DIVIDEND PRACTICES OF SELECTED COMMERCIAL BANKS AND FINANCE COMPANIES OF NEPAL

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RECOMMENDATION

This is to certify that the thesis

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has been prepared as approved by this Department in the prescribed format of Faculty of Management. This thesis is forwarded for examination.

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VIVA-VOCE SHEET

We have conducted the viva-voce examination of the thesis presented by

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and found the thesis to be the original work of the student written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment for

Master's Degree in Business Studies (M.B.S.)

Viva-Voce Committee

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DECLARATION

I, hereby, declare that the work reported in this thesis entitled **"DIVIDEND PRACTICES OF SELECTED COMMERCIAL BANKS AND FINANCE COMPANIES OF NEPAL"** submitted to the Central Department of Management, Tribhuvan University, is my original work. It is done in the form of partial fulfillment of the requirements for the Master of Business Studies (MBS) under the supervision and guidance of Prof. Dr. Santosh Raj Paudyal.

January, 2013

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ABBREVIATIONS

ATM.	=	Automatic Teller Machine
BFL	=	Butwal Finance Limited
DPR	=	Dividend Payout Ratio
DPS	=	Dividend per Share
DY	=	Divend Yield
EBL	=	Everest Bank Limited
EPS	=	Earning per Share
etc.	=	Etcetra
EY	=	Earning Yield
i.e.	=	That
KBL	=	Kumari Bank Limited
MBS	=	Master of Business Studies
MFL	=	Mahalaxmi Finance Limited
MPPS	=	Market Price per Share
NEPSE	=	Nepal Stock Exchange
NRB	=	Nepal Rastra Bank
NWPS	=	Net Worth per Share
PNB.	=	Punjab National Banks
POS	=	Point of Sales
r	=	Correlation Coefficient
Rs.	=	Rupees
SBL	=	Siddhartha Bank Limited
T.U.	=	Tribhuvan University
UFL	=	United Finance Limited

CHAPTER I

INTRODUCTION

1.1 General Background

Dividend refers to that portion of a firm's net earning which are paid out to the shareholders. Whether dividends have an influential on the value of the firm is the most critical question in dividend policy. If dividends are irrelevant, the firm should retain earnings for investment opportunities. If there are not sufficient investment opportunities providing expected return in excess of the required return, the unused funds should be paid out as dividends. Dividend is the most inspiring factor for the investment on shares of the company is thus desirable form the stockholder's point of view. In one hand, the payment of dividend makes the investors happy. But in the other hand the payment of dividend decreases the internal financing required for making investment in golden opportunities. This will hamper the growth of the firm, which in turn affects the value of the stock.

Business firms use the retained earnings to provide funds to the firm for long-term growth; we call it as internal financing source. Dividend is return on the investment of common stock holders. By a dividend policy we mean some kind of consistent approaches to the distribution versus retention decision rather than making the decision on the purely adhoc basis from period to period (Hunt Person, Veilliam Charlos and Donaldson, 1972). Likewise, dividend policy must be considered in relation to the overall financing decision. In practice, net earnings always may not be appropriate measure of the ability of the firm to pay dividend, that's why, what and how much it is desirable to pay dividend is always a controversial topic because shareholders expect higher dividend but companies ensure towards setting aside funds for maximizing the shareholders wealth.

Shareholders make investment in equity capital with the expectation of making earning in the form of dividend or capital gains. Thus, shareholders wealth can increase thorough either dividend or capital gain. Once the company earns a profit, it should decide on what to do with the profit. It could be continued to retain the profit within the company, or it could pay out the profit to the owners of the company in the

form of dividend. Dividends are payment made to stockholders form a firm's earning in return to their investment. Dividend policy is to determine the amount of earnings to be distributed to shareholders and the amount to be retained or reinvestment.

It is often said that the concept of the banking has been developed from the ancient history with an effort of ancient goldsmiths who developed the practice of storing people's gold and other valuables. Under such an arrangement, the depositors would leave their gold with goldsmiths for safekeeping. Whenever the receipts were presented, the depositors would get back their gold and other valuables after paying a small amount as interests (fee) for safekeeping and serving (Gautam, 2010)

Financial institutions have definitely contributed and played a gigantic role for domestic resource mobilization and economic development to build up the confidence of the businessmen for promoting their business and industrialists for encouraging opening new business venture. It maintains confidence for various segments and extends credit to people.

After the restoration of democracy in 1990 AD, Nepal has implemented liberal economic policy. As a result, many more companies are established in different sectors such as industrial, tourism, transportation, trade and mostly in financial sector who contribute to build up economy of the country. Nepal is a country trying to develop its economy through global trend and cooperation with developed countries.

The banking concepts and activities started in Nepal after the establishment of Nepal Bank Limited in 1937. A central bank (Nepal Rastra Bank) was established to regulate the banking activities and monetary policy of the nation. Than after, it was realized that the commercial bank has its own role and contribution in the economic development. It is the source of economic development; it maintains economic confidence of various segments and extends credit to people. So, another commercial bank, Rastriya Banijya Bank was established in 1966. (http://www.nrb.org.np)

Capital market plays an important role in the economics development in nation. But, in Nepal, the capital market is very small and developing slowly with disorganized way. The Nepalese company can't generate profit that are established and operated on public sector. The government is unable to receive dividends from public enterprises for several years.

In the global perspective, joint ventures are the modes of trading through partnership among the nations and also a form of negotiation between various groups of industries and traders to achieve competitive advantages. Nepal's reform efforts in the financial sectors, begun in 1980's, when Nepal Rastra Bank eased entry restrictions and amendment of the Commercial Bank Act 1974. As a result, two banks namely, Nepal Arab Bank Ltd. and Standard Chartered Bank Nepal Ltd came into operation prior to 1990s. In 1992, Nepal Rastra Bank adopted liberal attitude in permitting commercial banks to open. Than after, the financial liberalization really took place. (http://www.nrb.org.np)

Finance companies include captive financing subsidiaries of non financial corporation, general finance consumer and business finance companies, leasing companies, factors all of which are non depository financial institutions involved primarily in extending credit to businesses and consumers. The organization set up of financial company is new to Nepal. Finance companies are the effective investments for mobilizing public, private and external financial resources and canalizing them into productive areas of short-term loan and long-term loan in different enterprising activities. The newly adopted liberal economic policy of government has given more emphasis to the private sector and institutional investors to invest in Nepal which has been considered as encouraging factor of sustainable growth under these facilities many finance companies have been established. Mainly they collect deposit and provide loans by mobilizing scattered saving of different sectors of the economy for the economic development.

Public corporations in Nepal are still not able to generate sufficient earnings for dividend payment. Corporation like Nepal Oil Corporation and Nepal Electricity Authority are suffering from loss, so their total effort is focused on minimization of loss through better utilization of capital.

The joint venture banks in Nepal have brought new hope for productive mobilization of funds according to their new trends of dividend distribution among foreign joint venture banks.

There are Thirty two commercial banks listed in security board in the Nepal Stock Exchange Out of which, only three commercial banks were taken as samples (http:// www.nepalstock.com).

They are given as below:

1. Kumari Bank Limited.
2. Everest Bank Limited.
3. Siddhartha Bank Limited.

1.1.1 A Brief Introduction of Sample Banks and Finance Companies.

1. Kumari Bank Limited, came into existence as the fifteenth commercial bank of Nepal by starting its banking operations from Chaitra 21, 2057 B.S (April 03, 2001) with an objective of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up capital of Rs. 1,485,000,000 of which 70% is contributed from promoters and remaining from public. Kumari Bank Ltd has been providing wide - range of modern banking services through 28 points of representations located in various urban and semi urban part of the country, 19 outside and 9 inside the valley. The bank is pioneer in providing some of the latest / lucrative banking services like E-Banking, Kumari Mobile Cash and SMS Banking services in Nepal.

The bank always focus on building sound technology driven internal system to cater the changing needs of the customers that enhance high comfort and value. The adoption of modern Globus Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions in any branch regardless of having account with particular branch. Similarly the bank has been providing 365 days banking facilities, extended banking hours till 7 PM in the evening, Utility Bill Payment Services, Inward and Outward Remittance services, Online remit service and verious other banking services. Visa Electron Debit Card, which is accessible in entire VISA linked ATMs (including 30 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also added convenience to the customers. The bank has been able to get recognition as an innovative and fast growing institution striving to enhance customer value and satisfaction by backing transparent business practice, professional management, corporate governance and total quality management as

the organizational mission. The key focus of the bank is always center on serving unfulfilled needs of all classes of customers located in various parts of the country by offering modern and competitive banking products and services in their door step. The bank always prioritizes the priorities of the valued customers.

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

With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies in different countries, which enable quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar,SaudiArabia,Malaysia,Singapore and U.K. Bank has set up its representative offices at New Delhi (India) to support Nepalese citizen remitting money and advising banking related services.

Punjab National Bank (PNB), is the joint venture partner (holding 20% equity in the bank) of Everest Bank Limited, which is the largest nationalized bank in India. With its presence virtually in all the important centers at India, Punjab National Bank offers a wide variety of banking services which include corporate and personal banking, industrial finance, agricultural finance, financing of trade and international banking. Among the clients of the Bank are Indian conglomerates, medium and small industrial units, exporters, non-resident Indians and multinational companies. The large presence and vast resource base have helped the bank to build strong links with trade and industries.

Recognizing the value of offerings a complete range of services, we have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rental), Home Equity Loan, Vehicle Loan, Loan Against Share, Loan Against Life Insurance Policy and Loan for Professionals.

3. Siddhartha Bank Limited (SBL) commenced operations in 2002. The Bank is promoted by a group of highly reputed Nepalese dignitaries having wide commercial experience. We provide a full range of commercial banking services through our 39 branches across the Nepal.

The environment of Nepalese banking sector is undergoing a rapid transformation. With liberalization in financial markets and integration of domestic market with external markets, bank operations have become more complex and dynamic. We are geared to meet the challenges and keep abreast with the changes.

The Vision statement of the Bank describes the core values and purposes that guide the Bank as well as an envisioned future. Fundamentally, in all dealings SBL earnestly believes in transparency, financial soundness, efficiency and better technology.

SBL's vision is to be financially sound, operationally efficient and keep abreast with technological developments. The Bank firmly believes customer focus is a core value, shareholder prosperity is a prime priority, employee growth is a commitment and economic welfare is a sincere concern. The Bank wants to be a leader among the banks of its age in Nepal by fulfilling the interest of the stakeholders and also aims to provide total customer satisfaction by way of offering innovative product and by developing and retaining highly motivated and committed staff. It directs all its efforts to move ahead with increasing profit.

Although, there are many finance companies actively running in the country (approx. 79), there are 55 finance companies listed in the Nepal Stock Exchange and Security Board, only three finance companies are selected as samples. (http:// www.nepalstock.com) They are following

1. Butwal Finance Ltd.
2. United Finance Co. Ltd.
2. Mahalaxmi Finance Co. Ltd.

A short description of these sample finance companies is:

1. Butwal Finance Limited: Butwal Finance Company came into existence in the year 2055 B.S. with the view to accelerate the pace of economic development through active participation in socio-economic activities Ever since the government of Nepal adopted the market oriented liberal economic policy for sustainable development, poverty alleviation, regional balance and resolving unemployment problem of the country, the involvement of private sectors in economic activities have increased substantially. The private companies play significant role to the economic progress of the country.

Since its inception, BFL has made its earnest efforts to contribute to the country by undertaking various integrated economic projects BFL aims to achieve excellence in financial sectors by rendering services to all levels of people for their individual as well as the overall development of the nation. BFL strives to provide its professional financial services know how to prosper in today's competitive environment. To achieve its goal, BFL has assembled the team of young and dynamic professional to look after the day to day operation. BFL is fully equipped with sophisticated modern equipment including computers and other necessary office equipment in order to serve people according to their interest at much faster and reliable way. In order to cope with the present difficult situation of the country, BFL is planning to introduce security programmes to ensure security provisions for our customers. These security programmes will include - insurance policy, recruitment of security guards, extension of communication services, visual aids system etc.

The process of forwarding the nation in the path of development by economic liberation and market oriented policies, Butwal Finance LTD has been established Butwal, the heart of Lumbini Zone, with the purpose to make the country financially strong and empowered and also to turn the nation into modernization (http://www.nrb.org.np).

2. United Finance Limited: United Finance Limited (UFL) is a leading Consumer Finance Company in Nepal with excellent asset quality and strong growth potential. The company, promoted by the Chaudhary Group - the largest conglomerate in Nepal was established in 1992 as per the Companies Act of Nepal 1985. The main objective of the company is to mobilize scattered savings into the consumer financing sector. The major promoters and shareholders of the company are the Chaudhary Group and

Morang Auto Works. These groups among themselves hold 60% of the shares in the company with the remaining balance of 40% shares held by the general public.

The shares of the company are actively traded at the Nepal Stock Exchange (NEPSE) and have been categorized in Category "A" by NEPSE for the last Five years. The company operates from its Head Office in Durbar Marg, Kathmandu.

Within a short span of its establishment, the company has been able to establish itself as one of the leading financial institutions in the country. The company's vision is to become the number one finance company in terms of consumer financing. With an aim to provide highly professional banking & financial services, United Finance Ltd. has a team of young and dynamic professionals to run the Company. The experience gained in various sectors of finance over the years has enabled United Finance Ltd. to serve its customers in most reliable and efficient manner (http://www.nrb.org.np).

3. Mahalaxmi Finance Limited: Mahalaxmi Finance Company Ltd. was established in 1990 under the company act 1964. The objective behind the establishment is to collect scattered savings and to deploy it in productive work through various schemes. The company was listed in the securities board in 1998. The head office of this finance company is situated at Birgunj. As on 2067/068 the total issued and paid up capital was Nrs. 60 Millions. (http://www.nrb.org.np)

1.2 Statement of the Problem

Dividend refers to that portion of a firm's net earning which are paid out to the shareholders. Whether dividends have an influential on the value of the firm is the most critical question in dividend policy. If dividends are irrelevant, the firm should retain earnings for investment opportunities. If there are not sufficient investment opportunities providing expected returns in excess of the required return, the unused funds should be paid out as dividends. Dividend is the most inspiring factor for the investment on shares of the company is thus desirable form the stockholder's point of view. In one hand the payment of dividend makes the investors happy. But in the other hand the payment of dividend decreases the internal financing required or making investment in golden opportunities. This will hamper the growth of the firm, which in turn affects the value of the stock. Earnings are also treated as financing sources of the firm. The firm retains the earning; its impact can be seen in many factors such as decreased leverage ratio, expansion of activities and increase in profit

in succeeding years, whereas if firm pays dividend, it may need to raise capital through capital that will affect on risk characteristics of the firm. Therefore there are many dimensions to be considered on dividend theories, policies and practices. Shareholders make investment in equity capital with the expectation of making earnings.

Dividend distribution does not match with earnings of Commercial Banks Secondly; there is no proper relationship between dividend and quoted market price of shares. It is affected by the various government rules and regulation for the declaration and distribution of dividend in operation of banking transaction so there is no limitation for the identification of dividend policy in the banking sector specifically. Capital may be raised through debenture, which ultimately affects the risk of the firm. However, dividend is the most important factor, which reflects the healthy position of the company.

Following are the major problems that have been identified for the purpose of the study-:

a. Does the dividend policy affect the market price of commercial banks and finance companies?
b. Are all Nepalese Commercial Banks and financing companies have uniform practice in dividend distribution?
c. Is there any consistent relationship between dividend practices and other financial variables?

1.3 Objective of the Study

The main objective of the study is to analyze the dividend practices of commercial banks & finance companies with a view to suggest maximize the shareholders return, i.e. value of their investment is maximized. Beside this, following specific objectives have been made:

a. To study the relationship of dividend with market price per share and net worth among the selected commercial banks and finance companies.
b. To compare earnings and dividend patterns of commercial banks and finance companies.
c. To identify the determinants of the price of stock and dividend per stock.

1.4 Significance of the Study

The term dividend is defined as a return form investment in equity shares. So dividend is important factor for investment while investing in equity shares. This study helpful to investor to take rational decision like where to invest, how to invest, what portfolio should be made to obtain maximum profit from their investment? When a new company floats shareholders through capital market, larger numbers of people gathers to apply for owner's certificate. It indicates people's expectation on higher return of investment in shares. In Nepalese context, most of investors are investing in the stock without adequate knowledge of the company and performance and dividend policies. This study helps to aware the Nepalese investors. This study is useful for the firm's perspective too. They know the investor objective's form this study. There are basically two types of objective one is receiving dividend and another is receiving capital gain. Knowing the objective of investor they can develop their plans and policies accordingly. Basically this study is conducted to help the investor while investing in share capital. So that they can make correct decision at right time about the influence of dividend in market price of share and make investment.

1.5 Limitations of the Study

The limitations of the study are as follows:

a) Data are collected from secondary sources. Therefore analysis and interpretation are dependent on the availability and accuracy of secondary data.
b) This study covers four fiscal year periods i.e. from 2007/08 to 2010/11.
c) Limited time and resources are also constraints.
d) Only three banks and three finance companies are taken for samples.

1.6 Organization of the Study

The study has been organized into five chapters, each devoted to some aspects of the study of corporate dividend practices in Nepal. The titles of each of these chapters are as follows:

Chapter-I: Introduction: Chapter deals with the introductory part of the study which include background of the study, statement of the problem, objective of the study, significance and limitations of the study.

Chapter-II: Review of literature: This chapter deals with review of the different literature in regard to the theoretical analysis and review of book, articles and thesis related to this study.

Chapter-III: Research methodology: This chapter deals with research methodology used to carry out the research. It includes research design, population and sample, source and technique of data collection, data analysis tools.

Chapter-IV: Data presentation and analysis: This chapter is the main part of the study, which includes analysis and interpretation of the data using financial and statistical tools. Similarly, this chapter also includes the major findings of the study.

Chapter-V: Summary, conclusion and recommendations: Here summary and conclusions of the study and recommendations is presented.

Bibliography and appendices have been incorporated at the end of the chapters.

CHAPTER-II

REVIEW OF LITERATURE

Review of the Literature is undertaken in order to find out what works have already been conducted in the area of the concerned research problem. It promotes greater understanding of the problem under study, provides comparative data to evaluate and interpret the significance of the findings, and provides fruitful sources of hypothesis and conceptual framework. It is the chapter where a researcher reviews the books, journals, magazines or any other types of studies, which are related to his/her field of study.

2.1 Conceptual Framework

Dividends are payments made by a corporation to its shareholders. It is the portion of corporate profits paid out to stockholders. When a corporation earns a profit or surplus, that money can be put to two uses: it can either be reinvested in the business i.e. retained earnings, or it can be paid to the shareholders as a dividend. Many corporations retain a portion of their earnings and pay the remainder as dividend. Dividend policy refers to the guidelines that management uses in establishing portion of earning that is paid to the shareholders in the form of dividend. Dividend policy involves the decision to payout earnings or to retain them for reinvestment in the finance (Weston and Brigham, 2007).

How much dividend should be retained in business, is not a simple question. Since dividends would be more attractive to shareholders, one might not hesitate to say that dividends weight more than retention in the perception of the shareholders. But one might equally pressure that gross dividend would be reduced some what with an increase in net after tax dividend still available to shareholders and an increase in retained earnings for the corporation. It would be wise policy to maintain balance between shareholders interest with that of corporate growth from initially generated fund. If the company cannot get required rate of return by investing the funds in investment opportunities, it will be better to distribute funds so that the shareholders can invest in the more profitable project. This arguments of funds plugging back into the firms/companies in an analogy to the financial management's objective to increase the value of the shareholders wealth or well being and that well being can be

measured by dividend received but more accurate measure is the market value of the stock.

The most widely accepted objective of a firm is to maximize the value of the firm and to maximize shareholder wealth. In general, there are three types of financial decisions which might influence the value of a firm: investment decisions, financial decisions and dividend decisions. These three decisions are interdependent in a number of ways. The investments made by a firm determine the future earnings and future potential dividends; and dividend policy influences the amount of equity capital in a firm's capital structure and further influences the cost of capital. In making these interrelated decisions the goal is to maximize shareholder wealth.

Normally, dividends are paid in cash, which decrease the cash balance of firm. It affects the investor's attitude, financial structure, corporate liquidity and the flow of funds.

