ = Earning Per Share of Last Year

Regression Equation $MPS_t = a + b_1 DPS_{(t-1)} + b_2 EPS_{(t-1)}$

**Table no. 4.14**

**Regression of $MPS_t$ on $DPS_{(t-1)}$ and $EPS_{(t-1)}$**

| Name of the Company | Constant (a) | Regression Coefficient($b_1$) | Regression Coefficient($b_2$) | Standard Error(SEE) | $r^2$ | F-Ratio |
|---|---|---|---|---|---|---|
| **SCBL** | -8781.33 | 184.65 | -65.03 | 2003.77 | 0.5851 | 8.46 |
| **NABIL** | 604.64 | 76.78 | -40.64 | 1121.35 | 0.7983 | 23.76 |
| **BNL** | 305.63 | 18.73 | 6.5 | 213.79 | 0.8200 | 6.13 |
| **UNL** | -762.87 | -0.85 | 11.81 | 816.52 | 0.9256 | 7.47 |
| **AFC** | 533.82 | -0.48 | -1.01 | 39.65 | 0.4419 | 4.75 |
| **KFC** | 198.99 | -3.63 | 0.54 | 41.01 | 0.3261 | 2.90 |

Table value of $f_{0.05(2,12)} = 3.89$

In case of SCBL, regression coefficient $b_1$ for $DPS_{(t-1)}$ is 184.65 which indicates that one rupee increase in $DPS_{(t-1)}$ leads to an average of Rs.184.65 increase in MPS holding $EPS_{(t-1)}$ constant. Similarly, the regression coefficient $b_2$ for $EPS_{(t-1)}$ is -65.03 which indicates that one rupee increase in $EPS_{(t-1)}$ resulted in Rs.65.03 decrease in MPS holding $DPS_{(t-1)}$ variable constant . There is negative relation between MPS and $EPS_{(t-1)}$. The adjusted value of $r^2$ is 0.5851, which shows that the 58.51% variation in MPS is explained by variation in explained by variation in $DPS_{(t-1)}$ and $EPS_{(t-1)}$ . And the rest 41.49% variation is due to other factors. Since calculated value of $f_{0.05(2,12)}$ (8.46) is more than the table value of $f_{0.05(2,12)}$ (i.e. 3.89) the regression equation is significant at 5% level of significance. The standard

error of estimate measures the variability of the actual value from its predicated values.

In case of NABIL, regression coefficient $b_1$ for DPS $_{(t-1)}$ is 76.78 which indicates that one rupee increase in $DPS_{(t-1)}$ leads to an average of Rs.76.78 increase in MPS holding $EPS_{(t-1)}$ constant. Similarly, the regression coefficient $b_2$ for $EPS_{(t-1)}$ is -40.64 which indicates that one rupee increase in $EPS_{(t-1)}$ resulted in Rs.40.64 decrease in MPS holding $DPS_{(t-1)}$ variable constant . There is negative relation between MPS and $EPS_{(t-1)}$. The adjusted value of $r^2$ is 0.7983, which shows that the 79.83% variation in MPS is explained by variation in explained by variation in $DPS_{(t-1)}$ and $EPS_{(t-1)}$ . And the rest 20.17% variation is due to other factors. Since calculated value of $f_{0.05(2,12)}$ (23.76) is more than the table value of $f_{0.05(2,12)}$ (i.e. 3.89) the regression equation is significant at 5% level of significance. The standard error of estimate measures the variability of the actual value from its predicated values.

In case of BNL, regression coefficient $b_1$ for DPS $_{(t-1)}$ is 18.73 which indicates that one rupee increase in $DPS_{(t-1)}$ leads to an average of Rs.18.73 increase in MPS holding $EPS_{(t-1)}$ constant. Similarly, the regression coefficient $b_2$ for $EPS_{(t-1)}$ is 65 which indicates that one rupee increase in $EPS_{(t-1)}$ resulted in Rs.65.00 increase in MPS holding $DPS_{(t-1)}$ variable constant . The adjusted value of $r^2$ is 0.82, which shows that the 82.00% variation in MPS is explained by variation in explained by variation in $DPS_{(t-1)}$ and $EPS_{(t-1)}$ . And the rest 18.00% variation is due to other factors. Since calculated value of $f_{0.05(2,12)}$ (6.13) is more than the table value of $f_{0.05(2,12)}$ (i.e. 3.89) the regression equation is significant at 5% level of significance. The standard error of estimate measures the variability of the actual value from its predicated values.

In case of UNL, regression coefficient $b_1$ for DPS $_{(t-1)}$ is -0.8407 which indicates that one rupee increase in $DPS_{(t-1)}$ leads to an average of Rs.0.8407 decrease in MPS holding $EPS_{(t-1)}$ constant. Similarly, the regression coefficient $b_2$ for $EPS_{(t-1)}$ is 11.81 which indicates that one rupee increase in

$EPS_{(t-1)}$ resulted in Rs.11.81 increase in MPS holding $DPS_{(t-1)}$ variable constant . There is negative relation between MPS and $DPS_{(t-1)}$. The adjusted value of $r^2$ is 0.9256, which shows that the 92.56% variation in MPS is explained by variation in explained by variation in $DPS_{(t-1)}$ and $EPS_{(t-1)}$ . And the rest 7.44% variation is due to other factors. Since calculated value of $f_{0.05(2,12)}$ (7.47) is more than the table value of $f_{0.05(2,12)}$ (i.e. 3.89) the regression equation is significant at 5% level of significance. The standard error of estimate measures the variability of the actual value from its predicated values.