2.1.1. Forms of Dividend

In addition to the declaration of cash dividends, the firm has other options for distributing profits to shareholders. Other options might be the payment of the bonus shares or stock dividend. In this section, stock split is also discussed. The stock split is not a form of dividend; but its effects are similar to the effects of the bonus share.

I) Cash Dividend

Cash is a major form of dividend. Most of companies pay dividend in cash. A company should have enough cash in its bank account when cash dividends are declared. If the company follows a stable dividend policy, cash budget can be prepared for future to estimate the necessary funds, which would be helpful to meet the regular dividend payment of the company. The cash account and the reserve account of a company will be reduced when the cash dividend is paid. Thus, both the total assets and the net worth of the company are reduced when the cash dividend is distributed. The market price of the share drops, in most cases, by the amount of the cash dividend is distributed. The market price after cash dividend is calculated as follows:

Market price per share after cash dividend = Market price per share before cash dividend – Dividend per share

II) Stock Dividend (Bonus Shares) and Stock Split

A stock dividend occurs when the board of directors authorizes a distribution of common stock to existing shareholders. Stock dividend increase the number of outstanding shares of the firm's stock. Although stock dividends do not have a real value, forms pay stock dividend as a replacement for a supplement to cash dividend. There is no cash involved in a stock dividend. The bonus shares do not affect the wealth of the shareholders. In practice, however it benefits both, to shareholders and the company. The bonus share is also advantageous, to the company because it conserves the cash and that means paying dividend under financial difficulty and contractual restrictions. For shareholders, one of the advantages by receiving the bonus shares is the benefit regarding income tax. Normally, it is also an indication of higher profits in future. The declaration of the bonus issue may have a favorable psychological effect on shareholders.

Market price after stock dividend is calculated as follows:

Market price per share after stock dividend = $\frac{\text{Stock price before stock dividend}}{1+ \text{Stock dividend in fraction}}$

A stock split (also known as straight stock split) is essentially when a company increase the number of shares. In case of stock splits, a company may double, triple or quardruple the number of shares outstanding. The effect of stock split is an increase in the number of shares outsranding and a reduction at the par, of stated, value of the share but the total net worth of the company remain unchanged. The stock split does not involve any cash payment, only additional certificates representing new shares. The shareholders are given more number of shares, for the old shares they already own. In either case, each shareholder retains the same percentage of all outstanding stock that he or she had before the stock dividends or splits.

III) Bond Dividend

Bond dividend distributed its shareholders in form of bonds. Bond dividend assists to postpone the payment of cash. In other words, company declares dividend in the form of its own bond with a view to avoid cash outflows.

IV) Scrip Dividend

When earning of the company justifies dividends but the company's cash position is temporarily weak and does not permit cash dividend, it may declare dividend in the form of scrip. In this method of dividend, company issues and distributes transferable promissory notes to shareholders, which may be interest bearing or not. Scrip dividend is justified only when the company has really earned profit and has only to wait for the conversion of others current assets into cash in the course of operation.

V) Property Dividend

This involves a payment of assets/ property in any form other than cash. This form of dividend may be used when there are assets that are no longer necessary in operation of the business or in extraordinary circumstances. Companies owned products and securities of subsidiaries are the examples that have been paid as property dividend.

2.1.2 Corporate Share Repurchase

Corporate share repurchase may be an alternative to paying cash dividends. If a firm has excess cash, it may repurchase its own stock leaving fewer share outstanding the earning per share. It is essential to see why share repurchase may be viewed as an alternative to paying dividends. By repurchasing a stock, a company is reducing the number of shares outstanding. If the price- earning (P/ E) ratio does not change after the repurchase, the stock price must rise. "If a firm has excess cash and insufficient profitable investment opportunities to justify the use of these funds, it is in the shareholders interest to distribute the funds. The distribution can be accomplished either by the repurchase of stock or by paying the funds out in increased dividends" (Van Horne, 1997). It is thus corporate share repurchase is often viewed as an alternative to pay dividends. A repurchase is a signal that manager, who posses an insider's knowledge of the firm, are convinced that their stock is worth more than its current price. In addition, their conviction is strong enough to lead them to pay a premium for the stock despite the risk of dilution if they are wrong. Nepalese Company Act 1997, section 47 has prohibited company from purchasing its own shares. It states that no company shall repurchase its own share or supply loans against the security of its won share.

James C. Van Horne quoted that the equilibrium share repurchase price P*, a company should offer :

$$P^* = \frac{S \times P_c}{S - N}$$

Where,

S= Number of shares outstanding prior to the distribution.

P_C= Current market price per share prior to the distribution.

N= Number of share to be repurchased.

2.1.3 General Types of Dividend Policies

In general, the assumption behind the dividend policy being followed in the real world is that policy makers takes into account the factors that affect the values of the firm in whatever policies they make. But it is very difficult to say, which policy, among all those being adopted by firms, is correct and optimal. The dividend policy can be simply grouped into four general categories.

I) Constant Rupee Amount Policy

The stable rupee amount policy based on the payment of a fixed rupee dividend in each period. A number of companies follow the policy of paying fixed amount per share as dividend every period, without considering the fluctuation in the earning of the company. This policy does not imply that the dividend per share of dividend rate will never increased. When the company reach new level of earning and expects to maintain it the annual dividend per share may be increased. Investors who have dividends as the only source o their income prefer the constant dividend policy.

II) Constant Payout Ratio

The policy to distribute a certain percentage of profit every period is called payout ratio. The payout ratio is the ratio of dividend to profit. It ensure that dividends are paid when profits are earned, and avoided when it incure loses. There are many companies, which use a constant percentage of profit for dividend distribution. When a company uses a constant payout ratio, amount of dividend fluctuates as earning do.

III) Low Regular Plus Extras

Those companies whose stockholders prefer at least a certain amount of regular dividend plus extra dividend based on company performance mostly follow this type of policy. The policy of paying a low regular dividend plus extras is compromise between a stable dividend(of stable growth rate) and a constant payout rate. Management fixed a minimum regular dividend to be paid in any case unless a long run trend of losses is expected. The amount of extra dividend depends on the level of earnings. Thus, a total dividend each stockholder receives is based on a fixed amount plus a certain percentage of profit.

IV) Residual Dividend Policy

Residual dividend policy is based on the premise that investors prefer to have a firm retain and reinvest earning rather than pay them out in dividend. There are many factors, each noted before, which influence dividend policy. However, among all earnings and investment opportunities are considered as determining factors in the residual dividend policy. It is the outcome of belief that investors are better off in reinvesting company profits and they prefer so. If the expected return on the reinvestment is higher than what individual investors can realize on their own, it is to the shareholders advantage to first invest profits in those projects that promise higher profit and than distribute only the leftovers as dividends.

The residual dividend policy states that profit should be used first in all profitable investment plans, which reflect equal or higher rate of return than investor's opportunity rate of return. And if there is any profit left that could not be utilized, it should be distributed as dividends. The principle on which the theory is based is clear, that is, to maximize the benefits to shareholder be first undertaking investment plans and distributing dividends if there is any leftover.

The residual policy says that the dividends decisions should be such that (a) profits are reinvested to the optimum investment level that reflects maximum returns; (b) reinvestment of profits help maintain optimal capital structure; and (c) dividends are to be paid only if earnings are more than enough for investment plans. Thus, the residual policy is consistence with the basic objective of value maximization, places

more importance to overall value maximization than present dividend to shareholders. A firm using residual policy would follow these four steps:

- Determine the optimal capital budget.
- Determine the amount of equity required to finance the optimal capital budget given its target capital structure, recognizing that the fund used will constant of both equity and debt to preserve the optimal capital structure.
- To the extant possible, use retaind earnings to supply the equity required.
- Pay dividends only if more earning are available then are needed to support the optimal capital budget.

Although the residual theory of dividends appear to make further analysis of dividend policy unnecessary, it is indeed not clear that dividends are solely a means of disbursing excess funds. It would therefore be imprudent to conclude that there are no other implications of dividend policy, and so this study shall take a closer look at the relationship between dividend and value. (Pradhan, 1992)

2.2 Factors Affecting Dividend Policy

Many considerations may affect a firm's decision about its dividends, some of them are unique to that company, and some of the more general considerations are given subsequently.

2.2.1 Legal Rules

Certain legal rules may limit the amount of dividends a firm may pay. These legal constraints fall into two categories. First, statutory restrictions may prevent a company from paying dividends. Second specific limitations, which is vary by state. Generally a corporation do not pay dividend at following condition.

- If the firm's liabilities exceed its assets.
- If the amount of the dividend exceeds the accumulated profits (retained earnings)
- If the dividends are being paid from capital invested in the firm. Another type of legal restriction is unique to each firm and result from restriction in debt and preferred stock contracts.

2.2.2 Liquidity Position

The cash/bank balances of the firm influences its ability to pay dividends. A firm may have sufficient retained earnings, but if they are invested in fixed assets, cash may not be available to make dividend payment. Thus, the company must have adequate cash available as well as retained earning to pay dividends.

2.2.3 Restrictions in Debt Contracts

Restrictions in debt contracts may specify that dividends may be paid only out of earnings generated after singing the loan agreement and only when net working capital is above a specified amount. Also, preferred dividends take precedence to common stock dividends.

2.2.4 Shareholders Preferences

Shareholders may be interested either in dividend incomes or capital gains. Wealthy shareholder in a high income tax bracket may be interested in capital gains as against current dividends. A retired and old person, whose source of income is dividend, would like to get regular dividend.

In a closely held company, management usually knows the desires of shareholders. So, they can easily adopt a dividend policy that satisfies all shareholders. But in a widely held company, number of shareholders is very large and they have diverse desire regarding dividends want cash dividends, while other prefers bonus share.

2.2.5 Rate of Asset Expansion

A high rate of asset expansion creates a need to retain funds rather than to pay dividends.

2.2.6 Profit Rate

A high rate of profit on net worth makes it desirable to retain earnings rather than to pay than out if the investor will earn less on them.

2.2.7 Earnings stability

A firm that has a stable earnings tread will generally pay a larger portion of its earnings in dividends. If earnings fluctuate significantly, a larger amount of the profits may be retained to ensure that enough money is available for investment projects when needed.

2.2.8 Tax Position of Shareholders

The tax position of stockholders also affects dividend policy. Corporation owned by largely taxpayers in high income tax brackets tend toward lower dividend payout where as corporations owned by small investors tend toward higher dividend payout.

2.2.9 Need to repay debt

If the company has to repay the debt in the current year, it needs more fund and retains more profit paying less amount as dividend.

2.2.10 Control

For many small forms, and certain large ones, maintaining the controlling vote is very important. These owners would prefer the use of debt and retained profit to finance new investment rather than issue new stock. As a result dividend payout will be reduced.

2.3 Payment Procedure Followed by Companies

The actual payment procedure is of some importance, and the following is an outline of the payment sequence.

1. Declaration date

This is the day on which board of directors declares the dividend. At this time they set the amount of the dividend to be paid, the holder-of-record date and payment date.

2. Holder-of-record date

This is the date the company opens the ownership books to determine who will receive the dividend; the stockholders of record on this date receive the dividend. IN

that date, the company closes its stock transfer books and make up a list of the shareholders as of that day.

3. Ex-dividend date

The date when the right to the dividend leaves the stock is called the ex-dividend date. In this case, the ex-dividend date is four days before holder of record date. Therefore, if someone wants to receive the dividend, he/she must buy the stock four days before the holder of record day.

4. Payment date

This is the day when dividend checks are actually mailed to the holders of record.

2.4 Rules Regarding Dividend Practices in Nepal

Nothing had been explained about dividend practice in the Company Act 2021 of Nepal but after the establishment of Security Exchange Act 1983, Nepal Stock Exchange Limited safeguards the investor's interest. In 1997, Nepal Company Act has been amended where few legal provisions are made for dividend payment; some of them are as below:

Section 2 (m) states that stock dividends (Bonus share) means share issued in the forms of additional shares to shareholders by capitalizing the surplus from the profit or the reserve fund of the company. The term also denotes an increase in the paid up values of the shares after capitalizing surplus or reserve fund of a company. The term also denotes an increase in the paid up values of the shares after capitalizing surplus or reserve funds.

Section 47 has prevailed company from purchasing its own share. This section states that no company shall purchase its own shares or supply loans against the security of its own. Section 137, Bonus shares & sub section (i) states that the company must inform the office before issuing bonus shares under sub section (i), this may be done only according to special resolution passed by the general meeting

Section 140: Dividend and sub section of this section are as follows.

1. Except in the following circumstance, dividend shall be distributed among the shareholder with in 45 days from the date of decision to distribute them.

   - In case any law forbids the distribution of dividends.
   - In case the right to dividend is disputed.
   - In case dividends can not be distributed with in the time limit, mentioned above owing to circumstances beyond anyone control and without any Fulton the part of the company.

Sub-section (2): In case dividends are not distributed within the time limit as 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 the dividend shall be entitled to it.

The above rules indicate that Nepalese law prohibits repurchase of stock, which is against the theory of finance. The reason for this kind of provision is not known.

2.5 Empirical Reviews

Here, we are going to review of the major studies concerning dividends, behavioral aspect of dividend policy, and its effect upon value of enterprises and dividend's effect on market price of share.

Walter's Study

James E. Walter in his study concluded that the dividends are relevant to the value of firms (Walter, 1966). This argument is based on the company's reinvestment rate and cost of capital. In his study he suggests that dividend practice of firm affects its stock price. Walter's specially highlight that, there is significant relationship between internal rate of return and cost of capital, which is the main determining factor to retain its earnings or to distribute dividend to shareholder.

His study was based on the following assumptions

- ❖ All financing is done through retained earnings.
- ❖ The firm's business risk does not change i.e. 'r' and 'k' are constant.

- ❖ Earning and dividends remain constant.
- ❖ The firms have perpetual life.

Based on these assumptions, Prof. Walter develops a model to determine the market price per share as follows:

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

Where,

P= Market price per share

DPS= Dividend per share

EPS= Earnings per share

r= Internal rate of return

K= Cost of Capital

According to this study the given firm may have three probable conditions. They are:

Growth First, r > K

If the firm's internal rate of return is more than cost of capital, the relation between dividend and stock price is negative, i.e., more dividend leads to low stock price and vice-versa. This kind of firm is refereed to as growth firm. The zero dividend payout ratios would maximize the market value of stock for growth firm.

Normal Firms, r= K

If a firm has r= K, there is no relation between dividend and stock price, i.e., there is no role of dividend payout ratio for determining stock price. In this situation the firm is indifferent whether to retain its earnings or to pay dividends, such firms is called normal firm.

Declining Firms, r< K

If the firm's internal rate of return is less than the cost of capital, the relation between dividends and stock prices is positive, i.e., increase in payout ratio leads to increase in stock price. This type of firm referred to declining firm. Prof. Walter argues that 100% dividend payout would optimize the market price of share for such firm.

In this way, Walter's study conclude that dividends are negatively correlated with market value of stock for growth firm, positively correlated for declining firm and there is no relation between market value and dividend payout ratio for normal firm.

Gordon's Study

In 1962, Myron Gordon developed his theory. In his study he concluded that dividend policy of a firm affects its value (Gordon, 1962).

A firm having greater investment opportunities tends to increase retention ration by keeping low dividend payout ratio. In his dividend model, he assumes that the firm in all equity financed and also making the firm to rely on retained earnings without external financing. According to him, market value of the share is equal to present value of an infinite stream of dividend to be received by the share.

Basically his model based on the following assumptions:

- The firm is an all equity firm.
- Rate of return (r) and equity capitalization rate (k_e) are constant.
- The firm has perpetual life.
- Retention ratio and growth rate are constant.
- Equity capitalization (k_e) > growth rate (b × r or g).
- Tax does not exist.

From his assumption, Gordon develop following formula for finding out the market value per share,

$$P = \frac{E(1-b)}{Ke - b.r}$$

Where,

P= Market value per share

E= Earning per share

b= Retention ratio

K_e= Cost of capital or capitalization rate

r= Interest rate of return

b. r= growth rate (g)

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

According to his study, following facts are revealed.

- When the rate of return is greater than the discount rate (r > K), the price per share increase as the dividend payout ratio decrease.
- When the rate of return is equal to the discount rate (r = K), the price per share remains unchanged in response to variations in the dividend payout ratio.
- When the rate of return is less than the discount rate (r < K), the price per share increase as the dividend payout ratio increase.

Linter's Study

During 1956, Linter researches an important study of the behavioral aspect of dividend policy in the American context. From the tested of 28 companies in America partial adjustment model was developed by him. From this he concluded that a major portion of the dividend of a firm could be expressed in the following way (Linter 1956).

$Div_t^* = P^{EPS}_t$ ..... (i)

and $Div_t^* - Div_{t-1} = a+b\ (Div_t^* - Div_{t-1}) + e_t$ ..... (ii)

or $Div_t = a+b\ Div_t^{*+}\ (1-b)\ Div_{t-1} + e_t$ ..... (iii)

Where,

Div_t^*= firm's desired payment

Eps_t= Earning per share

P= targeted payout ratio

a= Constant relating to dividend growth

b= Adjusted factors relating to previous period's dividend and new desired level of dividend whose b<1.

The major findings of this study were.

- Firms generally think in terms of proportion of earning to be paid out.

- Investment requirements are not considered for modifying the pattern of dividend behavior.

- Firm generally have target payout ratio in view while determining change in dividend, or dividend rate.

Modigliani and Miller's Study

In 1961 Modigliani and Miller, for the first time in the history of finance argued that the dividend policy doesn't affect words. Divided has no effect on the stock price of the firm. In other words dividend has no effect on the stock price of the firm. They argued that the value of the firm depends upon the firm's earnings, which depends on its investment policy. That's why, MM theory; a firm's value is independent of dividend policy.

This study is based on the following assumption:

- The firm operates in perfect capital market.
- Investors are rational
- An investor can not affect the market price of a security.
- An absence of flotation costs on securities issued by the firms.
- These are no taxes.
- The firm has a fixed investment policy, which is not subject to change.
- Risk of uncertainty does not exist.

Considering the above critical assumption MM provide the proof in support of their arguments.

$$nP_0 = \left(\frac{P_1(n + \Delta n) - 1 + E}{1 + K_e} \right)$$

Where,

nP_o= Value of firm

P_1= Market price of the share at the end of year.

n= No. of additional share

Δn = No. of new shares at the end of the period.

I= Total investment

E= Total Earning of the firm.

By taking the above equation, it is formed that there is no role of dividend in estimating the value of firm. So Modigliani & Miller concluded that dividend policy has no effect on the share price or value of the firm.

Hence, MM theory concluded that, it seems that under the conditions of perfect capital market, rational investors, absence of tax discrimination between dividend income and capital appreciation, given the firm's investment policy, its dividend policy may have no influence on the market price of the share.

Van Horne & Mc-Donald's Study

Van Horne and Mc Donald conducted a more comprehensive study on dividend policy and new equity financing. The purpose of this study was to investigate the combined effect of dividend policy and new equity financing decision on the market value of the firm's common stocks. They explored some basic aspects of conceptual framework, and empirical tests were performed during year-end 1968, for two industries, using a well-known valuation modal. The required data were colleted from 86 electric utility firms included on the COMPUSTAT utility data tape and 39 firms in the electronics and component industries as listed on the Compute industry data tape (Van Horne & McDonald 1971).

They tested two regression models for the utilities industries.

First model was,

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

Where,

P_0/E_0=Closing market price in year 1 dividend by average EPS for year 0 and year 1

g= Expected growth rate, measured by the compound annual rate of growth in assets per share

D_0/E_0= Dividend payout, measured by cash dividend in year 1 dividend by earnings in year 1.

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

u= Error term

The Second Model was,

$$P_0/E_0 = a_0 + a_1 (g) + a_2 (D_0/E_0) + a_3 (Lev) + a_4 (F_a) + a_5 (F_b) + a_6 (F_c) + a7 (F_d) + U$$

Where,

F0, Fb, Fc and Fd are dummy variables corresponding to new issue ratio (NIR) groups A through D.

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

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

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

Where,

Lev= Financial risk, measured by long-term debt plus preferred stock dividend by net worth as of the end of year 1.

OR= Operating risk, measured by the standard error for the regression of operating earnings per share on time range of last 8 years, and rest are as in first model above.