In case of KFC, regression coefficient $b_1$ for $DPS_{(t-1)}$ is -3.63 which indicates that one rupee increase in $DPS_{(t-1)}$ leads to an average of Rs.3.63 decrease in MPS holding $EPS_{(t-1)}$ constant. Similarly, the regression coefficient $b_2$ for $EPS_{(t-1)}$ is 0.54 which indicates that one rupee increase in $EPS_{(t-1)}$ resulted in Rs.0.54 increase in MPS holding $DPS_{(t-1)}$ variable constant . There is negative relation between MPS and $DPS_{(t-1)}$. The adjusted value of $r^2$ is 0.32691, which shows that the 32.91% variation in MPS is explained by variation in explained by variation in $DPS_{(t-1)}$ and $EPS_{(t-1)}$ . And the rest 67.07% variation is due to other factors. Since calculated value of $f_{0.05(2,12)}$ (2.90) is less than the table value of $f_{0.05(2,12)}$ (i.e. 3.89) the regression equation is not significant at 5% level of significance. The standard error of estimate measures the variability of the actual value from its predicated values.

In case of AFC, regression coefficient $b_1$ for $DPS_{(t-1)}$ is -0.48 which indicates that one rupee increase in $DPS_{(t-1)}$ leads to an average of Rs.0.48 decrease in MPS holding $EPS_{(t-1)}$ constant. Similarly, the regression coefficient $b_2$ for $EPS_{(t-1)}$ is -1.01 which indicates that one rupee increase in $EPS_{(t-1)}$ resulted in Rs.1.01 decrease in MPS holding $DPS_{(t-1)}$ variable constant . There is negative relation between MPS and $EPS_{(t-1)}$ and MPS and $DPS_{(t-1)}$. The adjusted value of $r^2$ is 0.0.4419, which shows that the 44.19% variation in MPS is explained by variation in explained by variation in $DPS_{(t-1)}$ and $EPS_{(t-1)}$ . And the rest 55.81% variation is due to other factors. Since calculated value of $f_{0.05(2,12)}$ (4.75) is more than the table value of $f_{0.05(2,12)}$ (i.e. 3.89) the regression equation is significant at 5% level of significance.

### 4.2.3 Testing of Hypothesis

A quantitative statement about the population parameter is called a hypothesis. In other words, it is an assumption that is made about the population parameter and then its validity is tested. It may or may not be found valid on verification.

Testing of hypothesis is one of the most important aspects of the theory of decision making .It is consists of decision rules required for drawing probabilistic inference about the population parameters. It often involves deciding at any given point of time whether a given population parameter is the same as before, as claimed or has changed.

#### 4.2.3.1 t-test

##### 4.2.3.1.1 First Hypothesis

Null Hypothesis:

$H_o$: 1. There is no significant difference between mean DPS of SCBL and NABIL.

2. There is no significant difference between mean DPR of SCBL and NABIL.

i.e. Ho: $\mu_1 = \mu_2$

Alternative Hypothesis:

$H_1$: 1. There is significant difference between mean DPS of SCBL and NABIL.

2. There is significant difference between mean DPR of SCBL and NABIL.

i.e. H1: $\mu_1 \neq \mu_2$

**Table 4.15**
**Result of t-test between the Banks**

| Variables | Calculated Value(t) | Tabulated Value $\lvert t_{0.05(4)} \rvert$ | Null Hypothesis | Inference |
|---|---|---|---|---|
| Average DPS | 2.89 | 2.776 | Reject | Significant |
| Average DPR | 0.53 | 2.776 | Accept | Insignificant |

*Source: Appendix III& VI*

Above table shows that the calculated average DPS t-value is more than that of tabulated value at 5% level of significance and 4 degree of freedom. So, Null Hypothesis ($H_o$) is rejected and alternate Hypothesis ($H_1$) is accepted. That means there is a significant difference between the mean DPS of SCBL and NABIL .It is found that SCBL has higher average DPS than that of NABIL.

Likewise, the table shows that the calculated average DPR t-value is less than that of tabulated value at 5% level of significance and between the 4 degree of freedom. So, Null Hypothesis ($H_o$) is accepted and alternate Hypothesis ($H_1$) is rejected. That means there is no significant difference between the mean of SCBL and NABIL .It is found that SCBL has higher DPR than that of NABIL.

#### 4.2.3.1.2 Second Hypothesis

Null Hypothesis:

$H_o$: 1. There is no significant difference between mean DPS of BNL and UNL.

2. There is no significant difference between mean DPR of BNL and UNL.

i.e. Ho: $\mu_1 = \mu_2$

Alternative Hypothesis:

$H_1$: 1. There is significant difference between mean DPS of BNL and UNL.

2. There is significant difference between mean DPR of SCBL and NABIL.

i.e. H1: $\mu_1 \neq \mu_2$

**Table 4.16**

**Result of t-test between the Manufacturing Companies**

| Variables | Calculated Value(t) | Tabulated Value $\lvert t_{0.05(4)} \rvert$ | Null Hypothesis | Inference |
|---|---|---|---|---|
| Average DPS | 0.39 | 2.776 | Accept | Significant |
| Average DPR | 0.96 | 2.776 | Accept | Significant |

*Source: Appendix IV& VII*

Above table shows that the calculated average DPS t-value is less than that of tabulated value at 5% level of significance and 4 degree of freedom. So, Null Hypothesis ($H_o$) is accepted and alternate Hypothesis ($H_1$) is rejected. That means there is no significant difference between the mean DPS of UNL and BNL .It is found that UNL has higher average DPS than that of BNL.

Likewise, the table shows that the calculated average DPR t-value is less than that of tabulated value at 5% level of significance and between the 4 degree of freedom. So, Null Hypothesis ($H_o$) is accepted and alternate Hypothesis ($H_1$) is rejected. That means there is no significant difference between the mean of SCBL and NABIL .It is found that the average DPR of UNL is higher than that of BNL.

#### 4.2.3.1.3 Third Hypothesis

Null Hypothesis:

$H_o$: 1. There is no significant difference between mean DPS of AFC and KFC.