By using these models or methodology, they compared the result obtained for the firms, which both pay dividends and engage in new equity financing with other firms in and industry. They concluded that for electric utility firms in 1968, share value was not adversely affected by new equity financing in the presence of cash dividends, except for those in the highest new issue group and it made new a mostly costly form

of financing than the retention of earning. They also indicated that the payment of dividends through excessive equity financing reduces share prices for electronics, electronic components industry, a significant relationship between new equity financing and value was not demonstrated.

Foong, Zakaria, and Tan's study

In 2007, Foong, zakaria and Tan investigated the relationship between individual stock returns with dividend yield, dividend stability and changes in dividend yield form 1992 to 2000 in the Malaysian Trading/Services and Plantation firms. The statistical result form annually cross-sectional regression show weak evidence to support the significant role of dividend yield and dividend stability in explaining firm stock returns. Changes in dividend yield, on the other hand, have negative and significant coefficients in explaining stock returns in Trading/services firms throughout 1993-1996 and the average crisis periods. For Plantation firms, it is negatively significant only in 1994 and 1997. The main purpose in conducting this study was to identify the role of dividend in explaining Malaysian firm stock returns. They tested the relationship of firm stock returns with the so-called the dividend related variables, comprising dividend yield, dividend stability and changes in dividend yield. Although they do not obtained very strong results that the dividend related variables are the main factors explaining firm stock returns, they do find that changes in dividend play some role in explaining firm stock returns, especially of the Trading/Services firms, which are essentially representing growth firms. IF this holds true across the whole Malaysia listed firms, this suggests that CEO and top management of growth firms should pay careful attention to the changes of dividend yield in their firms, which has an inverse relationship with the stock returns. Smoothing dividends payment over time can push the stock price to higher level. Another option is to maintain the level of dividend yield by adjusting the dividend payment relative to the stock price. Furthermore, announcing changes in the level of dividend payment provides important information to investors and must be carefully considered. This will eventually maximize the firm value; follow by the maximization of shareholder wealth.

Friend and Puckett's Study

Friend and Puckett had conducted a study on the relationship between dividend and stock prices based on 110 firms from five industries. There five industries were chemical, electronic, food, steel and electric utilities. The study prior covered a boom year for the economy when stock price leveled off after rise (1956 A. D) and a somewhat depressed year for the economy when stock prices, however, rose strongly (1958 A.D) (Friend and Marshall, 1964).

They used dividends, retained earnings and price earning ratios as independent variables in their regression model of price function. They also used dividend (supply) function on which earnings, last year's dividends and price earnings ration are independent variables.

Their price function and dividend (supply) function can be presented as follows:

I) Price Function

$$P_t = a + bD_t + cR_t + d\left(\frac{E}{P}\right)_{t-1}$$

Where,

P_t = Price per share at time t.

D_t= Dividend at time t

R_t= Retained earning at time t.

$\left(\frac{E}{P}\right)_{t-1}$ = Lagged earnings price ratio.

II) Dividend (Supply) Function

$$D_t = e + fE_t + gD_{t-1} + h\left(\frac{E}{P}\right)_{t-1}$$

Where,

E_t = Earning per share at time t.

D_{t-1} = Last year dividend

This study was based on following assumption.

a) Dividends do react to year-to-year fluctuation in earnings.

b) Price doesn't contain speculative components.

c) Earnings function may not sum zero over the sample.

The conclusion of Friend and Puckett's study was, 'it is possible to increase stock price in non growth industry by raising dividend, and in growth industry by greater retentions or low dividends.

Deepak Chawala and G. Srinivasan's Study

In India, Chawala and Srinvasan studied the impact of dividend and retention on share price.18 Chemical and 13 sugar industries were selected for the study (Chawala, and Srinivasan, 1987).

The objectives of their study were as follows:

- To set a model to explain share price, dividend and retain earnings relationship.
- To test the dividend, retained earnings hypothesis.
- To examine the structural changes in the estimated relations over time.
- To explain the price behavior, they used simultaneous equation model as developed by friend and Puckett (1964).

Price Faction

$$P_t = F\left[[D_t, R_t \ \left(P/E\right)^1 \ / (t-1)\right]$$

Dividend Supply Function

$$P_t = F\left[[E_t, D_{t-1}, \left(\frac{P}{Es}\right)^1 \Big/ (t-1)\right]$$

Where,

P = Market Price per Share

D = Dividend per Share

R = Retained per Share

E =Earning per Share

$\left(\frac{P}{E^1}\right)$ = Deviation from the sample average of price earning ratio

t = Subscript for time.

They used two stage least square techniques for estimation and in case of chemical industry they found the estimated coefficient had the correct sign and the coefficient of determination of all the equation were very high. It implies that the stock price and dividend supply variation can be explained by their independent variables. But in case of sugar industry, they found the sign for the retained earnings is negative. Finally, they concluded that dividend hypothesis holds well in chemical industry. Both dividend and retained earnings significantly explain the variation in share price in chemical industry. They also stressed that the impact of dividend is more pronounced than that of the retained earnings but the market has started shifting towards more weight for retained earnings.

2.5.1 Review of Research Works in Nepalese Perspective

In this regard, there are very few articles published in Nepal under this sub- section, the two major studies are reviewed as follows:

Pradhan's Study

This study on “Stock market behavior in a small capital market: A case study of Nepal” was based on the data collected for 17 enterprises from 1986 through 1990 (Pradhan, 1993).

The following were the objectives of the study.

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

The employed equation was:

$V= b_o+ b_1 LIQ +b_2 LEV + b_3 EARN + b_4 TURN +b_5 COV +U_t$

Where,

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

- Market equity (ME) - Market value of equity to its book value $\left(\frac{MV}{BV}\right)$.
- Price- earning ratio $\left(\frac{P}{E}\right)$.
- Dividend per share to market price per share $\left(\frac{DPS}{MPS}\right)$.
- Dividend per share to earning per share $\left(\frac{DPS}{EPS}\right)$.

LIQ= Current ratio (CR) or quick ratio (QR).

LEV= Long-term debt to total assets $\left(\frac{\text{LTD}}{\text{TA}}\right)$ or long-term debt to total capitalization $\left(\frac{\text{LTD}}{\text{TC}}\right)$.

EARN= Return on assets, that is earning before tax to total assets $\left(\frac{\text{EBT}}{\text{TA}}\right)$ or earning before tax to net worth $\left(\frac{\text{EBT}}{\text{NW}}\right)$.

TURN = Fixed assets turnover, that is, sales to average fixed assets $\left(\frac{S}{FA}\right)$, or total assets turnover, that is sales to average total assets $\left(\frac{\text{S}}{\text{TA}}\right)$.

COV = Interest coverage ratio, that is, earning before tax to interest.

U = Error term

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

- Higher the earnings on stocks, larger the ratio of dividends per share to market price per share.
- Dividend per share and market price per share was positively correlated.
- Positive relationship between the ratio dividend per share to market price per share and interest coverage.
- Positive relationship between dividend payout and liquidity.
- Positive relationship between dividend payout and profitability.
- Positive relationship between dividend payout and turnover ratios.
- Positive relationship between dividend payout and interest coverage.
- Liquidity and leverage ratios are more variable for the stock paying lower dividends.
- Earnings, assets turnover, and coverage are more variable for the stock paying higher dividend.

Shrestha Study

One article, "Public Enterprises: Do they have dividend paying ability"? was published in 1981 by Prof. Dr. Manohar Krishna Shrestha, which gives short glimpse of the dividend performance of some public enterprise of that time in Nepal (Shrestha, 1981).

Dr. Shrestha has highlighted following issues in his article.

- Nepal Government (NG) expects two things from the public enterprises:
  i. They should be in a position to pay minimum dividend and

ii. The public enterprises should be self- supporting in financial matters in future years to come, but none of these two objectives are achieved by the public enterprises.

- Another reason is the lack of self-criticism and self-consciousness. He has pointed out that the lack of favorable leaders is one of the biggest constraints to institution building: Moreover, corporate leadership comes as managers of corporations have not been able to identify them regarding what they can contribute as managers of corporations. So, NG must be in a position to develop a financial target in corporate investment by imposing financial obligation on corporation.
- The article point out the irony of government biasness that government has not all owed bands to follow an independent dividend policy and NG is focused to have pressurized on dividend payment in case of Nepal Bank Ltd. regardless or profit. But, it has let off Rastriya Banijya Bank from dividend obligation is spite of considerable profit.

The improvements suggested by author are:

- Adopt a criteria-guided policy to drain resources from corporations through the medium of divided payment.
- Realization by Managers about the cost of equity and dividend obligation.
- If Nepal Government wants to tap resources through dividend, the following criteria should be followed.
- Proper evaluation of public enterprises in term of capability of paying dividend should be made through corporation co-ordination committee.
- Imposition of fixed rate of dividend by government to all the financially sound public enterprises.
- Circulating the information to all the public enterprises about the minimum rate of dividend.
- Specifying performance criteria such as profit target in terms of emphasis, priorities, timing and plans and developing a strategic plan that is not just a statement of corporate ion aspiration but must be done to covert the aspiration into reality.

- Identification of corporation objectives in corporation Act, Company Act or special charter so as to clarify the public enterprise managers regarding their financial obligation to pay dividend to NG.

2.5.2 Review of Previous Thesis

Prior to this thesis, some student has conducted several thesis works. Out of them, as are supposed to be relevant for this study have been reviewed in this section.

Rana (2007), has conducted a study on "Dividend Behavior of Joint Ventures Banks in Nepal" with the objectives to highlight the dividend behavior of Nepalese joint ventures banks, to analyze the relationship of dividend with earning per share, stock price, net profit and net worth, to find out whether dividend behavior affect the market price of shares differently in different banks and to provide valuable suggestion regarding dividend behavior (policy).

The major findings of this study are as follows:

- Their average dividend yield of the joint ventures banks under study indicates that the dividend yield is quite high which shows the fluctuation of dividends.
- The DPS of NBB is positively correlated with EPS, MPPS, and NP. Similarly DPR is positively related with MPPS.
- The average price earnings ratio of joint venture banks seems to be satisfactory. Everest bank has higher P.E ratio and NBB has lowest. It indicates that investors perceive that investment in EB is more worthy. And so on.
- Positive relationship between dividend payout and profitability.
- Positive relationship between dividend payout and turnover ratio.
- Positive relationship between dividend payout and interest coverage.

Bista (2009) has carried out a study on "Impact of Dividend on Market Price of Shares of Selected Commercial Banks" with the aim to highlight the various aspects of dividend policies and practices in Nepal and to analyze the variables such as DPS, DPR, dividend yield and their relation with market value. Collecting the data from secondary sources of few years from 1998/99 to 2005/06, she analyzed and made the study using financial and statistical tools. The major findings of her study are:

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

Chalise (2011), has carried out a research entitled "Dividend Policy of Commercial Banks in Nepal: A Case Study of NABIL, HBL and NIBL." The main focus of the study was to highlight the dividend policy as a major financial decision of Commercial Banks and Financial Institutions. The study is to examine the dividend practice of Commercial Banks from different angles. Commercial Banks have no satisfactory results about dividend decision. So, this study is undertaken for comparative study of dividend policy adopted by them and to suggest the directions for growth of Commercial Banks to concerned parties. The objectives of the study were to analyze, interpret & compare the dividend policies followed by the Commercial Banks in Nepal, to analyze the relationship of dividend with various important variables such as EPS, DPR, DY, P/E ratio, EY & MVPS and to recommend the appropriate suggestions and possible guidelines to take corrective actions based on the findings of the study.

The major findings of the study are highlighted as follows:

- NABIL has highest MPPS among the other sample commercial banks. MPPS of NABIL, HBL and NIBL have increasing trend until three year (ie 2062/063 to 2064/065).but after MPPS of both banks are decreasing trend.
- Dividend yield of NABIL bank has decreasing trend. but D/Y of HBL and NIBL are fluctuation trend.

- Earning Yield (EY) of the commercial Banks is not stability. EY of HBL and NIBL have decreased in starting four year. But in ending year EY of these banks have increased. but E/Y of NABIL has fluctuation trend.
- Price Earnings Ratio of commercial bank is stability. Price earnings ratio of NABIL has fluctuation trend. but price earnings ratio of HBL and NIBL have increased in starting three year. But in ending two year price earnings ratio of these banks have decreased.

Thapa (2011), has carried out a study on "Impact of Dividend Policy on Market Price of Stock: Study of Manufacturing and Financing sector." The major objective of the study will be obtained 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 to assess the impact of dividend on market price of share, to highlight the prevailing dividend policy adopted by the listed companies, to analyze, examine and interpret the stock price movement of listed Manufacturing and financing companies after announcing the dividend decisions.

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

- 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 dedicated by P/E ratio.
- EPS of BNL is fluctuating trend while that of UNL is in increasing trend; EPS of financial companies is also in fluctuating trend.
- The average highest DPR is 108.45 of UNL. There is high fluctuation in DPS, BNL, as depicted by CV of 122.34% whereas lowest fluctuation CV is 41.09% of UNL.
- Profitability of common shareholders investment is better in UNL then other companies as they are found maintain their EPS above industry average.
- The earning yield of UNL ranks the highest (i.e. 13.36) while the earning yield of BNL is the lowest (i.e. 5.16) and of the companies lies in between these two.

Damase (2012) has conducted a study on "Dividend Policy and Practices in Nepalese Joint Venture Banks: A Case Study of Nabil and HBL." The objectives of the study is primarily undertaken to focus on the prevalent dividend policies and to suggest the

direction of future endeavors for the overall healthier development of the share market and also the possible impact of such endeavors on the share market in Nepal. The specific objectives were to identify what type of dividend policy is being followed and what type of dividend policy is being followed policy is appropriate, to highlight dividend practices of the banks and to analyze the relationship between dividend per share with various important variables such as earning per share, net profit, net worth and stock prices.

Major findings of the study were as follows:

- HBL distributed bonus share dividend in each fiscal year taken for research. The average bonus share equivalent to Rs. 18 per share has been distributed during the period. While, NABIL distributed bonus share only in the fiscal year 2006/07 and 2007/08 equivalent to Rs. 40 per share in each year. Therefore there is no standard bonus share dividend policy in NABIL.

- The DPR ratio shows that HBL provided an average 27.88% of its EPS as dividend which is comparatively very low compared to the dividend payout ratio of NABIL (66.14%). HBL focused more on retaining profit for internal financing purpose, whereas NABIL focused more on retaining shareholders through providing more dividends.

- The P/E ratio shows that MPS of HBL is almost 23.03 times greater than its average EPS, whereas the MPS of NABIL is almost 25.59 times higher than EPS. This means that the shareholder of HBL invests Rs. 23.03 and that of NABIL invests Rs. 25.59 to achieve one rupee earning per share.

- The dividend yield ratio shows that only 1.22% of the average market price of HBL was provided as dividend during the period taken for study, whereas 3.61% of the MPS of NABIL was provided as dividend. Hence the shareholders of NABIL enjoyed more divided percent compared to the shareholders of HBL on the basis of MPS. Also, the MPS is 5.32 times greater than BVPS of HBL, while the MPS of NABIL is 8.13 times higher than the BVPS.

2.6 Research Gap

Due to the economic liberalization, privatization and globalization, there is rapid change in the share market and dividend practices of Nepal. The current situation of capital markets of Nepal is in improving state. Still, more positive changes are due to come in future.

Reviewing the available studies in Nepal, it is found that few students have conducted on study of dividend practices especially commercial bank and finance companies in combination. Regarding dividend policy, dividend decision is one of the major decisions of the company. It has direct effect on the market value of share and its trend is very important to attract rational investors.

Actually, Commercial banks are financial institutions provides services, which are different from other like development agriculture etc. So, in commercial bank there should be some unique policy and strategy. This study differs from the previous studies because it tries to analyze the dividend policy and practices in banking and finance companies which is rarely covered by previous studies. With the help of sample companies using different types of statistical tools like Mean, Standard Deviation, Coefficient of Variation, Regression etceteras.

This study is based on the recent data, which helps to provide meaningful insights to the Nepalese investors while making investment decision. The empirical evidences of dividend policy determinants can be useful to find the relevancy of dividend theories in Nepalese context.

CHAPTER-III

RESEARCH METHODOLOGY

This chapter presents the short outline of the methods applied in the process of analyzing the dividend practices whereas research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objective in view. Research methodology contains the following aspects:

3.1 Research Design

Research design is a plan, structure and strategy of investigation. It is conceived so as to obtain answers to research questions and to control variance. Research design helps in the analysis of data related to the study topic. It is a controlling media for the collection of data. It helps to collect the accurate information, which is related to dividend practices of the finance companies and JVBs. The research design of this study will be descriptive as well as analytical by using the variables related to the dividend policy of JVBs and Finance Companies. For the analytical purpose, the reports of relative finance companies and Joint Venture banks are collected from the year 2007/ 08 to 2010/2011.

3.2 Populations and Sample

Since mid 1980s (Nepal Government) adopted economic liberalization policy in Nepal. Many Joint venture banks and finance companies are established within a short period of time. Therefore it is not possible to study all of them regarding the study topic. We have used sampling technique in selecting sample from the population. Out of twenty-three commercial banks that are operating their activities in Nepal, only seventeen are listed in Nepal Stock Exchange (http:// www.nepalstock.com).

Now, thirty-two commercial banks are in operation in Nepal. Out of them, only three Commercial Banks are selected for the study purpose. Thus in our study, we have selected only three banks which is only 9.375% of the population size.

A list of listed finance companies in the Nepal Stock Exchange is shown in appendix. The samples selected for this study are as given below:

1) Everest Bank Limited
2) Kumari Bank Limited
3) Siddhartha Bank Limited

Starting from the early 1990s, finance companies are growing rapidly. The total number of finance company was fifty-five in 2005 whereas seventy-nine in 2011. There are fifty-five finance companies are listed in the SEBON and shares of only few companies are traded actively in stock markets. A list of listed finance companies in the Nepal Stock Exchange is shown in Appendix (http:// www.nepalstock.com).

Hence, it is not possible to study all of them regarding the study topic. Thus, only three finance companies are to be taken as samples. These sample finance companies are different according to their working areas and their objectives. The sample represents 3.8% of total population. They are as follows:

1) Butwal Finance Limited.
2) United Finance Limited.
3) Mahalaxmi Finance Limited.

3.3 Natures/Sources of Data

The study mainly conducted on the basis of secondary data. To analyze the study topic, the required data have been collected from annual reports of concerned joint venture banks and finance companies. Other supplementary data and information are obtained from Nepal Rastra Bank's reports. In addition to it, the other data are collected from financial statement published by Nepal Stock Exchanged Ltd., Nepal Rastra Bank and Security Board of Nepal.

3.4 Method of Analysis

The collected data of the joint venture banks and finance companies will be conducted according to the necessary pattern. Various financial and statistical tools have been applied to analyze the variables regarding the study topic. The various calculated results have been obtained through financial and statistical tools. They are tabulated under different headings by using various financial and statistical tools.

3.5 Financial Tools

Financial tools are those tools, which help to study the financial strength and weakness of the sample firms. Financial tools used in study are as follows:

3.5.1 Earning Per Share (EPS)

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

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

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

3.5.2 Divined Per Share (DPS)

Dividend per share indicates the rupee earnings distributed to common stockholders per share out of earnings available. It measures the dividend distribution to each equity shareholders. Dividend per share shows the portion of earning distribution to the shareholders on per share basis. Generally, the higher DPS creates positive attitude of the shareholders toward the banks and finance companies. Dividend per share helps to increase the market value to the share. It also works as the indicator for better performance of the bank management.

It is calculated by dividing the total dividend distributed to equity shareholder by the total number of equity shares outstanding. The equation of DPS is given below:

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

3.5.3 Dividend Payout Ratio (DPR)

It is the portion of earning paid in the form of dividend. This ratio shows what percentage of profit is distributed as dividend and what percentage is retained for the growth of the banks and finance companies. The dividend payout ratio of the banks and finance companies depends upon the earnings made by the banks and finance companies and the management decision to this effect. Higher earning enhances the ability to pay more dividend and vice-versa.

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

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

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

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

= (1-DPR)

3.5.4 Price Earning Ratio (P/E Ratio)/ Earning Multiplier

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

The P/E ratio measures investor's expectation and market appraisal of the performance of the firm. The higher P/E ratio implies the high market share price of a

stock. This ratio is computed by dividing Market per share by Earning per share. Thus,

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

3.5.5 Earning Yield (EY)

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

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

3.5.6 Dividend Yield (DY)

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

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

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

3.5.7 Market Price per Share (MPPS) to Book Value per Share (BVPS)

MPPS is the price of share on which shares are traded in the secondary market. Thus, this price is fixed in the stock market on the basis of demand and supply position for a specified share. Higher MPPS is more desirable.