2. There is no significant difference between mean DPR of AFC and KFC.

i.e. $H_o: \mu_1 = \mu_2$

Alternative Hypothesis:

$H_1$: 1. There is significant difference between mean DPS of AFC and KFC.

2. There is significant difference between mean DPR of AFC and KFC.

i.e. $H_1: \mu_1 \neq \mu_2$

**Table 4.17**

**Result of t-test between the Finance Companies**

| Variables | Calculated Value(t) | Tabulated Value $\lvert t_{0.05(4)} \rvert$ | Null Hypothesis | Inference |
|---|---|---|---|---|
| Average DPS | 2.15 | 2.776 | Accept | Significant |
| Average DPR | 1.61 | 2.776 | Accept | Significant |

*Source: Appendix V & VIII*

Above table shows that the calculated average DPS t-value is less than that of tabulated value at 5% level of significance and 4 degree of freedom. So, Null Hypothesis ($H_o$) is accepted and alternate Hypothesis ($H_1$) is rejected. That means there is no significant difference between the mean DPS of AFC and KFC .It is found that the average of AFC is more than that of KFC.

Likewise, the table shows that the calculated average DPR t-value is less than that of tabulated value at 5% level of significance and between the 4 degree of freedom. So, Null Hypothesis ($H_o$) is accepted and alternate Hypothesis ($H_1$) is rejected. That means there is no significant difference between the mean DPR of AFC and KFC .It is found that the average DPR of AFC is higher than that of KFC.

### 4.2.3.2 Analysis of Variance ANOVA:

**A. Analysis of Variance of DPS:**

**Table no. 4.18**

**Pooled Average of DPS**

| Year | Pooled Average | | |
|---|---|---|---|
| | **Banks** | **Manufacturing Companies** | **Finance Companies** |
| 2060/61 | 87.5 | 52.5 | 6 |
| 2061/62 | 95.0 | 200.0 | 26.8 |
| 2062/63 | 112.5 | 125.0 | 36.8 |
| 2063/64 | 135.0 | 137.5 | 10.3 |
| 2064/65 | 115.0 | 165.0 | 18.0 |

*Source: Appendix II*

Null Hypothesis:

$H_o$: There is no significant difference among the DPS of Banking Sector, manufacturing Sector, and Finance Sector.

i.e. $H_0: \mu_1 = \mu_2 = \mu_3$

Alternative Hypothesis:

$H_1$ : There is no significant difference among the DPS of Banking Sector, manufacturing Sector, and Finance Sector.

i.e. $H_1: \mu_1 \neq \mu_2 \neq \mu_3$

Computation of test statistic: F

Sum of the squares of variation between samples (SSC) = 37126.81

Sum of the squares of variation within samples (SSE) = 14039.16

Total Sum of Squares (SST) = 51165.97

**Table no. 4.19**
**ANOVA of DPS**

| Sources of Variation | Sum of Squares(SS) | Degree of Freedom(d.f.) | Mean Sum of Squares (MSS) | F-Ratio |
|---|---|---|---|---|
| **Between Samples** | SSC=37126.81 | k-1=3-1 =2 | MSC=SSC/(k-1) =18563.41 | F=MSC/MSE =15.87 |
| **Within Samples** | SSE=14039.16 | n-k=15-3 =12 | MSE=SSE/(n-k) =1169.93 | |
| **Total** | SST=51165.97 | n-1=15-1 =14 | | |

Tabulated $F_{0.05\,(2,\,12)} = 3.89$

**Decision:** Since the tabulated value of F at 5% level of significance for d.f. (2, 12) d.f. is less then calculated value. Null Hypothesis ($H_0$) is rejected. That means there is significant difference among the DPS of Banks, Manufacturing Companies and Finance Companies at 5% level of significance .It indicates that the DPS of the different sectors are not similar in pattern. The average DPS of Banks is more than that of manufacturing sector and financial institutes.

**Analysis of Variance of EPS**

**Table no. 4.20**

**Pooled Average of EPS**

| Year | Pooled Average | | |
|---|---|---|---|
| | **Banks** | **Manufacturing Companies** | **Finance Companies** |
| 2060/61 | 118.08 | 89.13 | 50.51 |
| 2061/62 | 124.32 | 121.65 | 34.37 |
| 2062/63 | 152.52 | 146.71 | 41.97 |
| 2063/64 | 150.22 | 155.33 | 46.14 |
| 2064/65 | 120.11 | 194.68 | 21.14 |

*Source: Appendix II*

Null Hypothesis:

Ho: There is no significant difference among the EPS of Banking Sector, Manufacturing Sector, and Finance Sector.

i.e. $H_0: \mu_1 = \mu_2 = \mu_3$

Alternative Hypothesis:

$H_1$: There is no significant difference among the EPS of Banking Sector, Manufacturing Sector, and Finance Sector.

i.e. $H1: \mu_1 \neq \mu_2 \neq \mu_3$

Computation of test statistic: F

Sum of the squares of variation between samples (SSC) = 28100.86

Sum of the squares of variation within samples (SSE) = 32366.18

Total Sum of Squares (SST) = 60467.04

**Table no. 4.21**

**ANOVA of EPS**

| Sources of Variation | Sum of Squares(SS) | Degree of Freedom(d.f.) | Mean Sum of Squares (MSS) | F-Ratio |
|---|---|---|---|---|
| **Between Samples** | SSC=28100.86 | k-1=3-1 =2 | MSC=SSC/(k-1) =14050.43 | F=MSC/MSE =5.21 |
| **Within Samples** | SSE=32366.18 | n-k=15-3 =12 | MSE=SSE/(n-k) =2697.18 | |
| **Total** | SST=60467.04 | n-1=15-1 =14 | | |

Tabulated $F_{0.05\,(2,\,12)} = 3.89$

**Decision:** Since the tabulated value of F at 5% level of significance for (2, 12) d.f. is less then calculated value. Null Hypothesis ($H_0$) is rejected. That means there is significant difference among the EPS of Banks, Manufacturing Companies and Finance Companies at 5% level of significance .It indicates that the EPS of the different sectors are not similar in pattern. The average EPS of banking sector is found more than that of manufacturing sector and financial sector.