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

This is important to compare the market share prices of different stocks on the basis of the book value per share. It shows the market share price of a stock as a percentage of book value per share and the effect of later on the former. The higher ratios help to conclude that the better performance of joint venture banks in terms of market price per share to book value per share. This ratio can be derived by dividing market price per share by book value per share. Thus,

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

3.5.8 Net Worth Per Share

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

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

3.6 Statistical Tools

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

3.6.1 Arithmetic Mean or Average ($\overline{X}$)

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

$$\overline{X} = \frac{\Sigma X}{N}$$

Where,

ΣX = Sum of the sizes of the items

N = Number of items

3.6.2 Standard Deviation (σ)

Karl Pearson first introduced the concept of standard deviation in 1983. Standard deviation is the positive square root of the arithmetic average of the squares of all the deviation measured from the arithmetic average of the series. The standard deviation measures the absolute dispersion of a distribution. Greater the amount of dispersion the greater the standard derivation i.e. greater will be the magnitude of the deviation of the values from their mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series. Standard Deviation is denoted by a Greek letter 'σ' (Sigma) and is calculated as follows.

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

Where,

N = Number of items in the series.

$\overline{X}$ = Mean

X = Variable

3.6.3 Coefficient of Variation (C. V)

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

Thus,

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

Where,

σ = Standard Deviation

$\overline{X}$ = Mean

3.6.4 Coefficient of Correlation (r)

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

The value of coefficient of correlation always lies between ± 1. A value of -1 indicates a perfect negative relationship between the variables and a value of +1 indicates a perfect positive relationship. A value of zero indicates that there is no relation between the variables. The zero correlation coefficient means that the variables are uncorrelated. The closer r is +1 or -1, the closer the relationship between the variables and closer r is to zero (0), the less close relationship. The algebraic sign of the correlation coefficient indicates the direction of the relationship between two variables. It may be direct or inverse.

Thus, in this study, the degree of relationship between the dividend per share and other relevant financial indicators such as, market price per share, earning per share and net worth per share is measured by the correlation coefficient. The correlation coefficient can be calculated as;

$$r = \frac{Cov(XY)}{\sigma_x \sigma_y}$$

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

or ,

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

Where,

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

Cov (X, Y) = Co variation of X, Y value

$$= \frac{\Sigma(X - \overline{X})(Y - \overline{Y})}{(N-1)}$$

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

a. Dividend per Share and Earning Per Share.
b. Dividend per Share and Market price per share.
c. Dividend per Share and Net Worth per share.

3.6.5 Coefficient of Determination (R^2)

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

$$\text{Coefficien t of Determinat ion } (R^2) = \frac{\text{Explained Variation}}{\text{Total Variation}}$$

or,

$$R^2 = \frac{1 - \text{Unexplain ed Variation}}{\text{Total Variation}}$$

3.6.6 Regression Analysis

Francis Galeton was the first person to introduce the concept of regression. Regression refers to an analysis, which involves the fitting of an equation to a set of data points. Generally it is shown by the method of least square. In other words the correlation analysis shows the direction of movement but it doesn't tell the relative movement in the variable under study. Regression analysis helps to know the relative movement in the variables. Simple regression analysis of the following variables are calculated and interpreted in this study.

A. Dividend per Share on Earning Per Share

For this, following model is used.

$Y = a + bx$

Where,

Y = Dividend per share

a = Regression constant

b = Regression co-efficient

x = Earning per share

This analysis enables to know whether EPS is influencing factor of divined per share or not.

B. Dividend per Share on Market Price per Share

The Model:

$Y = a + bx$

Where,

Y = Market per share

a = Regression constant

b = Regression co-efficient

x = Dividend per Share

This model tests the dependency of DPS on MPPS.

C. Dividend per Share on Net Worth per Share

The model:

$Y = a + bx$

Where,

Y = Net worth

a = Regression constant

b = Regression co-efficient

x = Dividend per Share

This model tests the dependency of dividend per share on Net worth. In correlation and regression analysis following statistics has been calculated and interpreted accordingly.

1. **R^2**: It is the co-efficient of determination. It measures the linear association between variables. It tells the explained variation due to independent variable. It is square of co-efficient of correlation.
2. **Regression Co-efficient (b):** It describes how the changes in independent variables affect the values of dependent variable's estimate.
3. **Regression Constant (a):** The regression constant (a) indicates the average effect on dependent variable, if all the independent variables are omitted from the model.

3.6.7 Multiple Regression Analysis

When we take two or more independent variable and predict the value of dependent variable through the appropriate regression time than the analysis is known as multiple regression analysis. It is the correlation coefficient between observed values and values given by the model. The values close to 1 is preferable, since it indicates that the values are closely related. An attempt has done to examine the relationship of market price per share with other key variables. The results of simple regression analysis eliminate all the limitation of single regression analysis. The key variables

are Dividend per Share and Earning per Share. Multiple regression analysis of the following variables is calculated and interpreted in this study are as:

MPPS on DPS and EPS Regression Equation is:

$X_1 = a + b_1 X_2 + b_2 X_3$

Or, MPPS = $a + b_1$.DPS + b_2.EPS

It can also be calculated by another method given below:

$$X_1 - \overline{X_1} = \frac{\sigma_1(r_{12} - r_{23} \times r_{13}) \times (X_2 - \overline{X}_2)}{\sigma_2(1 - r_{23}^2)} + \frac{\sigma_1(r_{12} - r_{23} \times r_{13}) \times (X_3 - \overline{X}_3)}{\sigma_3(1 - r_{23}^2)}$$

Where,

X_1 = Market Price per Share

X_2 = Dividend per Share

X_3 = Earning per Share

b_1 = Regression Coefficient of Dividend per Share

b_2 = Regression Coefficient of Earning per Share

$\overline{X}_1$ = Mean of Market Price per Share

$\overline{X}_2$ = Mean of Dividend per Share

$\overline{X}_3$ = Mean of Earning per Share

σ_1 = Standard deviation of Market price per Share

σ_2 = Standard deviation of Dividend per Share

σ_3 = Standard deviation of Earning per Share

r_{12} = Correlation between MPPS and DPS

r_{23} = Correlation between DPS and EPS

r_{13} = Correlation between MPPS and EPS

3.7. The Analysis of Variance Test (ANOVA)

The analysis of variance is a powerful statistical tool for test of significance. The test of significance based on t - distribution is an adequate procedure only for testing the significance of the difference between two sample means. In a situation when we have three or more samples to consider at a time, an alternative procedure needed for testing the hypothesis that all sample are drawn from the population are drawn from the population with the same mean.

By this technique the total variance in the sample data is expressed as the sum of it non-negative component where each of these components is a major of the variation due to some specific independent source or factor or causes. The ANOVA consists in the estimation of the amount of a variation due to each of the independent factor separately and than comparing this estimate due to assignable factor with the estimate due to change factor, the latter being known as implemental error.

Assumption for ANOVA Test

1. The observations are independent
2. Parent populations from which observations are taken are normal
3. Various treatment environmental effect are additive in nature

Here one-way ANOVA method is used to examine the equality between sample variance.

CHAPTER-IV

DATA PRESENTATION AND ANALYSIS

Background

Dividend policy is considered as one of the major decisions of the firm. This policy is concerned with the judgment of dividing net earnings into two parts, retained earnings and dividends, which affect the total value of the firm. The study contains different objectives, which are already mentioned in the previous chapter. In order to fulfill these objectives, the study attempts to analyze the secondary data regarding dividend policy of joint venture Banks (JVBs) and finance companies. The analysis includes several tools and techniques such as statistical and financial indicators as well as the attitude of management towards the optimum decision. This analysis is highly supported by the practice of dividend distribution by JVBs and finance companies. Presentation and interpretation of financial statement are done here to serve the objective of this research.

4.1 Analysis of the Financial Tools (Indicators)

4.1.1 Earning Per Share (EPS)

Normally, the performance and achievement of a business organization are measured in terms of their capacity for generating earnings. Higher earning indicates the strength and lower earning denotes the weakness of business organization. Earning per share is calculated by dividing the net profit after taxes (NPAT) by the total number of common shares outstanding. EPS is the measurement of good and bad performance of institutions. For instance, higher EPS shows the good performance and lower EPS shows the weak performance. As a result, EPS, the achievement of the institutions are measured with the help of its capacity to generate higher earning per share. So, higher EPS is the important financial performance indicators of business organization to achieve its goals and objectives. The earning per share of the banks under study is tabulated in Table-1.

Table No. 4.1

Earning Per Share of Banks under Study of Financial Indicators

Bank	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
EBL	78.42	91.82	99.99	100.16	92.6	8.85	9.56
KBL	22.70	16.35	22.04	24.24	21.33	2.98	13.99
SBL	15.88	17.29	22.89	21.99	19.51	2.99	15.32

Source: Appendix - 1

The EPS of Everest Bank Ltd. (EBL) ranges between Rs. 78.42 and Rs. 100.16 during the period of the study. In this period the average EPS or mean is Rs. 92.6. The Standard Deviation (σ) of the EPS under the period of the study is 8.85. The Co-efficient of variation (C. V) of EBL is 9.56% on EPS. As per the outcome of the study of the given 4 year's period of EBL indicate that there is 9.56% fluctuation in EPS.

During the period of study, Kumari Bank Ltd. (KBL) has an average EPS of Rs. 21.23 with a standard deviation (σ) of 2.98. During the time period of the study the EPS ranges between 16.35 and 24.24. The Coefficient of variation (C.V.) of KBL is 13.99%, which shows that, there is average fluctuation in EPS of this Bank.

During the period of the given study period, the average EPS of Siddhartha Bank Limited is Rs. 19.51. It stays with in the range of Rs. 15.88 to 22.89. The standard deviation (σ) of EPS is 2.99, where as the co-efficient of variation (C.V) 15.32. The coefficient of variation (C.V.) indicates a medium size fluctuation in the EPS of the bank among the 4 years period of the study.

Finally, EPS of commercial banks in Nepal seems to be positive. The average EPS of EBL is highest and that of SBL has lowest value. The range of EPS of the banks under the periods of the study is between Rs. 100.16 to 15.88. Similarly, the standard deviation (σ) of KBL is the highest and SBL is the lowest. The coefficient of variation (C.V) of these banks shows that there is fluctuation in the EPS. If we compare all the banks selected, EBL has the most consistent EPS among all the sample banks.

The following table shows all the details regarding earning per share, mean, standard deviation and C. V. of sample finance companies.

Table No. 4.2

EPS of Finance Companies under Study of Financial Indicators

FC	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
BFL	12.62	18.82	23.91	29.04	21.10	6.08	28.82
UFL	34.97	17.77	24.50	12.12	22.34	8.51	38.08
MFL	25.37	24.88	29.07	9.81	22.28	7.38	33.12

Source: Appendix- 1

During the period of the study, the EPS of Butwal Finance Limited (BFL) ranges between Rs. 12.62 to Rs.29.04. The average EPS or mean of the bank for the given period of the study is 21.10. The standard deviation (σ) of BFL is 6.08, and its C.V is 28.82% on EPS. It indicates that there is average fluctuation in EPS among the given 4 years period of the study.

During the period of study, UFL has an average EPS of Rs. 22.34 with the standard deviation (σ) of 8.51. The EPS of the UFL ranges between 34.97 to 12.12. The C.V. Of the bank is 38.08%. The C.V of 38.08 indicates a moderate fluctuation in the EPS of the UFL.

Among the given period of the study, MFL has an average EPS of Rs. 22.25 with the standard deviation (σ) is 7.38. The EPS of MFL ranges between Rs. 29.07 to 9.81 and the C.V of the given finance company is 33.12. The C.V of the finance company indicates that there is medium size fluctuation in EPS of the company.

On the base of the study of selected finance company, researcher can say that the finance companies of Nepal has positive EPS. The Butwal Finance Limited seems more consistent finance company beside lower average EPS. The standard deviation and coefficient of variation BFL is seems more consistent.

4.1.2 Dividend per Share (DPS)

Dividend per share indicates the proportion of earning distributed to owner (shareholder) on per share basis. Generally, the higher DPS creates positive attitude among the shareholders toward the bank, which accordingly helps to increase the market value of shares.

Table No. 4.3

Dividend per Share of Banks under Study of Financial Indicators under study are stated in the table below

Bank	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev.	C.V.
EBL	10	20	30	30	22.50	8.29	36.84
KBL	1.05	0.53	0.55	12	3.53	4.89	138.43
SBL	0.79	0.79	0.79	8.42	2.70	3.30	122.34

Source: Appendix-1

The mean Dividend per Share (DPS) of Everest Bank Limited (EBL) is Rs 22.50 with the standard deviation (σ) of 8.29. The range of the EPS is 30 to 10. The coefficient of variation (C.V) is 36.84%, the rate of coefficient of variation is indicates that there is average uniform in the DPS of EBL during the period of study

Kumari Bank Limited (KBL) has an average DPS or Rs. 3.53. The highest DPS is Rs. 12 and the lowest DPS is 0.53. The standard deviation (σ) is 4.89 and coefficient of variation (C.V) is 138.43. The result of CV indicates that there is highly fluctuation or less homogeneous in DPS of Kumari Bank Limited.

During this period of study, the average DPS of SBL is Rs 2.70. It is within the ranges from Rs. 0.79 to 8.42. The standard deviation (σ) of DPS is 3.30 whereas the coefficient of variation (C.V) is 122.34%. The C.V indicates that there is greater fluctuation in DPS of KBL.

From the calculation, EBL has the highest average DPS and SBL has the lowest. The C. V. indicates that among the banks under study during period, EBL has the highest

consistency in paying dividend whereas DPS of SBL is less uniform. And also seems that KBL and SBL are quite similar for their financial transactions like DPS.

The table no. 4.4 shows all the details regarding Dividend per Share, mean, standard deviation and C. V. of sample finance companies.

Table No. 4.4

Dividend per Share of Finance Companies under Study of Financial Indicators

FC	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
BFL	0.53	0.99	-	1.58	0.78	1.16	149.68
UFL	11.84	1.05	0.66	13.16	6.68	5.84	87.46
MFL	1.12	-	24	7.75	8.22	9.58	116.58

Source: Appendix-1

During the period of the study, BFL has an average DPS of Rs. 0.78, and range of DPS is 0.00 to 1.58. The standard deviation (σ) is Rs. 1.16 and coefficient of variation (C.V) is 149.68. The C.V of BFL indicates that there highly fluctuations of 149.68% and seems not consistency in DPS.

During the period of the study, UFL has an average DPS of Rs. 6.68 and standard deviation (σ) of 5.84. The coefficient of variation (C.V) is 87.46. It means there is quit highly fluctuation in DPS of the given finance company.

For the study period, the average DPS of the MFL is 8.22. And the DPS ranging between 0.00 to 24. The standard deviation (σ) is 9.58 and coefficient of variation (C.V) is 116.58, which indicate that, there is highly fluctuation in DPS.

After collecting all the result regarding DPS of different finance companies, researcher can say that the United Finance Limited (UFL) has a higher level of average DPS and lowest level of coefficient of variation and it seems more profitable to the shareholder on behalf of DPS. Mahalaxmi Finance Limited also has a better average mean of DPS but its CV is quite high due to fluctuation of DPS is different years.

4.1.3 Dividend Payout Ratio (DPR)

This Ratio shows the amount of dividend as a percentage of earning available for equity share. It depends upon earnings of organization. Greater the earning is the more ability to pay dividend. The DPR of the banks under study are stated in the table no. 4.5 as follows.

Table No. 4.5

DPR of Banks under the Study of Financial Indicators in percentage

Bank	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
EBL	0.13	0.22	0.30	0.30	0.24	0.07	29.47
KBL	0.05	0.03	0.02	0.50	0.15	0.20	133.33
SBL	0.05	0.05	0.03	0.38	0.13	0.15	114.51

Source: Appendix-1

During the period of the study, the average DPR of Everest Bank Limited (EBL) is 0.24, which indicate generally EBL pays 24% of its total earning as dividend to its shareholders. The standard deviation (σ) of DPR of EBL is 0.07. The coefficient of variation is 29.47, which indicate that there is moderate fluctuation nature of DPS of EBL.

Kumari Bank Limited has an average DPR of 0.15 during the period of study. It means KBL generally pays 15% of its total earning to its shareholders. The standard deviation (σ) of the DPR of KBL is 0.20 whereas the coefficiant of variation (C.V) is 133.33. which indicate higher rate of fluctuation in its DPR over the years.

Siddhartha Bank Limited (SBL) has an average DPR is 0.13 among the period of study. It indicates that SBL generally pays 13% of its total earning to its shareholders in form of cash dividend. The standard deviation (σ) of DPR is 0.15 where as the coefficient of variation of 114.51. It (CV) clearly says that the bank is under less homogenous and less stable.

The calculation shows that Everest Bank Limited has a form with good average mean of DPR and lower value of standard deviation along with lower rate of coefficient of variation. It is clear that among different commercial banks Everest Bank Limited is

more consistent and more homogeneous. In the other hand the average DPR of KBL and SBL is much lower than EBL's average, the standard deviation of both KBL and SBL is higher than EBL's and also C.V of the banks are more then 100, that indicates less homogeneous.

If analysis is done taking the mean DPR of the sample banks, the highest average dividend payout ratio of the sample banks comes out to 0.24 with a standard deviation of 0.07 and CV of 29.47%. It indicates that, in average, out of the total earnings made 24% is distributed as dividend to the shareholders with fluctuation of 29.47%.

The table no. 4.6 shows all the details regarding Dividend Pay out ratio, mean, standard deviation and C. V. of sample finance companies.

Table No. 4.6

DPR of Finance Company under the Study of Financial Indicators in percentage

FC	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
BFL	0.04	0.05	-	0.05	0.035	0.021	58.86
UFL	0.34	0.06	0.03	1.09	0.380	0.427	112.37
MFL	0.04	-	0.83	0.79	0.415	0.396	95.42

Source: Appendix-1

An average DPR of 0.035 is noted during the study period for Butwal Finance Limited (BFL). The standard deviation of the DPR is 0.021. The C.V. of 58.86% indicates more stable in its dividend payout ratio.

United Finance Limited (UFL) has an average of 0.38. It means that UFL is generally paying 0.38 of its earning as dividend to its shareholders the standard deviation of DPR is .427. The C.V. of 112.37% points toward the assistance in dividend payment behavior.

During the period of study, Mahalaxmi Finance Limited has an average DPR of 0.415. The standard deviation of the DPR is 0.396. The C.V. of 95.42% has shown a more consistent behavior of dividend payment by Mahalaxmi Finance. The calculation shows that MFL has highest average of DPR and BFL is lower C.V. on DPR among all finance companies under study.

If analysis is done taking the mean DPR of the sample finance companies, the highest average payout ratio of the sample finance companies comes out to 0.415 with a standard deviation of 0.021 and C.V. of 58.86%.

4.1.4 Price Earning Ratio (P/E Ratio)

Price-earning ratio is the between market price per share and the earning per share. It is also known as earning multiplier. The price- earning ratio of the banks is presented in the table no. 4.7.

Table No. 4.7

Price Earning Ratio of Banks under Study of Financial Indicators

Bank	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
EBL	30.99	34.11	24.55	16.27	26.48	6.83	25.79
KBL	36.56	61.47	31.76	19.31	37.28	15.32	41.10
SBL	48.98	63.04	43.70	20.19	43.98	15.45	35.13

Source: Appendix-1

The average price earning (P/E) ratio of Everest Bank Limited (EBL), during this period of study, is 26.78. It stays within the range of 34.11 and 16.27. The standard deviation (σ) of P/E Ratio is 6.83 whereas the coefficient of variation of 25.79% which indicates the moderate fluctuating nature P/E Ratio for EBL.

Kumari Bank Limited (KBL) has an average P/E ratio of 37.28, ranging between 61.47 and 19.31 during the period of study. The standard deviation (σ) of 15.32 and the fluctuation rate (C.V) of KBL is 41.10%.