**B. Analysis of Variance of DPR:**

**Table no. 4.22**

**Pooled Average of DPR**

| **Year** | **Pooled Average** | | |
|---|---|---|---|
| | **Banks** | **Manufacturing Companies** | **Finance Companies** |
| 2060/61 | 73.41 | 42.56 | 8.94 |
| 2061/62 | 75.10 | 97.32 | 39.89 |
| 2062/63 | 72.70 | 48.32 | 77.16 |
| 2063/64 | 89.90 | 48.13 | 26.99 |
| 2064/65 | 95.44 | 54.51 | 84.75 |

*Source: Appendix II*

Null Hypothesis:

Ho: There is no significant difference among the DPR of Banking Sector, Manufacturing Sector, and Finance Sector.

i.e. H0: $\mu_1 = \mu_2 = \mu_3$

Alternative Hypothesis:

$H_1$: There is no significant difference among the DPR of Banking Sector, Manufacturing Sector, and Finance Sector.

i.e. $H_1: \mu_1 \neq \mu_2 \neq \mu_3$

Computation of test statistic: F

Sum of the squares of variation between samples (SSC) = 2980.64

Sum of the squares of variation within samples (SSE) = 6668.88

Total Sum of Squares (SST) = 9649.52

**Table no. 4. 23**

**ANOVA of DPR**

| Sources of Variation | Sum of Squares(SS) | Degree of Freedom(d.f.) | Mean Sum of Squares (MSS) | F-Ratio |
|---|---|---|---|---|
| **Between Samples** | SSC=2980.64 | k-1=3-1 =2 | MSC=SSC/(k-1) =1490.32 | F=MSC/MSE =2.67 |
| **Within Samples** | SSE=6668.88 | n-k=15-3 =12 | MSE=SSE/(n-k) =555.74 | |
| **Total** | SST=9649.52 | n-1=15-1 =14 | | |

Tabulated $F_{0.05\,(2,\,12)} = 3.89$

**Decision:** Since the tabulated value of F at 5% level of significance for (2, 12) d.f. is more then calculated value. Null Hypothesis ($H_0$) is accepted. That means there is no significant difference among the DPR of Banks, Manufacturing

Companies and Finance Companies at 5% level of significance .It indicates that the DPR of the different sectors are similar in pattern. The average DPR of banking sector is found more than that of manufacturing sector and financial sector.

**C. Analysis of Variance of MPS:**

**Table no. 4.24**

**Pooled Average of MPS**

| Year | Pooled Average | | |
|---|---|---|---|
| | **Banks** | **Manufacturing Companies** | **Finance Companies** |
| 2060/61 | 1372.5 | 1100 | 327.50 |
| 2061/62 | 1925.0 | 1380 | 327.50 |
| 2062/63 | 3007.5 | 1630 | 384.50 |
| 2063/64 | 5475.0 | 2500 | 320.00 |
| 2064/65 | 6052.0 | 3400 | 351.50 |

*Source: Appendix II*

Null Hypothesis:

$H_o$: There is no significant difference among the MPS of Banking Sector, Manufacturing Sector, and Finance Sector

i.e. $H_0: \mu_1 = \mu_2 = \mu_3$

Alternative Hypothesis:

$H_o$: There is no significant difference among the MPS of Banking Sector, Manufacturing Sector, and Finance Sector.

i.e. $H_1: \mu_1 \neq \mu_2 \neq \mu_3$

Computation of test statistic: F

Sum of the squares of variation between samples (SSC) = 25996246

Sum of the squares of variation within samples (SSE) = 21287203

Total Sum of Squares (SST) = 47283451

**Table no. 4. 25**

**ANOVA of MPS**

| Sources of Variation | Sum of Squares(SS) | Degree of Freedom(d.f.) | Mean Sum of Squares (MSS) | F-Ratio |
|---|---|---|---|---|
| **Between Samples** | SSC=25996246 | k-1=3-1 =2 | MSC=SSC/(k-1) =12998123 | F=MSC/MSE =7.33 |
| **Within Samples** | SSE=21287203 | n-k=15-3 =12 | MSE=SSE/(n-k) =1773934 | |
| **Total** | SST=47283451 | n-1=15-1 =14 | | |

Tabulated $F_{0.05\,(2,\,12)} = 3.89$

**Decision:** Since the tabulated value of F at 5% level of significance for (2, 12) d.f. is less then calculated value. Null Hypothesis ($H_0$) is rejected. That means there is significant difference among the MPS of Banks, Manufacturing Companies and Finance Companies at 5% level of significance .It indicates that the MPS of the different sectors are not in similar in pattern. The average MPS of banking sector is found more than that of manufacturing sector and financial sector.

**Major findings**

The major findings obtained from the secondary data analysis are stated as follows:

1. EPS of banking sector is in increasing trend. EPS of BNL is fluctuating trend while that of UNL is in increasing trend , EPS of financial companies is also in fluctuating trend.
2. The mean EPS of SCBL, NABIL, BNL, UNL, KFC and AFC is 152.36, 114.54, 29.64, 253.36, 20.18 & 54.47 respectively. It shows that the highest EPS mean is in UNL and lowest is in KFC.
3. Profitability of common shareholders investment is better in SCBL , NABIL and UNL then other companies as they are found maintain their EPS above industry average.
4. Dividend payment is not regular and attractive phenomena in Nepalese listed companie, although some companies give regular dividend. UNL has the highest DPS of 270 among six listed companies, NABIL, SCBL and UNL have been found to maintain its DPS above the industry average. It indicates that they pay higher dividend as compared to other companies and it creates positive attitude of the investors towards the banking sector which conseequently helps to increase the maretk value of the share. UNL has the highest DPS so market value of the share of DPS is higher. But BNL has lowest DPS of Rs. 2 only. The coefficient of variation of BNL which indicate relative dispersion, is highest i.e. 122.47 but SCBL has lowest of only 8.09%. The DPS of two manufacture companies is highest and lowest. So the more value of share of the manufacture companies may be different. This clearly indicates that companies do not have any stable and consistent dividend practice.
5. Average market price per share of SCBL, NABIL, BNL, UNL, KFL and AFC is Rs. 4119, 3014, 581.8, 2002, 189.20 and 460.20 respectively mean MPS of SCBL is greater than other companies. Higher market price creates the positive attitude of the investors towards the bank, which consequently attracts the investor to invest in such high valued shares.
6. The average highest DPR is 10845 of UNL followed by SCBL with Rs. 83.26. There is high fluctuation in DPS, BNL, as depicted by CV of 122.14% whereas lowest fluctuation CV in is 9.64% of SCBL.

7. When dividend amount is considered as return on market price of share, the highest is 14.8% of UNL and lowest of NBL is 0.34. The fluctuation of DYR of BNL is 123.06% in DYR of NABIL is 41.36%. It is found that the company with foreign investment is paying high cash dividend. The dividend amount paid by the listed companies appears very low which is less then the interest provided by commercial banks in fixed deposit. The average DYR is 5.73% only.
8. UNL has the lowest fluctuation in the price currently paid by the market for each rupee reported by EPS followed by BNL. The KFC has the highest fluctuation in this regard as depicated by P/E ratio.
9. The earning yield of UNL ranks the highest (i.e. 13.36) while the earning yield of SCBL is the lowest (i.e. 4.76) and of the companies lies in between these two.
10. When EPS and DPS are taken into consideration, it is found that positive correlation exists in all companies except BNL, BNL has negative correlation between EPS and DPS whereas it shows KFC has low degree of positive correlation between EPS and DPS. The correlation of NABIL is certain and the remaining companies correlation is uncertain.
11. It is found that EPS is the strong variable that determine the DPS for NABIL.
12. When EPS and MPS are taken into consideration, it is found that positive correlation exists in all companies. The correlation of all the companies is uncertain since r <6PE.
13. The study of impact of cash dividend on market price of share reveled that dividend per share has positive impact on market price of share of SCBL, NABIL, BNL and UNL i.e. 0.92 which means 92% of change in MPS is affected by change in last dividend and the rest 8% is due to unknown factor.
14. It is found that EPS is the strong variables that determines the MPS for NABIL.
15. When dividend of last year and MPS taken into consideration it is found that the regression coefficient ($\sigma$) is positive in SCBL, NABIL and BNL but regression coefficient is negative on rest three companies. Which indicate the increase in last dividend lead on increase in current MPs in SCBL, NABIL and BNL.

16. With respect to regression analysis of MPS on last EPS, the regression coefficient ($\sigma$) of AFC is negative and the rest other companies has positive regression coefficient. Which indicate the increase in last EPS cause increase in MPS of all the companies except AFC.
17. When DPS and EPS are taken into consideration, it is found that regression coefficient of beta of all companies is positive exceot BNL, which means EPS cause the decrease in DPS of BNL.
18. The multiple regression analysis of MPS and last EPS and last dividend shows that MPS and last DPS has positive relationship holding EPS constant in three sample companies (BNL, UNL and ICFC). Whereas MPS and last EPS has positive relationship holding last DPS constant in all companies expect in SCBL, NABIL and AFC. The F-statistic is significant on five companies (SCBL, NABIL, BNL, UNL AFC) and not significant for KFC.
19. T-test calculation at 5% level of significance, point out that there is a significant difference between the DPS and there is not significant between the DPR of banking sector (NABIL and SCBL). Likewise there is significant difference between the DPS and DPR of manufacturing sector (UNL and BNL). Again there is no significant difference between DPR and DPS of AFC and KFC.
20. ANOVA of DPS indicates that there is significant difference among the DPS of banks, manufacturing companies and financial companies at 5% level of significance. That means, DPS of these sectors are not similar in pattern.
21. ANOVA of EPS indicates that there is significant difference among the EPS of banks, manufacturing companies and finance companies of 5% level of significance. That means, of these sectors are not similar in pattern.
22. ANOVA of DPR indicates that there is no significant difference between the DPR of banks, manufacturing companies and financial companies at 5% level of significance. That means DPR of these sector are similar in pattern.

ANOVA of MPS indicates that there is significant difference among the MPS of banks, manufacturing companies and finance companies at 5% level of significance. That means of MPS of these sector are not similar in pattern.

# CHAPTER V
# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1 Summary

Dividend policy is one of the three major decisions of the financial management. The dividend refers to that portion of the firm's net earnings, which is paid out to the shareholders as a return for their investments. The dividend decision affects the operation, and prosperity of the organization. To attract the new investors and to maintain the existing ones, dividend can be used as an effective tool. Dividend implies paying earning to the equity share holders and theories of dividend policy differ, some prefer residual theory that conveys passive residual earning available for payment whereas MM hypothesis insists on dividend irrelevance in the sense that dividend policy does not affect the stock price (which makes dividend decision, irrelevance). There are others who argue that dividend policy does affect value due to uncertainty factor. Many factors affect the dividend payment depending upon the investors' need and preference on one hand and the financing need of the financial institution to the potential investment on the other hand. The dividend decision, in one hand affects the company's structure. In other hand it has an information value to the investors. The impacts on share price are one another influence of dividend decisions. Since 1984, when the government of Nepal has adopted economic liberalization and open market policy, many JV Banks, finance companies and insurance companies are established in Nepal. These institution got opportunity and appropriate environment to expand their activities, it is because the initially established financial institutions are unable to supply credit needs and meet the market expectation that market activities towards the growth position. The stockholders have a high desire and expectation that market price of share will be higher than net worth and getting high percentage of dividend from earnings. So, distributing dividend to the shareholders is effective way to achieve the trust of investors and encourage them to invest in shares.