Siddhartha Bank Limited (SBL) has an average price earning (P/E) ratio of 43.98 ranging between 63.04 and 20.19. The standard deviation (σ) of SBL is 15.45 and fluctuation rate (C.V) is 35.13. The C.V with 35.13 indicates that there is average fluctuation nature of P/E ratio of SBL..

From the above calculation, SBL has the highest average P/E Ratio and EBL has the lowest. The C.V indicates that among the banks under study during the period KBL has the less consistency in P/E ratio whereas the P/E ratio of EBL is more stable.

The following table shows all the details regarding Price Earning ratio indicating mean, standard deviation and C. V. of sample finance companies.

Table No. 4.8

P/E Ratio of Finance Companies under Study of Financial Indicators

FC	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
BFL	15.85	54.83	43.15	26.86	35.17	17.94	42.48
UFL	11.89	52.60	33.22	24.25	30.49	14.84	48.67
MFL	15	39	0	29.25	20.81	14.74	70.82

Source: Appendix-1

Butwal Finance Limited (BFL) has an average of 35.17 P/E ratios during this period of the study, ranging P/E ratio between 54.83 and 15.85. The standard deviation (σ) is 17.94 where as coefficient of variation (C.V) is 42.48%. The coefficient of variation 42.48% indicates that there is less uniform in P/E ratio of BFL.

During the period of the study, United Finance Limited (UFL) has an average P/E ratio of 30.49, ranging between 52.60 and 11.89. The standard deviation (σ) of the UFL for the given period is 14.84 where as coefficient of variation (C.V) is 48.67. The C.V indicates that P/E ratio of UFL is less homogeneous.

The average P/E ratio of Mahalaxmi Finance Limited (MFL), during studying period is 20.81. It is within the rang of 29.25 and 0. The standard deviation (σ) of P/E ratio is 14.74 whereas the coefficient of variation (C.V) of 70.82 which indicates the higher fluctuation nature P/E ratio for Mahalaxmi Finance Limited.

From the calculation, Butwal Finance Limited has the highest average P/E ratio and Mahalaxmi Finance Limited has the lowest. The C.V. indicates that among the finance companies Mahalaxmi Finance Limited has less consistency in P/E ratio where as the P/E ratio of Butwal Finance Limited is more stable.

4.1.5 Earning Yield (EY)

Earning yield is the percentage of earning per share to market price per share in the secondary market. It gives an idea of how much an investor might get for his money. The share with higher earnings yield is worth buying. Earning yield of the banks under the study is presented in the table no.4.9.

Table No. 4.9

Earning Yields of Banks under Study of Financial Indicators

Bank	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
EBL	0.03	0.03	0.04	0.06	0.04	0.01	30
KBL	0.03	0.02	0.03	0.05	0.032	0.01	36.92
SBL	0.02	0.02	0.02	0.05	0.028	0.013	47.27

Source: Appendix-1

An average EY of Everest Bank Limited of 0.04 has been noted during the period of study ranging between 0.06 and 0.03. The standard deviation (σ) of EY is 0.01. The coefficient of variation (C.V) of EY is 30%, which indicates that there is moderate consistent in the EY of Everest Bank Limited.

The average EY of Kumari Bank Limited is 0.032 in between the range of 0.05 and 0.02. The standard deviation (σ) is 0.01 and coefficient of variation (C.V) is 36.92%. The C.V with 36.92 indicates that the EY of Kumari Bank Limited is medium homogeneous under the period of study.

The average EY of SBL during the period of study is 0.028. It is within the range of 0.05 and 0.02. The standard deviation (σ) of EY is 0.013 whereas the coefficient of variation (C.V) is 47.27%. The coefficient of variation in EY of SBL indicates that it has less consistent.

From the calculations, Everest Bank Limited (EBL) has the highest average EY and SBL has the lowest. The C.V indicates that among the banks, during the period of study, SBL has the less consistency in its earning yield among the selected banks.

The table 4.10 shows all the details regarding Earning Yield indicating mean standard deviation and C. V. of sample finance companies.

Table no. 4.10

EY of Finance Companies under Study of Financial Indicators

FC	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
BFL	0.06	0.02	0.02	0.04	0.035	0.017	48.57
UFL	0.08	0.02	0.03	0.04	0.043	0.023	54.12
MFL	0.07	0.02	0	0.03	0.03	0.025	83.33

Source: Appendix-1

The average EY of Butwal Finance Limited (BFL) is 0.035 ranging between 0.06 and 0.02 noted during the period of study. The standard deviation (σ)of the EY of BFL is 0.017 whereas the coefficient of variation (C.V) of 48.57% indicating that there is a average homogeneous in the EY of Butwal Finance Limited.

United Finance Limited has an average EY of 0.043 ranging between 0.08 and 0.02, during the period of study. The standard deviation (σ) of EY is 0.02 and the fluctuation rate as C.V is 54.12%. The coefficient of variation in EY of UFL indicates that it has the moderate nature fluctuation in EY of United Finance Limited.

Mahalaxmi Finance Limited has an average 0.03 with range between 0.07 and 0.00. The standard deviation (σ) is 0.025 and coefficient of variation (C.V)is 83.33%. The C. V of MFL indicates that there is higher fluctuation during this period.

From the above calculation, United Finance Limited has the highest average EY and Mahalaxmi Finance Limited has the lowest. The C.V. indicates that among the finance companies, Butwal Finance Limited have the more consistency in its earning yield where as the earning yield of NFC has less homogeneous.

4.1.6 Dividend Yield (DY)

Dividend yield is the percentage of DPS on MPPS. It measures the dividend in relation to market value of share. It is the dividend received by the investors as a percentage of market prices per share in the stock market. This ratio highly influences the market price per share because a small change in dividend per share can bring effective change in the market value of the share. The dividend yields of the banks, under the period of the study, are presented in the table no. 4.11.

Table No. 4.11

Dividend Yield of Banks under the Study of Financial Indicators

Bank	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
EBL	0.004	0.01	0.01	0.02	0.011	0.001	9.09
KBL	0.001	0.001	0.001	0.03	0.008	0.013	152.36
SBL	0.001	0.001	0.001	0.02	0.006	0.008	139.13

Source: Appendix-1

The dividend yield (DY) of Everest Bank Limited (EBL) ranges between 0.02 and 0.004 during the period of study. During this period, the average DY is 0.011.The standard deviation (σ) of DY of EBL under the period of study is 0.001. The C.V. of 9.09% indicates that the fluctuation of in DY of EBL is the higher class of consistency.

During the period of study, Kumari Bank Limited (KBL) has an average DY of 0.01 0.008 ranging between 0.001 and 0.03. The standard deviation (σ) DY is 0.013 whereas the coefficient of variation (C.V) is 152.36 which show that there is a fluctuation of more than 100% in DY of KBL.

The average DY of Siddhartha Bank Limited (SBL), during this period of study, is 0.006. It stays within the range of 0.001 and 0.002. The Standard deviation (σ) of DY of SBL is 0.008 whereas the coefficient of variation (C.V) is 139.13%. The C.V indicates a higher fluctuation i.e more than 100% in the DY of the bank.

From the data and calculation, it can be said that the average Dividend Yield of Everest Bank Limited is the highest and that of Kumari Bank Limited is the lowest. The DY range of the banks, during the period a study, is between 0.001 and 0.02. Similarly, the standard deviation of SBL is the highest and EBL is the lowest. The coefficient of variation of these banks shows a high level of fluctuation in the DY. In comparison, EBL has the more consistent DY among the selected banks.

The table no. 4.12 shows all the details regarding Dividend Yield indicating mean, standard deviation and C. V. of sample finance companies.

Table No. 4.12

Dividend Yields of Finance Companies under the Study of Financial Indicators

FC	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
BFL	0.003	0.001	0	0.002	0.0015	0.001	66.67
UFL	0.03	0.001	0.001	0.04	0.018	0.017	96.54
MFL	0.003	0	0	0.03	0.008	0.013	152.73

Source: Appendix-1

Butwal Finance Limited (BFL) has the average DY of 0.0015 ranging between 0.003 and 0.001 during the period of study. The standard deviation (σ) of the DY is 0.001 whereas the coefficient of variation (C.V) is 66.67%. The C.V indicates that there is a fluctuation of 66.67% in the DY of BFL during the period of study.

United Finance Limited (UFL), within the period of study has an average DY of 0.018 ranging between 0.04 & 0.00. The standard deviation (σ) is 0.017 and the fluctuation rate coefficient of variation (C.V) of 96.54 % in the DY, which indicates that there is less homogeneous in DY of UFL.

Mahalaxmi Finance Limited (MFL) has an average DY of 0.008 with the range between 0.00 and 0.03.The standard deviation (σ) of DY is 0.013 whereas the coefficient of variation (C.V) is 152.73%. The coefficient of variation shows that there is higher fluctuation of DY of Mahalaxmi Finance Limited.

From the data and calculation, it can be said that the average DY of UFL is the highest and that of BFL is the lowest. Similarly, the standard deviation of BFL is the lowest and UFL is the highest. The co-efficient of variation of these finance companies shown fluctuation in the DY. In comparison, BFL is more consistent in DY and MFL is less consistent.

4.1.7 Market Price per Share (MPPS)

MPPS is the price of share on which shares are traded in the secondary market. Thus, this price is fixed in the stock market on the basis of demand and supply position for a specified share. Higher MPPS is more desirable.

The average market price shares of the banks under study are presented in the table no. 4.13.

Table No. 4.13

Market Prices per Share of Banks under Study of Financial Indicators

Bank	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
EBL	2430	3132	2455	1630	2411.75	532	22.06
KBL	830	1005	700	468	750.75	195.86	26.09
SBL	778	1090	1000	444	828	249.09	30.08

Source: Appendix-1

The average of closing market price per share (MPPS) of Everest Bank Limited (EBL) during the period of study is Rs. 2411.75 with a standard deviation (σ) of 532 and a coefficient of variation (C.V) of 22.06%. The MPPS stays between the range of 3132 and 1630. The calculated C.V of MPPS indicates that there is more homogeneous of EBL under the period of study.

During the period of study, Kumari Bank Limited (KBL) has an average closing market price per share (MPPS) of Rs. 750.75 whereas the standard deviation (σ) of 195.86. The range of closing MPPS is 468 and 1005. The coefficient of variation (C.V) is 26.09%. The C.V with 26.09% shows that there is a small amount of fluctuation in MPPS of Kumari Bank Limited.

The average of closing market price per share of Siddhartha Bank Limited (SBL), during this period of study, is Rs. 828. It stays within the range of Rs.1090 and 444. The standard deviation (σ) of closing MPPS is 249.09 whereas the coefficient of variation (C.V) is 30.08%. The C.V of SBL indicates that there is average nature of fluctuation in MPPS.

Finally, the average MPPS of EBL is higher than other banks. So this bank is in good position but the average MPPS of all sample commercial bank being considered to be encouraging. There is less fluctuation in the MPPS of EBL due to the consistency of MPPS and have lower coefficient of variation. The MPPS of sample bank has fluctuated in range of 22.06 and 30.08 as indicated by respective C.V of the different sample banks.

The table no. 4.14 shows all the details regarding Market Price per Share indicating mean, standard deviation and C. V. of sample finance companies.

Table No. 4.14

Market Prices per Share of Finance Companies under Study of Financial Indicators

FC	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
BFL	200	1032	1032	780	761	339.84	44.66
UFL	416	935	814	294	614.75	266.76	43.39
MFL	372	1191	-	288	462.75	442.51	95.63

Source: Appendix-1

Butwal Finance Limited (BFL) has the average closing MPPS of Rs.761 ranging between Rs. 1032 and Rs. 200 within the period of study. The standard deviation (σ) of the closing MPPS is 339.84. The coefficient of variation (C.V) of 44.66% indicates that there is a fluctuation of 44.66% in the closing MPPS of BFL during the period of study, which is the nature of moderate stability.

United Finance Limited (UFL), within the period of study, has an average closing MPPS of Rs. 614.75 and stays in the range between Rs.935 and 294. The standard deviation (σ) is 266.76 and the fluctuation rate C.V of 43.39% in the closing MPPS is

seen during this period. The C.V with 43.39% indicates that there is average homogeneous nature in MPPS.

Mahalaxmi Finance Limited (MFL) has an average closing MPPS of Rs. 462.75 ranging between Rs. 1191 and 0. In the FY 202009/10 there is no any share transaction of MFL in the share market, so the market price per share is 0. The standard deviation (σ) is 442.51 and the fluctuation rate C.V is 95.63% in the closing MPPS of MFL indicating less homogeneous.

Finally, the average MPPS of Butwal Finance Limited (BFL) is higher than other selected finance companies. So this finance company is in good position but the average MPPS of all selected financial companies being considered to be encouraging. There is less fluctuation in the MPPS of United Finance Limited (UFL) due to lower coefficient of variation. The MPPS of sample financial companies has fluctuated in range of 95.63% and 43.39% as indicated by respective C.V of the different sample financial companies.

4.1.8 Net Worth per Share

Net worth per share (NWPS) is a rupee value per share. It is calculated dividing Book Value of Net Worth (or Net Worth) by total numbers of share outstanding. The dividend yields of the banks, under the period of the study, are presented in the table no. 4.15.

Table No. 4.15

Net Worth per Share of Banks under Study of Financial Indicators in Rupees

Bank	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
EBL	280.82	321.77	345.23	331.99	319.95	24.08	7.52
KBL	137	128	137	136.73	134.68	3.86	2.87
SBL	132.28	129.03	134.29	146.44	135.51	6.58	4.86

Source: Appendix-1

The average net worth per share (NWPS) of Everest Bank Limited (EBL) is Rs. 319.95 with the standard deviation (σ) of 24.08 is seen for EBL. The highest and the lowest NWPS are Rs. 345.23 and 280.82 respectively. The coefficient of variation (C.V) is 7.52% during the period of study. The C.V of 7.52% indicates that there is more consistency in NWPS of the bank.

The average net worth per share (NWPS) of Kumari Bank Limited (KBL) is Rs. 134.68 and it ranging between 137 and 128. The standard deviation (σ) is 3.86% and coefficient of variation (C.V) is 2.87%. The C.V of 2.87% indicates that the NWPS of Kumari Bank Limited (KBL) is more homogeneous.

The average NWPS of NABIL during this period of study is Rs. 359.58. It is within the range of Rs. 418.40 & 301.37. The standard deviation of NWPS is 44.23 whereas the coefficient of variation is 12.30%. The coefficient of variation in NWPS of NABIL indicates that it has also the less variation than NSBL and SCBL.

Table No. 4.16

Net Worth per Share of Finance Companies under Study of Financial indicators

FC	2007/08	2008/09	2009/10	2010/11	Mean	Std. Dev	C.V.
BFL	130.85	136.76	157.21	166.91	147.93	14.69	9.93
UFL	148.17	150.91	137.69	110.30	136.77	16.06	11.74
MFL	143.12	140.45	138.75	110.89	133.30	13.03	9.77

Source: Appendix-1

Butwal Finance Limited (NWPS) has an average of net worth per share (NWPS) of Rs. 147.93 and range between Rs.166.91 and Rs. 130.85 within the period of study. The standard deviation (σ) of the NWPS is 14.69. The coefficient of variation (C.V) of 9.93%, it indicates that there is a fluctuation of 9.93% in the NWPS of Butwal Finance Limited during the period of study.

United Finance Limited (UFL) , has an average net worth per share (NWPS) of Rs. 136.77 ranges between Rs. 150.91 and Rs.110.30. The standard deviation (σ) 16.06 and the rate of fluctuation C.V is 11.74% in the NWPS is seen during this period, which is more consistent.

Mahalaxmi Finance Limited (MFL) has an average net worth per shate (NWPS) of Rs. 133.30 ranging between Rs. 143.12 to 110.89. The standard deviation (σ) is 13.03 and the rate of fluctuation C.V is 9.77% in the NWPS of Mahalaxmi Finance Limited during the period of study.

Finally, the average NWPS of Butwal Finance Limited is higher than other finance companies. So this finance company is in good position but the average NWPS of all samples financial company is considered to be encouraging. Among above sample finance companies UFL is less consistent finance due to the higher rate of fluctuation. So, there is less consistent in the NWPS of UFL due to higher coefficient of variation and the C.V with lower rate of 9.93%, BFL is looking more consistent. The NWPS of sample financial companies has fluctuated in range of 9.93% to 11.74% as indicated by respective C.V of the different sample financial companies.

4.2. Analysis of Each Sample Companies

4.2.1 Everest Bank Limited (EBL)

Table No. 4.17

Financial Variables of EBL

Variables	Mean	Max.	Min.	C.V. (%)
EPS	92.6	100.16	78.42	9.56
DPS	22.50	30	10	36.84
DPR	0.24	0.30	0.13	29.47
P/E Ratio	26.48	34.11	16.27	25.79
EY	0.04	0.06	0.03	30
DY	0.011	0.02	0.004	9.09
MPPS	2411.75	3132	1630	22.06
NWPS	319.95	345.23	280.82	7.52

Source: Appendix-1

EPS and DPS of Everest Bank Limited (EBL) have ranged between Rs. 100.16 to 78.42 and Rs. 30 to Rs. 10 respectively. The mean average EPS and DPS of EBL is Rs. 92.6 and Rs. 22.50 respectively. Average DY of the EBL is 0.011 and its C.V is

9.09%, which indicate that the dividend yield of this bank is better. The P/E ratio is range between 34.11 to 16.27 with the mean of 26.48. The average DPR shows that this bank distributed 0.24 of its profit to shareholder and remaining are retained and its coefficient of variation is 29.47% over the years. The average MPPS and NWPS are Rs. 2411.75 and 319.95 respectively. Their coefficients of variation are accordingly 22.03 and 7.52.

4.2.2 Kumari Bank Limited (KBL)

Table No. 4.18

Financial Variables of KBL

Variables	Mean	Max.	Min.	C.V. (%)
EPS	21.33	24.24	16.35	13.99
DPS	3.53	12	0.53	138.43
DPR	0.15	0.50	0.02	133.33
P/E Ratio	37.28	61.47	19.31	41.10
EY	0.032	0.05	0.02	36.92
DY	0.008	0.03	0.001	152.36
MPPS	750.75	1005	468	26.09
NWPS	134.68	137	128	2.87

Source: Appendix-1

EPS and DPS of Kumari Bank Limited (KBL) have ranged from Rs. 16.35 to Rs.24.24 and 0.53 to 12 with the average DPS and EPS of Rs.21.33 and 3.53. The C.V. of its EPS is 13.99% and for DPS is 138.43, Rate of fluctuation of DPS indicates higher fluctuation in its average value. The average DPR is 0.15 and its C. V. is 133.33 which is seen very more fluctuation. The average dividend yield is 0.008 and its C. V. indicates 152.36% fluctuation. The bank's average MPPS and NWPS are Rs750.75 and 134.68. The C.V of NWPS of KBL is very lower so it indicate that there is more stabality in NWPS.

4.2.3 Siddhartha Bank Limited (SBL)

Table No. 4.19

Financial Variable of SBL

Variables	Mean	Max.	Min.	C.V. (%)
EPS	19.51	22.89	15.88	15.32
DPS	2.70	8.42	0.79	122.34
DPR	0.13	0.38	0.03	114.51
P/E Ratio	43.98	63.04	20.19	35.13
EY	0.028	0.05	0.02	47.27
DY	0.006	0.02	0.001	139.13
MPPS	828	1090	444	30.08
NWPS	135.51	146.44	129.03	4.86

Source: Appendix-1

Siddhartha Bank Limited (SBL) has mean EPS of Rs. 19.51 ranged between Rs. 22.89 to Rs.15.88 and its coefficient of variation is 15.32%. Banks average DPS, DPR, P/E Ratio and EY are Rs. 2.70, 0.13, 43.98 & 0.028 respectively. Its DPR shows that the bank has distributed 13% of its profit to the stockholders on an average over the years and remaining portion of profit is retained in the bank to meet other financial requirement. The average MPPS and NWPS of the bank are Rs. 828 and 135.51 respectively and its coefficients of variation are 30.08 and 4.86. The over all financial performance of this bank can be taken as satisfactorily during the study period but not in a strong condition.

4.2.4 Butwal Finance Limited (BFL)

Table No. 4.20

Financial Variables of BFL

Variables	Mean	Max.	Min.	C.V. (%)
EPS	21.10	29.04	12.62	28.82
DPS	0.78	1.58	0.53	149.68
DPR	0.035	0.05	0	58.86
P/E Ratio	35.17	54.83	15.85	42.48
EY	0.035	0.06	0.02	48.57
DY	0.0015	0.003	0	66.67
MPPS	761	1032	200	44.66
NWPS	147.93	166.91	130.85	9.93

Source: Appendix-1

Earning per share (EPS) of Butwal Finance Limited (BFL) has ranged from Rs. 12.62 to Rs. 29.04 and average DPS is Rs. 21.10. The C.V. of BFL's DPS is 28.82%. The average DPS of the company is 0.78 with the range between 0.53 and 1.58. The average DPR, P/E ratio, EY and DY are 0.035, 35.17, 0.035 and 0.0015 respectively. The average MPPA and NWPS are 761 and 147.93, with the C.V of 44.66% and 9.93%. From all the data of the table BFL seems in better condition except the C.V of DPS is higher indicating lower benefit to its shareholders.

4.2.5 United Finance Limited. (UFL)

Table No. 4.21

Financial Variables of UFL

Variables	Mean	Max.	Min.	C.V. (%)
EPS	22.34	34.97	12.12	38.08
DPS	6.68	13.16	0.66	87.46
DPR	0.380	1.09	0.03	112.37
P/E Ratio	30.49	52.60	11.89	48.67
EY	0.043	0.08	0.02	54.12
DY	0.018	0.04	0.001	96.54
MPPS	614.75	935	294	43.39
NWPS	136.77	150.91	110.30	11.74

Source: Appendix-1

United Finance Limited (UFL) has mean EPS of Rs. 22.34 ranges between Rs. **34.97** to Rs. 12.12 and its coefficient of variation is 38.08%. Its average DPS, DPR and P/E Ratio are Rs. 6.68, 0.38 and 30.49 respectively. Its DPR shows that the finance company has distributed 38% of its profit to the stockholders on an average over the years and remaining portion of profit is retained in the finance company to meet other financial requirement. The average EY and DY are 0.043 and 0.018 with the standard deviation of 0.02 and 0.001. The average MPPS and NWPS of this bank are 614.75 and 136.77 respectively. The DY of this bank indicates that the dividend yield of this bank is highly fluctuating of 96.54%. The over all financial performance of this finance company can be taken as satisfactory but not fully profitable to its shareholders during the period of study .

4.2.6 Mahalaxmi Finance Limited (MFL)

Table No. 4.22

Financial Variables of MFL

Variables	Mean	Max.	Min.	C.V. (%)
EPS	22.28	29.07	9.81	33.12
DPS	8.22	7.75	0	116.58
DPR	0.415	0.79	0	95.42
P/E Ratio	20.81	39	0	70.82
EY	0.03	0.07	0	83.33
DY	0.008	0.03	0	152.73
MPPS	462.75	1191	0	95.63
NWPS	133.30	143.12	110.89	9.77

Source: Appendix-1

The average earning per share (EPS) and the dividend per share (DPS) of Mahalaxmi Finance Limited (MFL) are Rs 22.28 and 8.22 respectively. In this finance company, average DPR, P/E ratio, EY and DY are 0.415, 20.81, 0.03 and 0.008. Average net worth per share (NWPS) and market price per share (MPPS) are 433.30 and 462.75. This finance company is operating in moderate nature, because there is more area to

improve toward the benefits of its shareholders. Among all the details NWPS and EPS are lower C.V means these are the strong points for the this finance company.

4.3 Correlation Analysis of Banks and Finance Companies

The correlation analysis is a technique used to measure the closeness of the relationship between the variables. It helps us in determining the degree of relationship between two or more variables. It describes not only the magnitude of correlation but also its direction. The coefficient of correlation is a number, which indicates to what extent two variables are related with each other. Similarly, what extent variations in one lead to the variation in the other? The correlation coefficient measures the relationship between the two variables. It also measures the extent to which one variable affects the other one. The correlation coefficient lies between +1 and -1. The +1 coefficient indicates that the correlation between DPS. This indicates that if EPS is increased DPS may also be increased for this Bank.

Table No. 4.23

Correlation analysis of Banks and Finance Companies

Banks	Variables	Correlation (r)			Correlation (r)			Correlation (r)		
		EPS	Relationship	Coefficient of Determination (r^2)	MPPS	Relationship	Coefficient of Determination (r^2)	NWPS	Relationship	Coefficient of Determination (r^2)
EBL	DPS	0.99	Positive	0.98	- 0.43	Negative	0.18	0.96	Positive	0.92
KBL	DPS	0.58	Positive	0.34	- 0.84	Negative	0.70	0.33	Positive	0.11
SBL	DPS	0.48	Positive	0.23	- 0.89	Negative	0.79	0.96	Positive	0.92
Finance Companies	**Variables**	**Correlation (r)**			**Correlation (r)**			**Correlation (r)**		
		EPS	**Relationship**	**Coefficient of Determination (r2)**	**MPPS**	**Relationship**	**Coefficient of Determination (r2)**	**NWPS**	**Relation ship**	**Coefficient of Determination (r2)**
BFL	DPS	0.43	Positive	0.19	0.00124	Positive	0.00001	0.29	Positive	0.084
UFL	DPS	0.069	Positive	0.0035	- 0.98	Negative	0.96	- 0.55	Negative	0.3028
NFC	DPS	0.25	Positive	0.061	- 0.74	Negative	0.55	-0.064	Negative	0.004

Source: Appendix-4

From the above calculation table, researcher can find Everest Bank Limited have positive relation of DPS with EPS and NWPS but have negative relation with MPPS. This indicates that DPS is increased, EPS and NWPS are also incereased and DPS is decreased. MPPS decreased due to negative relation.

Kumari Bank's Dividend per Share is positively correlated with EPS and NWPS. The relationship between DPS with MPPS is negative. If DPS of KBL will increased, the EPS and NWPS of KBL will also increase. But DPS of this Kumar Bank has negative relation with MPPS, due to such relationship between variables. If DPS increased MPPS of the Bank will decrease.

Siddhartha Bank have positive relation of Dividend per Share with it's EPS and NWPS but DPS of KBL has negative relation with MPPS. This indicates that if DPS of this bank is increased, EPS and NWPS will increases and if DPS of this bank decreased, the MPPS of the bank will decrease due to negative relation.

Here for Butwal Finance Limited, BFL have positive relation between Dividend per Share and all other variables. This indicate that if DPS of BFL increased, all other variables EPS, MPPS and NWPS are also increased due to the positive relation among all veriable.

For United Finance and Mahalaxmi Finance Limited, both finance company have positive relation of DPS with EPS, but both have negative relation of DPS with others variables MPPS and NWPS. Due to this cause there is incerase in EPS if DPS of the finance company is increased and decrease in MPPS and NWPS if DPS of the company is decreased.

At last, the table no. 4.23 shows that the relationships between DPS and EPS for all sample banks and finance companies are positive It clarifies that if EPS increases, the DPS also increase for all selected banks and finance companies but DPS is always depend up on the rules and decesion of the company's stakeholders and board of management. Here reasercher also notice that the relation of DPS with market price per share (MPPS) of the all sample banks are negative except Butwal Finance's MPPS. Similarly, the relationship between DPS and Net Worth per Share (NWPS) for all sample banks and finance companies are also positive except United Finance and

Mahalaxmi Finance Limited. By this, it is clear that if dividend per share is increases, it cause of increasing in earning per share of all sample banks and finance companies. And also notice that in all sample banks and finance companies, DPS has negative relationship with MPPS except Butwal Finance Limited. So on, the relation of net worth per share (NWPS) with dividend per share of all banks and finance company is positive except UFL and MFL. It clarifies that for these banks and finance companies, if earning per share is increased, it causes to increase in the dividend per share.

4.4 Regression Analysis

4.4.1 Regression Analysis: DPS on EPS

Correlation analysis tells the direction of movement but it does not tell the relative movement in the variables under the study. Regression analysis helps us to know the relative movement in the variables. The regression results of dividend per share or earning per share, dividend per share or net profit, net worth or dividend per share are presented in tables.

Table No. 4.24

Regression analysis: DPS on EPS under Study

Banks	Observation	Constant (a)	Regression Coefficient (b)	R^2
EBL	4	68.77	1.059	0.98
KBL	4	20	0.36	0.34
SBL	4	18.34	0.43	0.23
Finance Companies				
BFL	4	17.79	4.27	0.19
UFL	4	21.77	0.08	0.0035
MFL	4	20.72	0.19	0.061

Source: Appendix-4

The regression analysis between Dividend per Share (DPS) and Earning per Share (EPS) shows a positive relation with Finance Companies and Commercial Banks. It means if there is any amount of increase in EPS leads in Commercial banks and Finance company to increase their respective DPS. In case of EBL if there is one rupee increased in EPS leads to average Rs 1.059 increase in DPS. Likewise, in case

of Kumari Bank Limited regression coefficient shows that increase of one rupee in EPS leads to Rs 0.36 where as increase in its DPS remains other variable constant. In case of Siddhartha Bank Limited if there is one rupee increased in EPS leads to average Rs 0.43. For different Finance company likeButwal Finance Limited, United Finance Limited and Mahalaxmi Finance Limited if other variables remain constant regression coefficient indicates that one rupee's increases in EPS leads to average about Rs 4.27, 0.08 and 0.19 increase in its DPS respectively.

The coefficient of multiple determinations (R^2) is lowest for Siddhartha Bank Limited (0.23), due to change in value of EPS of the bank. The value of R^2 of other commercial banks EBL and KBL are 0.98 and 0.34 respectively, which indicates that 0.98, 0.34 and 0.23 variation in the DPS of these banks. Likewise for finance companies the coefficient of multiple determinations (R^2) is for United Finance limited (0.0035)and other finance companies BFL and MFL have their 0.19 and 0.061 respective veriation in the DPS of these Finance Companies, which cause due to the change in EPS of the Nepalese banks and finance companies.

4.4.2 Regression Analysis: MPPS on DPS

Table No. 4.25

Regression analysis: MPPS on DPS under study

Banks	Observation	Constant (a)	Regression Coefficient (b)	R^2
EBL	4	3030.91	- 27.52	0.18
KBL	4	868.88	- 33.44	0.70
SBL	4	1009	- 67.10	0.79
Finance Companies				
BFL	4	760	0.72	0.0001
UFL	4	913.36	-44.72	0.96
MFL	4	743.86	-34.21	0.55

The regression analysis between MPPS and DPS shows a positive relation with all Finance Companies and Commercial Banks. Among all banks and finance companies' regression relation between MPPS and DPS positively related but their regression coefficient (b) have negatively related except Butwal finance limited . It

means with an increase of Rs 1 in DPS of EBL, the MPPS of EBL will decrease by Rs 27.52, assuming that other variables held constant. All other banks and finance companies except BFL, MPPS of KBL, SBL, UFL and MFL will decrease by Rs 33.44, 67.10, 44.72 and 34.21 respectively with an increase in DPS by Rs 1 remaining other variables constant. It cause due to the decreaseing rate of MPPS and increasing rate of DPS.

The coefficient of multiple determination (R^2) is low for Everest Bank Limited (0.18) which indicates that there is only 0.18% variation in MPPS of the Bank. The value of multiple determinations (R^2) of Kumari Bank Limited and Siddhartha Bank Limited are 0.70 and 0.79 respectively which indicates that 70% and 79% variation in the MPPS of these banks. Likewise for finance companies Butwal Finance Limited have low coefficient of multiple determination (R^2) i.e. 0.001. Its due to the change in DPS. For other finance companies like UFL and MFL have 0.96 and 0.55 respectively are explained due to the change in DPS of the respective banks and finance companies.

4.4.3 Regression Analysis: NWPS on DPS

Table No. 4.26

Table Regression analysis: NWPS on DPS under study

Banks	Observation	Constant (a)	Regression Coefficient (b)	R^2
EBL	4	257.40	2.78	0.92
KBL	4	133.70	0.26	0.11
SBL	4	140.67	1.91	0.92
Finance Companies				
BFL	4	142.29	7.27	0.084
UFL	4	146.45	- 1.45	0.30
MFL	4	134.02	- 0.09	0.004

The regression analysis of net worth per share (NWPS) on dividend per share (DPS) shows positive relation of their constant variable (a) and their regression coefficient (b) except two finance companies UFL and MFL. Due to the positive relation between NWPS and DPS one rupee increase in DPS of EBL, KBL and SBL leads to

their respective NWPS average about 2.78, 0.26 and 1.91 respectively only if other variable remain constant. On the other hand one rupee increase in DPS of BFL leads to the average about 7.27 increases in NWPS only if other variable remain constant. But for two Finance Companies there will decrease in NWPS of UFL and MFL by average about 1.45 and 0.09 respectively with an increase in DPS by one rupee remaining other variables constant.

Among all banks value of coefficient determination (R^2) is the lowest in Kumari Bank Limited (0.1%), which indicates that variation in NWPS of the bank is explained due to the change in value of DPS of the commercial banks. The value of R^2 of EBL, SBL, BFL, UFL and MFL 0.92, 0.92, 0.084, 0.30 and 0.004 respectively. This indicates that 92%, 92%, 8.4%, 3% and .4% of NWPS can be explained by DPS of the respective banks and finance companies.

4.5 Multiple Regression Analysis of Banks and Finance Companies

Assuming that the variables are closely related, we can estimate the unknown value of one variable from the given of known values of the other vriables. When we take two or more independent variable and predict the value of dependent variable through the appropriate regression time than the analysis is known as multiple regression analysis. Multiple regression analysis is a logical extension of the simple linear regression analysis. In multiple regression analysis, instead of a single independent variable, two of more independent variables are used to estimate the unknown values of dependent variables. An attempt has been done to examine the relationship of market price per share with other key variables. The results of simple regression analysis eliminate all the limitation of single regression analysis. The key variables are Dividend per Share and Earning per Share.

4.5.1 Multiple Regression Analysis of MPPS on DPS and EPS

Regression Equation is:

$MPPS = a + b_1.DPS + b_2.EPS$

Table No. 4.27

Multiple Regression analysis: MPPS on DPS and EPS under study

Banks/Finance Companies	No. of observation	Constant (a)	Regression Coefficient	
			(b_1)	(b_2)
EBL	4	33156.00	-301.10	-258.77
KBL	4	1610.83	-20.595	-36.914
SBL	4	657.67	-75.52	19.182
BFL	4	-57.18	80.79	41.77
UFL	4	341.97	-44.90	1.22
MFL	4	432.75	37.08	15.03

Source: Appendix: 6, 7, 8, 9, 10, 11

From this analysis, table no. 4.27, show the value of b_1 of Everest Bank Limited is -301.10 that indicate one rupee increase of DPS causes Rs. 301.10 decrease in MPPS holding only other variable constant. Also b_1 of Kumari Bank Limited and Siddhartha Bank Limited are -20.595 and -75.52, means one rupee increase in DPS causes NRs. 20.595 and 75.52 respectively decrease in MPPS holding only other variable constant. Regression coefficient b_2 of Everest Bank Limited and Kumari Bank Limited are negative related i.e. -258.77 and -36.914 indicate one rupee increase in EPS causes Rs. 258.77 and 36.914 decrease in MPPS holding only other variable constant.

Likewise for BFL, UFL and MFL have positively regression relation among all variable like MPPS, DPS and EPS. b_1 of BFL and MFL are 80.79 and 37.08 indicate that one rupee increase in DPS cause Rs. 80.79 and 37.08 increse in MPPS holding only other variable constant. b_1 of UFL is -44.96 indicate one rupee increase in DPS cause Rs. 44.90 decrease in MPPS holding only other variable constant. For d_2 of all finance companies BFL, UFL and MFL are positively related i.e. 41.77, 1.22 and 15.03 indicates that one rupee increase in EPS cause Rs. 47.77, 1.22 and 15.03 increase in MPPS holding only other variable constant.

4.6 The Analysis of Variance Test (ANOVA)

The analysis of variance (ANOVA) is a statistical technique specially designed to test whether the means of more than two quantative populations are equal. The analysis of variance is a powerful statistical tool for test of significance. The test of significance based on t - distribution is an adequate procedure only for testing the significance of the difference between two sample means. In a situation when we have three or more samples to consider at a time, an alternative procedure needed for testing the hypothesis that all sample are drawn from the population with the same mean.

By this technique the total variance in the sample data is expressed as the sum of it non-negative component where each of these components is a major of the variation due to some specific independent source or factor or causes. The ANOVA consists in the estimation of the amount of a variation due to each of the independent factor separately and than comparing this estimate due to assignable factor with the estimate due to change factor, the latter being known as implemental error.

Null Hypothesis (H_o) = There is no significant relation between Dividend per Share and Earning per Share i.e. DPS=EPS or they are equally effective

Alternate Hypothesis (H_1) = There is significant relation between Dividend per Share and Earning per Share i.e. DPS≠EPS or they are different

The ANOVA Test of the banks under study is presented in the table 28.

Table No. 4.28

ANOVA Test analysis under study selected banks and finance companies

EBL	KBL	SBL	F – Test
-301.10	-20.595	-75.52	
-258.77	-36.914	19.182	0.13

Source: Appendix- 12

The table no. 4.28 shows that all the independent variables taken from the multiple regression coefficients of MPPS on DPS and EPS i.e. (b_1) and (b_2) .applying the technique of this sample data is expressed as the sum of negative where each of these

components is a major of the variation due to some specific independence factor and obtaining the various classes like sum of square between sample, sum of square with in samples. Than place out sum of square in the one-way ANOVA table that result the calculated F value and compare with degree of freedom i.e. tabulated value of F. The tabulated (critical) value of F for degree of freedom (v_1=2, v_1=3) d.f at 5% level of significance is 9.55. Since the calculated F = 0.13 is less than the critical value 9.55, it is not significant. Hence we fail to reject null Hypothesis. Here testing the data of selected banks, the conclusion appears that the three Banks are equally effective.

The ANOVA Test of the finance companies under the study is presented in the table given below.

Null Hypothesis (H_o) = There is no significant relation between DPS and EPS i.e. DPS=EPS or they are equally effective

Alternate Hypothesis (H_1) = There is significant relation between DPS and EPS i.e. DPS≠EPS or they are different.

Table No. 4.29

ANOVA test analysis under study

BFL	UFL	MFL	F – Test
80.89	-44.90	37.08	0.78
41.77	1.22	15.03	

Source: Appendix- 13

The table no. 4.29 shows that we derive this sample data on testing whether the finance companies are significant or not. To know it we calculate the value of F and tally with the critical value i.e. tabulated value. If the calculated value appears greater than the critical value it means the finance companies are not effective. Here The tabulated (critical) value of F for degree of freedom (v_1=2, v_1=2) d.f at 5% level of significance is 9.55. Since the calculated F = 0.78 is less than the critical value 9.55, it is not significant. Hence we accept null Hypothesis (H_0). On this test F is 0.78 which is less than the tabulated value which indicates there is no any significant difference between DPS and EPS of selected finance companies.

As comparing both finance companies and banks, it resulted that the outcomes of F in banks is 0.13 and the testing with finance companies F resulted 0.78. This result clearly show that the banks are more effective than the finance companies.

4.7 Major Findings of the Study

The main findings of this research work are summarized in numeric order given below:

1. The average dividend per share (DPS) shows that there is higher fluctutation in dividend payment on all banks and finance companies's stock. The Everest Bank Limited has the highest average DPS and the higher degree of regularity in paying dividend to its shareholders but all other banks and finance companies' DPS also fluctuating. The C.V. of DPS ranges 36.84% to 149.68% for among all sample banks and finance companies. Siddhartha Bank Limited (bank) and Butwal Finance Limited (Finance) have the lowest average DPS and also the less stable among the sample banks and finance companies.
2. The average earning per share (EPS) for the banks and financial companies under the study is positive. But the coefficient of variation among all banks and finance companies indicates that United Finance Limited (UFL) has less consistency of EPS because of higher rate of C.V. The C.V ranges between 9.56% and 38.08% for all the banks and finance companies. Among the sample banks and financial companies Everest Bank Limited has the highest average EPS and EBL has the least degree of fluctuation in its average EPS.
3. The analysis of DPR also shows that the DPR of the banks and finance companies are not stable. Among the banks and finance companies under the study, EBL and KBL has the highest average DPR and SBL has the least average DPR. The result shows that EBL has the lowest C.V indicates more uniformity on DPR and KBL has the highest C.V indicates less uniform on DPR. The C.V ranges between 29.47% and133.33% of all banks and finance companies.
4. The average earning yield (E/Y) of banks and financial companies, indicates that the earning yield of Mahalaxmi Finance Limited is higher than other

banks and financial companies i.e. 0.03 it due to short of one year as trading of NEPSE. That means EY of different banks ranges form 0.03 to 0.043.