This study mainly aims the prevailing practices of listed companies regarding dividend payment. The study is mainly focused to access the dividend practices of different banks, finance companies and insurance companies. Instability of dividend and haphazard payout ratio is the most common practice of Nepalese companies. Companies do not adequately maintain cash balance for dividend payment. So, it

covers some specific objectives to find out the relationship between other financial indicators and also to find out the appropriate dividend policies for different companies.Shareholders have high expectation that market prices of shares will be significantly higher than net worth. The companies invested by foreigners are paying more attractive dividend than the companies promoted by the indigenous promoters of Nepal. The study of relationship between the dividend and stock prices have been accomplished by collecting and calculating the earning per share, dividend per share, dividend payout ratio, dividend yield, earning yield and price earning ratio. To make the research reliable, many more analysis are conducted to find out appropriate relationship between dividend and other variables, which affects the dividend. The consistency of dividend distribution of different companies is also analyzed by using statistical tools. The relationship also statistically tested at 5% level of significance. This study has been primarily focused to evaluate the resultant impacts of dividend on market price of share. The study is mainly based on the secondary data of six companies which are listed in NEPSE. They are categorized in three groups, banks manufacturing companies and finance companies. These groups represent their own sectors. The last five years data from FY 2060/061 to 2064/65 are taken for study. They reliability of conclusions made in this study depends upon the accuracy of secondary data. Three major aspect of the study are discussed in this chapter. At the beginning all the findings have been made summarized and same conclusions have been drawn up to the basis of findings. An attempt is also made to present the gap and the factors to cause those gaps. This chapter is very important in the sense that.

i. It shows the result what was observed during the research.
ii. It concludes the findings in an understandable form and
iii. it provides clues of suggestions to the concerned authorities as well as practitioners and academicians.

The recommendation is presented in the last part of this chapter considering the major findings and gaps fund. The recommendations presented will certainly be milestone to improve existing condition in this field.

## 5.2 Conclusion

1. The primary objectives of investors investing in stocks are to earn dividend. But the earning of shareholders can be dividend as dividend gain and capital gain.
2. High payout statistic the dividend need whereas increase in market price of stock increases capital gain. Therefore, the firm should make a proper balance between dividend distribution and retention of earning.
3. In Nepal, only a few listed companies have been paying regular dividends to their shareholders. Further companies have not been following stable dividend payout policy. Above major findings led this study conclude that the earning and dividend payout of banks are comparatively high than finance and manufacturing companies and it is said to be satisfactory in Nepalese context.
4. On the other hand, the dividend payout ratio of listed companies in Nepal has not been able to distribute fair dividends. None of these companies have well defined and appropriate policy regarding dividend payment.
5. The insignificant relationship between DPS and other variables indicates that dividend policy of all these companies is not better. This study rests to conclude that the cash dividend can't be said as a sole factor to affect price of share. But there are some other factors like earning power, bonus shares, information value of dividend decision etc. that also cause the share price fluctuation.

In an imperfect market mechanism like Nepalese Share Market, the security brokers, other market makers and the rumors they spray in the market have also significant role in share price fluctuation.

## 5.3 Recommendation and Suggestion

Although, this study is concerned with dividend practices of Nepalese Financial Institution, it may be appropriate to provide a package of suggestion in the light of major findings and conclusions. These recommendations may also have some repercussions, but there is no doubt of these measures to improve the existing conditions. The following suggestions are recommended for the problems on the issue of Dividend which are find out from the analysis of data.

**1) Applying strategic dividend policy**

There are different dividend policies i.e. stable dividends, constant payout, low regular plus extra policies etc.

**2) Considering the environment**

There are challenges and threats in front of the companies because of internal and external environment.

**3) Expansion of activities and mobilize the funds**

The market price is seen higher than dividend payment. The companies can solve the problem by raising the funds from market.

**4) Flow of Information**

Regular, simplified and adequate information must be provided by the companies.

**5) Options to the shareholders regarding form of dividend.**

There are only two form of dividend used in practice i.e., stock dividend & cash dividend.

**6) Legal rules and regulation**

The legal rules are not enough regarding to dividend. Binding legal rules with enough flexibility

**7) Balance activities**

MPS, DPS, EPS, fluctuates widely of the companies. To remove this problem companies need to make appropriate plan.

## Appendix I

## Basic Data Using Cash Dividend only

**BNL**

| Year | EPS (X) | DPS (Y) | MPS (Z) | DPR |
|---|---|---|---|---|
| 2060/061 | 25.36 | 5 | 700 | 19.72 |
| 2061/062 | 37.8 | 0 | 554 | 0 |
| 2062/063 | 34.76 | 0 | 635 | 0 |
| 2063/064 | 24.96 | 0 | 500 | 0 |
| 2064/065 | 25.63 | 5 | 520 | 19.72 |
| **Total** | **148.21** | **10** | **2909** | |

**UNL**

| Year | EPS (X) | DPS (Y) | MPS (Z) | DPR |
|---|---|---|---|---|
| 2060/061 | 152.9 | 100 | 1100 | 65.40 |
| 2061/062 | 205.5 | 400 | 1380 | 194.65 |
| 2062/063 | 258.7 | 250 | 1630 | 96.66 |
| 2063/064 | 285.7 | 275 | 2500 | 96.25 |
| 2064/065 | 364 | 325 | 3400 | 89.29 |
| **Total** | **1266.8** | **1350** | **10010** | |

**SCBNL**

| Year | EPS (X) | DPS (Y) | MPS (Z) | DPR |
|---|---|---|---|---|
| 2060/061 | 143.55 | 110 | 1745 | 76.63 |
| 2061/062 | 143.14 | 120 | 2345 | 83.83 |
| 2062/063 | 175.84 | 140 | 3775 | 79.62 |
| 2063/064 | 167.37 | 130 | 5900 | 77.67 |
| 2064/065 | 131.92 | 130 | 6830 | 98.54 |
| **Total** | **761.82** | **630** | **20595** | |

**NABIL**

| Year | EPS (X) | DPS (Y) | MPS (Z) | DPR |
|---|---|---|---|---|
| 2060/061 | 92.61 | 65 | 1000 | 70.19 |
| 2061/062 | 105.49 | 70 | 1505 | 66.36 |
| 2062/063 | 129.21 | 85 | 2240 | 65.75 |
| 2063/064 | 137.08 | 140 | 5050 | 102.13 |
| 2064/065 | 108.31 | 100 | 5275 | 92.33 |
| **Total** | **572.7** | **460** | **15070** | |

**AFC**

| Year | EPS (X) | DPS (Y) | MPS (Z) | DPR |
|---|---|---|---|---|
| 2060/061 | 67.17 | 12 | 420 | 17.87 |
| 2061/062 | 65.97 | 52.632 | 450 | 79.78 |
| 2062/063 | 65.97 | 63.158 | 431 | 95.74 |
| 2063/064 | 65.97 | 10.53 | 500 | 15.96 |
| 2064/065 | 22.25 | 21.05 | 500 | 94.01 |
| **Total** | **287.33** | **159.37** | **2301** | |

**KFC**

| Year | EPS (X) | DPS (Y) | MPS (Z) | DPR |
|---|---|---|---|---|
| 2060/061 | 33.85 | 0 | 235 | |
| 2061/062 | 2.77 | 0 | 205 | |
| 2062/063 | 17.97 | 10.527 | 138 | 58.58 |
| 2063/064 | 26.3 | 10 | 140 | 38.02 |
| 2064/065 | 20.03 | 15 | 203 | 74.89 |
| **Total** | **100.92** | **35.527** | **921** | |

## Appendix II

### Calculation of Sector wise pooled Average (DPS)

| Year | Banking Sector | | Pooled Average | Manu. Sector | | Pooled Average | Financial Sector | | Pooled Average |
|---|---|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | | BNL | UNL | | KFC | AFC | |
| 2060/61 | 110 | 65 | 87.5 | 5 | 100 | 52.5 | 0 | 12 | 6 |
| 2061/62 | 120 | 70 | 95 | 0 | 400 | 200 | 0 | 53.63 | 26.81 |
| 2062/63 | 140 | 85 | 112.5 | 0 | 250 | 125 | 10.53 | 63.16 | 36.84 |
| 2063/64 | 130 | 140 | 135 | 0 | 275 | 137.5 | 10 | 10.53 | 10.26 |
| 2064/65 | 130 | 100 | 115 | 5 | 325 | 165 | 15 | 21.05 | 18.02 |

### Calculation of Sector wise pooled Average (EPS)

| Year | Banking Sector | | Pooled Average | Manu. Sector | | Pooled Average | Financial Sector | | Pooled Average |
|---|---|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | | BNL | UNL | | KFC | AFC | |
| 2060/61 | 143.55 | 92.61 | 118.08 | 25.36 | 152.90 | 89.13 | 33.85 | 67.17 | 50.51 |
| 2061/62 | 143.14 | 105.49 | 124.31 | 37.80 | 205.50 | 121.65 | 2.77 | 65.97 | 34.37 |
| 2062/63 | 175.84 | 129.21 | 152.52 | 34.70 | 258.70 | 146.71 | 17.97 | 65.97 | 41.97 |
| 2063/64 | 167.37 | 137.08 | 152.22 | 24.96 | 285.70 | 155.33 | 26.30 | 65.97 | 46.13 |
| 2064/65 | 131.92 | 108.31 | 120.11 | 25.36 | 364.00 | 194.68 | 20.03 | 22.25 | 21.14 |

**Calculation of Sector wise pooled Average (MPS)**

| Year | Banking Sector | | Pooled Average | Manu. Sector | | Pooled Average | Financial Sector | | Pooled Average |
|---|---|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | | BNL | UNL | | KFC | AFC | |
| 2060/61 | 1745 | 1000 | 1372.5 | 700 | 1100 | 900 | 235 | 420 | 327.5 |
| 2061/62 | 2345 | 1505 | 1925 | 554 | 1380 | 967 | 205 | 450 | 327.5 |
| 2062/63 | 3775 | 2240 | 3007.5 | 635 | 1630 | 1132.5 | 138 | 431 | 284.5 |
| 2063/64 | 5900 | 5050 | 5475 | 500 | 2500 | 1500 | 140 | 500 | 320 |
| 2064/65 | 6830 | 5275 | 6052.5 | 520 | 3400 | 1960 | 203 | 500 | 351.5 |

**Calculation of Sector wise pooled Average (DPR)**

| Year | Banking Sector | | Pooled Average | Manu. Sector | | Pooled Average | Financial Sector | | Pooled Average |
|---|---|---|---|---|---|---|---|---|---|
| | SCBL | NABIL | | BNL | UNL | | KFC | AFC | |
| 2060/61 | 76.63 | 70.19 | 73.41 | 19.72 | 65.40 | 42.56 | - | 17.87 | 8.94 |
| 2061/62 | 83.83 | 66.36 | 75.10 | - | 134.65 | 97.32 | - | 79.78 | 39.89 |
| 2062/63 | 79.62 | 65.78 | 72.70 | - | 96.66 | 48.33 | 58.58 | 95.74 | 77.16 |
| 2063/64 | 77.67 | 102.13 | 89.90 | - | 96.25 | 48.13 | 38.02 | 15.96 | 26.99 |
| 2064/65 | 98.34 | 92.33 | 95.44 | 19.72 | 89.25 | 54.51 | 74.89 | 94.61 | 84.75 |