5. The average dividend yield (D/Y) of the banks and financial companies indicates that the dividend yield is quite low ranging 0.011 to 0.0015. Among the banks and finance companies, Everest Bank Limited has the highest dividend yield and Butwal Finance Limited has the lowest in its divedend yield. The C.V of EBL is lower and C.V of MFL is highest indicating the fluctutation rate. There is high fluctuation in the dividend ranging between 152.73% and 9.09% in C.V.
6. The average price-earning ratio (P/E) of Siddhartha Bank Limited among all the sample banks and finance companiesis satisfactory and quite stable i.e.43.98 and KBL is also quite satisfactory other banks and finance companies. The average price-earning ratio(P/E) of Mahalaxmi Finance Limited has the lowest with 20.81.
7. The average market price per share (MPPS) shows that there is quite high level of fluctuation. Everest Bank Limited has higher average MPPS of Rs. 2411.75 than other banks and finance companies. So, this is the bank good position in the market but average MPPS of all commercial banks and finance companies can be considered as encouraging but not better position. Mahalaxmi Finance Limited has the lowest closing MPPS of Rs. 462.75 and alos it has the higher level of C.V of MPPS ie 95.63, which indicates more fluctuatuion on MPPS and EBL is the more stable banks among all sample banks and finance companies with C.V of 22.06.
8. The analysis of net worth per share (NWPS) also shows that the banks and finance companies are stable. NWPS among the banks and finance companies under the study, Everest Bank Limited has the highest average NWPS and Mahalaxmi Finance Limited has least average NWPS. The result also shows that Kumari Bank Limited has the lowest C.V of NWPS and United Finance has the highest C.V of NWPS. The fluctuation ranges of C.V from 2.87% to 11.74%.
9. The DPS of EBL is positively correlated with EPS and NWPS. This correlation results indicate that DPS increase, when the EPS increases. Similarly DPS increases when NWPS increase. But there is negative

correlation result between DPS and MPPS, indicates DPS decrease, when the MPPS increase.

10. The relationships between DPS of KBL with EPS and NWPS are positively correlated, but negatively correlated with MPPS. The correlation results indicate that when DPS increase, the EPS and NWPS increase but MPPS decrease and vice-versa.
11. The relationship between DPS of SBL with EPS and NWPS are positevely correlated, but negatively correlated with MPPS.
12. In case of Butwal Finance Limited, the DPS is positively correlated with EPS, MPPS, and NWPS while it has low value of 0.00124 correlations between DPS and MPPS.
13. The DPS of United Finance Limited has positive correlation with EPS but have negative correlation with MPPS and NWPS. The correlation indicates that when DPS increase, the EPS will increase but MPPS and NWPS will Decrease.
14. For Mahalaxmi Finance Limited, the DPS has positive correlation with EPS but negative correlation with MPS and NWPS. It indicates there is increase in DPS will increase EPS, but decrease in DPS cause decrease in other variable like MPPS and NWPS.
15. The regression analysis of DPS on EPS shows that regression coefficient (b) is positive among all the sample banks as well as intercepts term (a).
16. As far the regression results of MPPS on DPS are concerned, regressions coefficient (b) are negative in all samples banks as well as finance companies except Butwal Finance Company..
17. The multiple regression analysis of MPPS on DPS and EPS shows that regression coefficient (b_1) is negative for all selected banks , but for finance companies except United Finance Company other finance company have positive. Similarly the second regression coefficient (b_2) has come negative for two commercial banks and positive for remaining other sample banks. EBL and KBL have negative b_2 and other banks and finance company have positive b_2.
18. The regression analysis between NWPS and DPS indicates that the regression coefficient (b) is positive for all banks and BFL but negative for UFL and MFL.

To know whether the MPPS is affected by other variable, ANOVA test has done, for that first separate in two groups i.e. banks groups and finance groups and calculate the variance ratio (F).It shows that all the sample banks and finance companies MPPS are equally effective with other independent variable.

CHAPTER-V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The banks and financial companies that pay dividend are analyzed to show the implication of dividend practice, which they have adopted in their market price per share. Instability of dividend and inconsistent dividend payout ratio are the most applied phenomena of commercial banks and financial companies in Nepal. But, only the banks and finance companies operating under Joint Venture are paying dividend more attractively than the banks and finance companies promoted by indigenous promoters. However, dividend policy is taking its path, slowly in Nepalese Commercial Environment.

In analyzing the problem with the stated objectives, this study has been in more descriptive and analytical nature. The study covers three joint venture banks and finance companies as well as it cover for the past four fiscal years from 2007/08 to 2010/11. The available data has been analyzed using various financial and statistical tools.

The theoretical statement of this study shows that dividend decision should depend upon NWPS, EPS and DPS of the sample companies and banks. Among Sample Banks, dividend payout ratio of EBL is higher than other. Similarly, according to EPS, among sample banks, EBL is more successful than other where as SBL is the lowest. On the basis of P/ E ratio, among sample banks, SBL has higher average in EPS than others; it means SBL has the better performance enhancing the wealth of shareholders rather than other banks. On the basis of DPS, EBL is paying higher value of dividend among sample banks. Moreover, on the basis of market price per share and net worth per share, EBL has higher closing MPPS and NWPS and SBL has lower closing MPPS and NWPS than others. According to D/Y and E/Y, among sample banks, EBL and SBL is more useful and higher average than others.

Similarly, in the finance companies, dividend payout ratio of MFL is higher than other. According to EPS, in sample companies, UFL has highest EPS than others

finance companies where as BFL has the lowest EPS and C.V with 28.82, BFL has fewer fluctuations on EPS. On the basis of DPS, among sample finance companies MFL has greater average and UFL has lowest variation among other, it means UFL has the most consistent performance enhancing the wealth of shareholders rather than others. On the basis of DPR, MFL has highest paying capacity than other. On the basis of MPPS and NWPS, BFL has highest closing MPPS and NWPS than others.

For the purpose of statistical analysis of the entire sample banks and financial companies, simple correlation and regression analysis are used to find out the results. According to regression analysis of DPS on EPS, regression coefficient (b) is positive in all sample banks and finance companies. It indicates that among others DPS increases with increase in EPS for all. As far as coefficient (b) is concerned, for the regression analysis of MPPS on DPS, regression coefficient (b) is negative for all banks and finance companies except BFL. The negative coefficient (b) indicates that increase in dividend per share result in decrease in MPPS whereas positive coefficient indicates the increase in MPPS result decrease in DPS. Similarly, the relation between NWPS on DPS is positive in all sample banks and finance companies except UFL and MFL. The positive coefficient indicates that NWPS increase with higher DPS in all whereas negative coefficient (b) indicates the increase in NWPS result in decrease in DPS.

As per the Multiple Regression analysis of MPPS on DPS and EPS of all Banks and Finance Companies, regression coefficient (b_1) is negative in all selected banks and finance companies except BFL and MFL. The regression coefficient (b_2) has been positive all sample banks and finance companies except EBL and KBL.

For the test market, efficient or inefficient of the well-known ANOVA test has been used. From it, it is found that there is no significant difference in variables at all the Banks and Finance Companies i.e. MPPS = DPS = EPS or they are equally effective.

From the analyzing of financial, statistical and ANOVA test analysis of all sample banks and finance companies, following results are drawn out:

- There is not consistent relationship between financial variable i.e. EPS, MPPS, DPS, DPR, P/E ration, EY & DY. Specially DPS with MPPS and NWPS among selected commercial banks and finance companies.

- Dividend practices of all sample banks and finance companies are neither stable nor consistent. Inconsistent practice of distributing trend is observed and also observed that there is low rate of DPR on its EPS among all sample banks and finance companies.
- Changing in DPS affects the market price per share differently in different banks and finance companies and also observed that at the period of study the amount of MPPS is going downward in every next year due to internal as well as external factors of banks and finance companies. .

The situation of capital market of Nepal is improving day by day. But the financial environment of the Nepal is yet not supported by Nepal government. Beside that Nepali financial sector are improving day by day with their own strength and capacity. More ever, for Nepali investor cash dividend seems to be more effective than other returns like forms dividends like bonus and right.

5.2 Conclusions

In Nepal only few companies are paying dividend and the other companies are not stable in the payment of dividend. There are some companies who have never paid dividend to their investors throughout their historical background. It has been noticed that company who has risen dividend generally experience on increase its stock price and that a company don't pay dividend or lower it has a falling stock price trend. It seems to suggest that dividend so matter, is affecting the stock price of the company but several researcher argue the fact that dividend affect stock price, rather it is the information declaration of dividend that affect the stock price. It is fact that dividend work as a simple sufficient signal of management's interpretation of the firm's recent performance and its future prospects.

On the whole, over this period, the scale of operation has expanded many times which makes more earnings every year. The financial institutions are able to distribute divided and able to expand their activities with good earnings. But, it is yet to be done for the satisfaction of shareholders as well as overall growth of nation’s economy. On the basis of major findings of study, general conclusions are presented below:

1. There is no single financial indicator that has dominant role to determine MPPS. The same financial indicator that has significant role in the fixation of

MPPS for one company is not significant for another company. The degree of interrelationship of MPPS with different indicators varies from one company to another company. There is uniformity in the relationship of MPPS with various financial indicators like EPS (P/E Ratio) of selected banks and finance companies.

2. On the basis of average data of four years MPPS, EPS and DPS of sampled banks and finance companies are fluctuating, it means that the investors/ shareholders always invest their saving according to the DPS, EPS and MPPS of the concerned companies because these factor directly affect the demand and supply of shares which determine the stock price volatility.

3. Generally, changes in variables affect the market price of the stock. In Nepalese context, the investors are investing money in securities randomly without analyzing the companies financial and investment policies. The significantly varying price earning ratio of the sample companies prove the above statement.

4. The research shows that none of those banks and finance companies has well defined and appropriate practice regarding dividend policy and running with full capacity for the benefits for their shareholder and their stakehoder. The significant relationship between DPS and other financial indicators indicates that the practice on dividend policy of sample banks and finance companies are not uniform.

5. The major findings have also leads to conclude that the companies neglecting the major factors like earning capacity, earning position of firm liquidity position needs of the shareholders while paying dividend.

6. Based on ratio related to MPPS the sampled banks are some how uniform except finance companies. So, the investors prefer to invest in banks rather than finance companies.

7. Based on correlation analysis related to MPPS with DPS of all banks and finance companies have negative correlation except BFL, which has a very low correlation. This is due to the payment of a dividend payment.

8. Making decision on dividend practice and its policy is certainly one of the major decisions of financial management. It is right to say that dividend policy decision affects on the operation and prosperity of financial institutions as it has power to influence other two decisions, capital structure decision and investment decision. An investor expects two types of returns, capital gain and dividend income by investing in equity capital. So, that payment of dividend to shareholders is an effective way to attract new investors and maintain present investor to invest in shares.

Hence it is justified to hold that more practices and clearly effective managed dividend policy is required for all financial institutions to fulfill the shareholders expectation with that of corporate growth from internally generated funds. So the funds which could not be used due to lack of investment opportunities would be better as divided, since shareholders have investment opportunities in financial institutions

5.3 Recommendations

Based on the findings, the suggestions for future guidelines are presented here. There is no doubt that these measures are helpful to improve the existing condition of financial institutions as well as other organizations of Nepal. These suggestions are as follows:

1. Interest of Shareholders

Issue of stock dividend decreases market value per share and earning per share given all other thing constant. And distribution of cash dividend also reduces market value per share but doesn't effect earning per share holding all other thing constant. So, due to this reason common shareholders should be given a choice whether they prefer stock dividend or cash dividend. Therefore, all the financial institutions are suggested to take care regarding the interest of shareholders.

2. Consideration of Investment Policy of Companies

Investors are those who provide capital resources to the companies. They want to maximize earnings of their investment in capital market therefore the investors should

be aware to investment policy which will be helpful to determine the price volatility of share through EPS, DPS and demand & supply characteristics. Finally it can be said that investment should based on MPPS and DPS for their expected return and based on EPS for risk of the company. Select the company with higher risk adjustment factor of company than the market.

3. Adaptation of Precise Dividend Strategy

The banks and finance companies should define a clear dividend strategy whether the financial institution is gong to adopt stable dividend policy, constant payout ration or low regular plus extra dividends. The clearly defined policy can win the confidence of the investors than those, which do not have. The banks and finance companies should follow them strictly in normal condition. If there is lack of clearly defined dividend strategy, so many problems or inconveniences occur to the investors and organizations itself.

4. Focus on Dividend Distribution

Most of the investors are expecting a quick return of their investment rather than holding them for a long term due to high risk which increases as the investment period increases. So, the distribution of dividend as much as the firm can should be a prime concern.

5. Government Policy to Improve the Efficiency of Financial Institutions

As financial institutions are assisting to promote the capital market and improve the economic condition of nation through collecting the scattered resources and utilizing them into productive ways. The government should provide facilities to improve the efficiency of the financial institutions and reduce the interference in their daily affair. as the investment period increases. So, the distribution of dividend as much as the firm can should be a prime concern.

6. Encourage the Institutional Investors

Based on the findings and conclusions present research recommend to few concerned authorities like practitioners, regulatory bodies, investors/ shareholders, brokers etc. it is necessary to make a better information disclosure system in Nepalese capital market. The concerned authorities should have best mechanism of supervision and control of artificial market price and price fluctuation on market. To prevent these factors concerned authorities should make more effective for healthy practices of price in Nepalese capital market.

7. Agency Relationship between Shareholders and Managers

The managers should be able to perform their duties and responsibilities to protect shareholders interest. They mustn't show their desire to operate the companies in their own way. The managers must fulfill the shareholders wealth by maximization of shareholders wealth. Maximizing the shareholders wealth can maximize the value of firm, which is measured by the market price of the firm's common stock. So, manager's action to maximize shareholders wealth should be accordingly EPS, P/E ratio, use of debt and doing practice on dividend policy.

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APPENDIX – 1

Financial Indicator of sample selected Banks & Financial Companies under the period of the study.

Banks:

Earning per Share (EPS) – Nrs

Bank	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
EBL	78.42	91.82	99.99	100.16	92.6	8.85	9.56
KBL	22.70	16.35	22.04	24.24	21.33	2.98	13.99
SBL	15.88	17.29	22.89	21.99	19.51	2.99	15.32

Dividend per Share (DPS) – Nrs

Bank	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
EBL	10	20	30	30	22.50	8.29	36.84
KBL	1.05	0.53	0.55	12	3.53	4.89	138.43
SBL	0.79	0.79	0.79	8.42	2.70	3.30	122.34

Dividend Pay out Ratio (DPR) - %

Bank	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
EBL	0.13	0.22	0.30	0.30	0.24	0.07	29.47
KBL	0.05	0.03	0.02	0.50	0.15	0.20	133.33
SBL	0.05	0.05	0.03	0.38	0.13	0.15	114.51

Price Earning Ratio (P/E Ratio) - %

Bank	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
EBL	30.99	34.11	24.55	16.27	26.48	6.83	25.79
KBL	36.56	61.47	31.76	19.31	37.28	15.32	41.10
SBL	48.98	63.04	43.70	20.19	43.98	15.45	35.13

Earning Yield (EY) -%

Bank	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
EBL	0.03	0.03	0.04	0.06	0.04	0.01	30
KBL	0.03	0.02	0.03	0.05	0.032	0.01	36.92
SBL	0.02	0.02	0.02	0.05	0.028	0.013	47.27

Dividend Yield (DY) - %

Bank	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
EBL	0.004	0.01	0.01	0.02	0.011	0.001	9.09
KBL	0.001	0.001	0.001	0.03	0.008	0.013	152.36
SBL	0.001	0.001	0.001	0.02	0.006	0.008	139.13

Market Price per Share (MPPS) – Nrs

Bank	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
EBL	2430	3132	2455	1630	2411.75	532	22.06
KBL	830	1005	700	468	750.75	195.86	26.09
SBL	778	1090	1000	444	828	249.09	30.08

Net Worth per Share (NWPS) – Nrs

Bank	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
EBL	280.82	321.77	345.23	331.99	319.95	24.08	7.52
KBL	137	128	137	136.73	134.68	3.86	2.87
SBL	132.28	129.03	134.29	146.44	135.51	6.58	4.86

Financial Companies:

Earning per Share (EPS) – Nrs

FC	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
BFL	12.62	18.82	23.91	29.04	21.10	6.08	28.82
UFL	34.97	17.77	24.50	12.12	22.34	8.51	38.08
MFL	25.37	24.88	29.07	9.81	22.28	7.38	33.12

Dividend per Share (DPS) – Nrs

FC	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
BFL	0.53	0.99	-	1.58	0.78	1.16	149.68
UFL	11.84	1.05	0.66	13.16	6.68	5.84	87.46
MFL	1.12	-	24	7.75	8.22	9.58	116.58

Dividend Pay out Ratio (DPR) - %

FC	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
BFL	0.04	0.05	-	0.05	0.035	0.021	58.86
UFL	0.34	0.06	0.03	1.09	0.380	0.427	112.37
MFL	0.04	-	0.83	0.79	0.415	0.396	95.42

Price Earning Ratio (P/E Ratio) - %

FC	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
BFL	15.85	54.83	43.15	26.86	35.17	17.94	42.48
UFL	11.89	52.60	33.22	24.25	30.49	14.84	48.67
MFL	15	39	0	29.25	20.81	14.74	70.82

Earning Yield (EY) - %

FC	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
BFL	0.06	0.02	0.02	0.04	0.035	0.017	48.57
UFL	0.08	0.02	0.03	0.04	0.043	0.023	54.12
MFL	0.07	0.02	0	0.03	0.03	0.025	83.33

Dividend Yield (DY) - %

FC	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
BFL	0.003	0.001	0	0.002	0.0015	0.001	66.67
UFL	0.03	0.001	0.001	0.04	0.018	0.017	96.54
MFL	0.003	0	0	0.03	0.008	0.013	152.73

Market Price per Share (MPPS) – Nrs

FC	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
BFL	200	1032	1032	780	761	339.84	44.66
UFL	416	935	814	294	614.75	266.76	43.39
MFL	372	1191	-	288	462.75	442.51	95.63

Net Worth per Share (NWPS) – Nrs

FC	07/08	08/09	09/10	010/11	Mean	Std. Dev	C.V.
BFL	130.85	136.76	157.21	166.91	147.93	14.69	9.93
UFL	148.17	150.91	137.69	110.30	136.77	16.06	11.74
MFL	143.12	140.45	138.75	110.89	133.30	13.03	9.77

APPENDIX – 2

Listed Commercial Banks in the Securities Board (NEPSE)

S. No.	Names	Estd. Date (A.D.)	Head Office
1	Nepal Bank Limited	1937	Kathmandu
2	Rastriya Banijya Bank	1966	Kathmandu
3	NABIL Bank Limited	1984	Kathmandu
4	Nepal Investment Bank Limited	1986	Kathmandu
5	Agricultural Development Bank	1966	Kathmandu
6	Standard Chartered Bank Nepal Limited.	1987	Kathmandu
7	Himalayan Bank Limited	1993	Kathmandu
8	Nepal SBI Bank Limited	1993	Kathmandu
9	Nepal Bangladesh Bank Limited	1993	Kathmandu
10	Everest Bank Limited	1994	Kathmandu
11	Bank of Kathmandu Limited	1995	Kathmandu
12	Nepal Credit and Commerce Bank Limited	1996	Rupendehi
13	Lumbini Bank Limited	1998	Chitawan
14	Nepal Industrial & Commercial Bank Limited	1998	Morang
15	Machhapuchhre Bank Limited	2000	Pokhara
16	Kumari Bank Limited	2001	Kathmandu
17	Laxmi Bank Limited	2002	Birgunj
18	Siddhartha Bank Limited	2002	Kathmandu
19	Global Bank Ltd.	2007	Birgunj
20	Citizens Bank International Ltd.	2007	Kathmandu
21	Prime Commercial Bank Ltd	2007	Kathmandu
22	Sunrise Bank Ltd.	2007	Kathmandu
23	Bank of Asia Nepal Ltd.	2007	Kathmandu
24	Development Credit Bank Ltd.	2008	Kathmandu
25	NMB Bank Ltd.	2008	Kathmandu
26	KIST Bank Ltd.	2009	Kathmandu
27	Janata Bank Limited	2010	Kathmandu
28	Mega Bank Limited	2010	Kathmandu
29	Commerz and Trust Bank Nepal Ltd.	2010	Kathmandu
30	Civil Bank Limited	2011	Kathmandu
31	Century Bank Limited	2011	Kathmandu
32	Sanima Bank Limited	2011	Kathmandu