## Appendix III
## Computation of t-test with Banks

**DPS**

| SCBL (X) | NABIL (Y) | Diff. (D) = x-y |
|---|---|---|
| 110 | 65 | 45 |
| 120 | 70 | 50 |
| 140 | 85 | 55 |
| 130 | 140 | -10 |
| 130 | 100 | 30 |
| 630 | 460 | ΣD = 170 |

$\Sigma D = 170$

$\Sigma D^2 = 8550$ ($\Sigma D^2 = D_1^2 + D_2^2 + D_3^2 + D_4^2 + D_5^2$)

$\overline{D} = 34$

$n = 5$

$$s = \sqrt{\frac{\Sigma D2 - n(\overline{D})^2}{n-1}} = 26.32$$

$$S E(\overline{D}) = \frac{S}{\sqrt{n}} = 11.77$$

$$t = \frac{\overline{D}}{SE(\overline{D})} = 2.89$$

## Appendix IV:
## Computation of t-test with Manufacturing Companies

**DPS**

| BNL (X) | UNL (Y) | Diff. (D) = x-y |
|---|---|---|
| 5 | 100 | -95 |
| 0 | 140 | -140 |
| 0 | 250 | -250 |
| 0 | 275 | -275 |
| 5 | 325 | -320 |
| | | ΣD = -1080 |

$\Sigma D = -1080$

$\Sigma D^2 = 269150$ ($\Sigma D^2 = D_1^2 + D_2^2 + D_3^2 + D_4^2 + D_5^2$)

$\overline{D} = -216$

$n = 5$

$$s = \sqrt{\frac{\Sigma D2 - n(\overline{D})^2}{n-1}} = 1235.03$$

$$S E(\overline{D}) = \frac{S}{\sqrt{n}} = 552.32$$

$$t = \frac{\overline{D}}{SE(\overline{D})} = -0.39$$

## Appendix V:
## Computation of t-test with Finance Co.

**DPS**

| AFC (X) | KFC(Y) | Diff. (D) = x-y |
|---|---|---|
| 12 | - | 12 |
| 52.63 | - | 52.63 |
| 63.19 | 10.527 | 52.66 |
| 10.53 | 10 | 0.53 |
| 21.05 | 15 | 6.02 |
| | | 123.84 |

$\Sigma D = 123.84$

$\Sigma D^2 = 5725.71$ ($\Sigma D^2 = D_1^2 + D_2^2 + D_3^2 + D_4^2 + D_5^2$)

$\overline{D} = 24.77$

$n = 5$

$$s = \sqrt{\frac{\Sigma D2 - n(\overline{D})^2}{n-1}} = 25.87$$

$$S E(\overline{D}) = \frac{S}{\sqrt{n}} = 11.53$$

$$t = \frac{\overline{D}}{SE(\overline{D})} = 2.15$$

**Appendix VI**

**DPS**

| SCBL(X) | NABIL (Y) | Diff. (D) = x-y |
|---|---|---|
| 76.63 | 70.19 | 6.44 |
| 83.83 | 66.36 | 17.47 |
| 79.62 | 65.78 | 13.84 |
| 77.67 | 102.13 | -24.46 |
| 98.54 | 92.33 | 6.21 |
| | | $\Sigma D = 19.50$ |

$\Sigma D = 16.58$

$\Sigma D^2 = 1175.08$ ($\Sigma D^2 = D_1^2 + D_2^2 + D_3^2 + D_4^2 + D_5^2$)

$\overline{D} = 3.90$

$n = 5$

$$s = \sqrt{\frac{\Sigma D2 - n(\overline{D})^2}{n-1}} = 16.58$$

$$S E(\overline{D}) = \frac{S}{\sqrt{n}} = 7.41$$

$$t = \frac{\overline{D}}{SE(\overline{D})} = 0.53$$

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## Appendix VII

**DPR**

| BNL (X) | UNL (Y) | Diff. (D) = x-y |
|---|---|---|
| 19.72 | 65.40 | -45.68 |
| - | 194.65 | -194.65 |
| - | 96.66 | -96.66 |
| - | 96.25 | -96.25 |
| 19.72 | 89.29 | -69.57 |
| | | ΣD = - 502.77 |

$\Sigma D = -502.77$

$\Sigma D^2 = 4839.98$ ($\Sigma D^2 = D_1^2 + D_2^2 + D_3^2 + D_4^2 + D_5^2$)

$\overline{D} = -100.55$

$n = 5$

$s = \sqrt{\frac{\Sigma D2 - n(\overline{D})^2}{n-1}} = 235.35$

$S E(\overline{D}) = \frac{S}{\sqrt{n}} = 105.25$

$t = \frac{\overline{D}}{SE(\overline{D})} = 0.96$-

## Appendix VIII

**DPR**

| AFC(X) | KFC (Y) | Diff. (D) = x-y |
|---|---|---|
| 17.87 | - | 17.87 |
| 79.80 | - | 79.80 |
| 95.74 | 58.58 | 37.16 |
| 15.96 | 38.08 | -22.12 |
| 94.61 | 74.89 | 19.72 |
| | | ΣD = 132.43 |

$\Sigma D = 132.43$

$\Sigma D^2 = 8946.42$ ($\Sigma D^2 = D_1^2 + D_2^2 + D_3^2 + D_4^2 + D_5^2$)

$\overline{D} = 26.48$

$n = 5$

$s = \sqrt{\frac{\Sigma D2 - n(\overline{D})^2}{n-1}} = 36.88$

$S E(\overline{D}) = \frac{S}{\sqrt{n}} = 16.49$

$t = \frac{\overline{D}}{SE(\overline{D})} = 1.61$

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