Source: Periodically Published by Nepal Stock Exchange, 2011/12

Source :(http:/www.nepalstock.com)

Source: Banking and Financial Statistics, November, 2012

APPENDIX - 3

Listed Finance Companies in the Security Board (NEPSE)

S.No.	Name of Finance Companies	Operation Date (A.D)
1	Nepal Finance and Saving Co. Ltd.	1993/01/06
2	NIDC capital markets Ltd.	1993/01/26
3	National Finance Co. Ltd.	1993/05/07
4	Nepal Share Markets Co. Ltd.	1993/10/19
5	Annapurna Finance Co. Ltd.	1993/09/30
6	Kathmandu Finance Co. Ltd.	1994/11/10
7	Peoples Finance Ltd.	1993/04/15
8	Union Finance Co. Ltd.	1995/12/26
9	Citizen Investment Trust	2047/11/04 B.S
10	Nepal Aawas Bikash Beeta Co. Ltd.	1992/07/26
11	Narayani Finance Ltd.	1995/03/08
12	Yeti Finance Co. Ltd.	1995/07/23
13	Gorkha Finance Co. Ltd.	1995/03/12
14	Shamjana Finance Co. Ltd.	1995/05/03
15	Universal Finance and Capital Markets Ltd.	1995/04/27
16	Nepal Housing and Merchant Finance Ltd.	1995/04/11
17	General Finance Ltd.	1996/02/02
18	Mahalaxmi Finance Ltd.	1995/11/26
19	Lalitpur Finance Co. Ltd.	1995/12/12
20	Goodwill Finance and Investment Co. Ltd	1995/05/16
21	Pashchimanchal Finance Co. Ltd.	1995/04/09
22	Pokhara Finance Co. Ltd.	1997/03/016
23	Lumbini Finance Ltd.	1995/06/26
24	Nepal Mer. Banking & Finance Ltd.	1996/11/26
25	Siddartha Finance Ltd.	1995/05/25
26	Alpic Everest Finance Co. Ltd.	1996/07/16
27	Nepal Bangladesh Fin. & Leasing Co. Ltd.	1999/04/18
28	United Finance Ltd.	1996/01/25
29	International Leasing & Finance Co. Ltd.	1995/10/31
30	Shree Investment Finance Co. Ltd.	1995/06/01
31	Central Finance Co. Ltd.	1997/04/14
32	Nepal Sreelanka Merchant Bank Ltd.	1996/02/04
33	Premier Finance Co. Ltd.	1997/05/08
34	Nava Durga Finance Co. Ltd.	1997/02/09
35	Butwal Finance Ltd.	1998/06/21
36	Janaki Finance Ltd.	1997/03/07
37	Standard Finance Ltd.	1995/07/23
38	Om Finance Ltd.	2000/09/17
39	Cosmic Merchant Banking & Finance Ltd.	2000/11/20
40	Fewa Finance Co. Ltd.	2003/04/30

41	KIST Merchant Banking & Finance Ltd.	2003/02/21
42	World Merchant Bank Ltd.	2001/08/10
43	Birgunj Finance Ltd.	2003/08/21
44	Capital Merchant Banking & Finance Ltd.	2002/02/01
45	Everest Finance Ltd.	2003/07/02
46	Prudential Bittiya Sanstha Ltd.	2003/06/06
47	Shrijana Finance Ltd.	1999/12/14
48	Royal Merchant Banking and Finance co.Ltd	2002//02/14
49	Guheshwori Merchant Banking & Finance Ltd.	2002/06/13
50	IME Financial Institution Ltd.	2005/06/28
51	Bhajuratna Finance & Saving Co. Ltd.	1996/01/09
52	Patan Finance Ltd.	2002/06/18
53	Imperial Financial Institution Ltd.	2006/03/08
54	Civil Merchant Bittiya Sanstha Ltd.	2005/09/18
55	ICFC Bittiya Sanstha Ltd	2003/06/14
56	Sagarmatha Merchant Banking and Finance Ltd.	2005/08/29
57	Sikhar Finance Ltd.	2005/09/15
58	Prabhu Finance Co. Ltd.	2006/02/16
59	Kuber Merchant Finance Ltd.	20906/03/24
60	Nepale Express Finance Ltd.	2006/05/04
61	Valley Finance Ltd.	2006/05/11
62	Seti Bittiya Sanstha Ltd.	2006/06/07
63	Hama Merchant and Finance Ltd.	2006/06/16
64	Rerliable Finance Ltd.	2006/09/06
65	Lord Buddha Finance Ltd.	2006/11/19
66	Api Finance Ltd.	2007/04/25
67	Nameste Bittiya Sanstha Ltd.	2007/07/07
68	Kaski Finance Ltd.	2007/07/30
69	Suryadarshan Finance Co. Ltd.	2007/07/30
70	Zenith Finance Ltd.	2007/10/08
71	Unique Financial Institution Ltd.	2007/10/12
72	Manjushree Finance Institution Ltd.	2007/10/15
73	Swostik Merchant Finance Company Ltd.	2007/10/16
74	Subhalaxmi Finance Ltd.	2007/11/11
75	Jebil's Finance Ltd.	2009/10/28
76	Reliance Finance Ltd.	2009/12/03
77	Lotus Investment Finance Ltd.	2010/04/11
78	Baibhab Finance Ltd.	2011/01/24
79	Bhaktapur Finance Ltd.	2011/02/08

Source: Periodically Published by Nepal Stock Exchange, 2010/11

Source :(htp:/www.nepalstock.com)

Source: Banking and Financial Statistics, November, 2012

APPENDIX - 4

Calculation of correlation between EPS and DPS of EBL

Year	EPS (X)	DPS (Y)	X^2	Y^2	XY
2007/08	78.42	10	6149.70	100	784.20
2008/09	91.82	20	8430.91	400	1836.40
2009/10	99.99	30	9998.00	900	2999.70
2010/11	100.16	30	10032.03	900	3004.80
	$\sum X=370.39$	$\sum Y=90$	$\sum X^2 = 34610.63$	$\sum Y^2 = 2300$	$\sum XY = 8625.10$

Where N = 4, r =?

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

$$r = \frac{(4 \times 8625.10) - (370.39 \times 90)}{[(4 \times 34610.63) - (370.39)2\,]^{\frac{1}{2}}\,[(4 \times 2300) - (90)^2\,]^{\frac{1}{2}}}$$

$$r = \frac{1165.30}{(35.41 \times 33.17)}$$

r = 0.99

Similarly the correlation between EPS and DPS of other banks and finance companies are also calculated. The calculated values are presented in the related part of the thesis.

APPENDIX – 5

Calculation of the simple regression of dependent variable MPPS on DPS of EBL

Year	DPS (X)	MPPS (Y)	X^2	Y^2	XY
2007/08	10	2430	100	5904900	24300
2008/09	20	3120	400	9809424	62640
2009/10	30	2455	900	6027025	73650
2010/11	30	1630	900	2656900	48900
	$\sum X=90$	$\sum Y=9647$	$\sum X^2 = 2300$	$\sum Y^2 =$ 24398249	$\sum XY =$ 209490

Where N = 4

We have $Y = a + bX$……(i)

$\sum Y = Na + b\sum X$……(ii)

$\sum XY = a\sum X + b\sum X^2$……(iii)

Putting the value of $\sum Y$, $\sum X$, $\sum XY$, $\sum X^2$ $\sum X^2$ and N in above equation (ii) and (iii)

then we get,

9647 = 4a + 90b……(iv)

209490 = 90a + 2300b……..(v)

Now solving this equation (iv) and (v) then we get,

a = 3030.91

b = - 27.52

Similarly the regression of other banks and finance companies are also calculated. The calculated values are presented in the related part of the thesis.

APPENDIX –6

Calculation of the multiple regressions of dependent variable MPPS on DPS and EPS of Everest Bank Limited (EBL)

We have $X_1 = a + b_1 X_2 + b_2 X_3$…….(i)

Given,

Mean of Market Price per Share ($\overline{X}_1$) = 2411.75

Mean of Dividend per Share ($\overline{X}_2$) = 22.50

Mean of Earning per Share ($\overline{X}_3$) = 92.60

Standard deviation of Market price per Share (σ_1) =532

Standard deviation of Dividend per Share (σ_2) =8.29

Standard deviation of Earning per Share (σ_3) =8.85

Correlation between MPPS and DPS (r_{12}) =-0.43

Correlation between DPS and EPS (r_{23}) =0.99

Correlation between MPPS and EPS (r_{13}) =-0.34

Regression Constant (a) =?

Regression Coefficient of Dividend per Share (b_1) =?

Regression Coefficient of Earning per Share (b_2) =?

X_1 = Market Price per Share

X_2 = Dividend per Share

X_3 = Earning per Share

We have $X_1 = a + b_1 X_2 + b_2 X_3$…….(i)

We know,

$$X_1 - \overline{X}_1 = \frac{\sigma_1 (r_{12} - r_{23} \times r_{13})}{\sigma_2 (1 - r^2_{23})} \times (X_2 - \overline{X}_2) + \frac{\sigma_1 (r_{13} - r_{23} \times r_{12})}{\sigma_3 (1 - r^2_{23})} \times (X_3 - \overline{X}_3)$$

Putting the value in above equation then we get,

$$X_1 - 2411.75 = \frac{532 (-.43 - .99 \times -.34)}{8.29 (1 - 0.99^2)} (X_2 - 22.5) + \frac{532 (-.34 - .99 \times -.43)}{8.85 (1 - 0.99^2)} (X_3 - 92.60)$$

Now solving this equation then we get,

$X_1 = 33156 – 301.10 X_2 – 258.77 X_3$

MPPS = 33156 – 301.10 DPS_2 – 258.77 EPS

Regression Constant (a) = 33156

Regression Coefficient of Dividend per Share (b_1) = - 301.10

Regression Coefficient of Earning per Share (b_2) = - 258.77

APPENDIX –7

Calculation of the multiple regressions of dependent variable MPPS on DPS and EPS of Kumari Bank Limited (KBL)

Given,

Mean of Market Price per Share ($\overline{X}_1$) =750.75

Mean of Dividend per Share ($\overline{X}_2$) =3.53

Mean of Earning per Share ($\overline{X}_3$) =21.33

Standard deviation of Market price per Share (σ_1) =195.86

Standard deviation of Dividend per Share (σ_2) =4.89

Standard deviation of Earning per Share (σ_3) =2.98

Correlation between MPPS and DPS (r_{12}) =-0.84

Correlation between DPS and EPS (r_{23}) =0.58

Correlation between MPPS and EPS (r_{13}) =-0.86

Regression Constant (a) =?

Regression Coefficient of Dividend per Share ($b_{1)}$ =?

Regression Coefficient of Earning per Share (b_2) =?

X_1 = Market Price per Share

X_2 = Dividend per Share

X_3 = Earning per Share

We have $X_1 = a + b_1 X_2 + b_2 X_3$…….(i)

We know,

$$X_1 - \overline{X}_1 = \frac{\sigma_1 (r_{12} - r_{23} \times r_{13})}{\sigma_2 (1 - r^2_{23})} \times (X_2 - \overline{X}_2) + \frac{\sigma_1 (r_{13} - r_{23} \times r_{12})}{\sigma_3 (1 - r^2_{23})} \times (X_3 - \overline{X}_3)$$

Putting the value in above equation then we get,

$$X_1 - 750.75 = \frac{195.86 (-.84 - .58 \times .86)}{4.89 (1 - 0.58^2)} (X_2 - 3.53) + \frac{195.86 (-.86 - .58 \times .84)}{2.98 (1 - 0.58^2)} (X_3 - 21.33)$$

Now solving this equation then we get,

$X_1 = 1610.83 – 20.595 X_2 - 36.914 X_3$

MPPS = 1610.83 – 20.595 DPS – 36.914 EPS

Regression Constant (a) = 1610.83

Regression Coefficient of Dividend per Share (b_1) = -20.595

Regression Coefficient of Earning per Share (b_2) = - 36.914

APPENDIX –8

Calculation of the multiple regressions of dependent variable MPPS on DPS and EPS of Siddhartha Bank Limited (SBL)

Given,

Mean of Market Price per Share ($\overline{X}_1$) = 828

Mean of Dividend per Share ($\overline{X}_2$) = 2.70

Mean of Earning per Share ($\overline{X}_3$) = 19.51

Standard deviation of Market price per Share (σ_1) = 249.09

Standard deviation of Dividend per Share (σ_2) = 3.30

Standard deviation of Earning per Share (σ_3) = 2.99

Correlation between MPPS and DPS (r_{12}) = -0.89

Correlation between DPS and EPS (r_{23}) = 0.48

Correlation between MPPS and EPS (r_{13}) = -0.25

Regression Constant (a) =?

Regression Coefficient of Dividend per Share ($b_{1)}$ =?

Regression Coefficient of Earning per Share (b_2) =?

X_1 = Market Price per Share

X_2 = Dividend per Share

X_3 = Earning per Share

We have $X_1 = a + b_1 X_2 + b_2 X_3$…….(i)

We know,

$$X_1 - \overline{X}_1 = \frac{\sigma_1 (r_{12} - r_{23} \times r_{13})}{\sigma_2 (1 - r^2_{23})} \times (X_2 - \overline{X}_2) + \frac{\sigma_1 (r_{13} - r_{23} \times r_{12})}{\sigma_3 (1 - r^2_{23})} \times (X_3 - \overline{X}_3)$$

Putting the value in above equation then we get,

$$X_1 - 828 = \frac{249.09 (-.89 - .48 \times -.25)}{3.30 (1 - 0.48^2)} (X_2 - 2.70) + \frac{249.09 (-.25 - .48 \times -.89)}{2.99 (1 - 0.48^2)} (X_3 - 19.51)$$

Now solving this equation then we get,

$X_1 = 657.67 – 75.52 X_2 + 19.182 X_3$

MPPS = 657.67 – 75.52 DPS + 19.182 EPS

Regression Constant (a) = -657.67

Regression Coefficient of Dividend per Share ($b_{1)}$ = -75.52

Regression Coefficient of Earning per Share (b_2) = 19.182

APPENDIX –9

Calculation of the multiple regressions of dependent variable MPPS on DPS and EPS of Butwal Finance Limited (BFL)

Given,

Mean of Market Price per Share ($\overline{X}_1$) = 761

Mean of Dividend per Share ($\overline{X}_2$) = 0.78

Mean of Earning per Share ($\overline{X}_3$) = 21.10

Standard deviation of Market price per Share (σ_1) = 339.84

Standard deviation of Dividend per Share (σ_2) = 1.16

Standard deviation of Earning per Share (σ_3) = 6.08

Correlation between MPPS and DPS (r_{12}) =0.00124

Correlation between DPS and EPS (r_{23}) =0.43

Correlation between MPPS and EPS (r_{13}) =0.61

Regression Constant (a) =?

Regression Coefficient of Dividend per Share (b_1) =?

Regression Coefficient of Earning per Share (b_2) =?

X_1 = Market Price per Share

X_2 = Dividend per Share

X_3 = Earning per Share

We have $X_1 = a + b_1 X_2 + b_2 X_3$…….(i)

We know,

$$X_1 - \overline{X}_1 = \frac{\sigma_1 (r_{12} - r_{23} \times r_{13})}{\sigma_2 (1 - r^2_{23})} \times (X_2 - \overline{X}_2) + \frac{\sigma_1 (r_{13} - r_{23} \times r_{12})}{\sigma_3 (1 - r^2_{23})} \times (X_3 - \overline{X}_3)$$

Putting the value in above equation then we get,

$$X_1 - 761 = \frac{339.84 (.00124 - .43 \times .61)}{1.16 (1 - 0.43^2)} (X_2 - 0.78) + \frac{339.84 (.61 - .43 \times .00124)}{6.08 (1 - 0.43^2)} (X_3 - 21.10)$$

Now solving this equation then we get,

$X_1 = -57.18 - 80.89 X_2 + 41.77 X_3$

MPPS = -57.18 – 80.89 DPS + 41.77 EPS

Regression Constant (a) = -57.18

Regression Coefficient of Dividend per Share (b_1) = - 80.89

Regression Coefficient of Earning per Share (b_2) = 41.77

APPENDIX –10

Calculation of the multiple regressions of dependent variable MPPS on DPS and EPS of United Finance Limited (UFL)

Given,

Mean of Market Price per Share ($\overline{X}_1$) = 614.75

Mean of Dividend per Share ($\overline{X}_2$) = 6.68

Mean of Earning per Share ($\overline{X}_3$) = 22.34

Standard deviation of Market price per Share (σ_1) = 266.76

Standard deviation of Dividend per Share (σ_2) = 5.84

Standard deviation of Earning per Share (σ_3) = 8.51

Correlation between MPPS and DPS (r_{12}) = -0.98

Correlation between DPS and EPS (r_{23}) = 0.069

Correlation between MPPS and EPS (r_{13}) = -0.029

Regression Constant (a) =?

Regression Coefficient of Dividend per Share ($b_{1)}$ =?

Regression Coefficient of Earning per Share (b_2) =?

X_1 = Market Price per Share

X_2 = Dividend per Share

X_3 = Earning per Share

We have $X_1 = a + b_1 X_2 + b_2 X_3$…….(i)

We know,

$$X_1 - \overline{X}_1 = \frac{\sigma_1 (r_{12} - r_{23} \times r_{13}) * (X_2 - \overline{X}_2)}{\sigma_2 (1 - r^2_{23})} + \frac{\sigma_1 (r_{13} - r_{23} \times r_{12}) * (X_3 - \overline{X}_3)}{\sigma_3 (1 - r^2_{23})}$$

Putting the value in above equation then we get,

$$X_1 - 614.75 = \frac{266.76(-.98 - .069 \times -.029)(X_2 - 6.68)}{5.84 (1 - 0.069^2)} + \frac{266.76(-.029 - .069 \times -.98)(X_3 - 22.34)}{8.51 (1 - 0.069^2)}$$

Now solving this equation then we get,

$X_1 = 341.97 - 44.90 X_2 + 1.22 X_3$

MPPS = 341.97 - 44.90 DPS +1.22 EPS

Regression Constant (a) =341.97

Regression Coefficient of Dividend per Share ($b_{1)}$ = - 44.90

Regression Coefficient of Earning per Share (b_2) = 1.22

APPENDIX –11

Calculation of the multiple regressions of dependent variable MPPS on DPS and EPS of Mahalaxmi Finance Limited (MFL)

Given,

Mean of Market Price per Share ($\overline{X}_1$) = 462.75

Mean of Dividend per Share ($\overline{X}_2$) = 8.22

Mean of Earning per Share ($\overline{X}_3$) = 22.28

Standard deviation of Market price per Share (σ_1) = 442.51

Standard deviation of Dividend per Share (σ_2) = 9.58

Standard deviation of Earning per Share (σ_3) = 7.38

Correlation between MPPS and DPS (r_{12}) = -0.74

Correlation between DPS and EPS (r_{23}) = 0.25

Correlation between MPPS and EPS (r_{13}) = 0.05

Regression Constant (a) =?

Regression Coefficient of Dividend per Share ($b_{1)}$ =?

Regression Coefficient of Earning per Share (b_2) =?

X_1 = Market Price per Share

X_2 = Dividend per Share

X_3 = Earning per Share

We have $X_1 = a + b_1 X_2 + b_2 X_3$…….(i)

We know,

$$X_1 - \overline{X}_1 = \frac{\sigma_1 (r_{12} - r_{23} \times r_{13}) * (X_2 - \overline{X}_2)}{\sigma_2 (1 - r^2_{23})} + \frac{\sigma_1 (r_{13} - r_{23} \times r_{12}) * (X_3 - \overline{X}_3)}{\sigma_3 (1 - r^2_{23})}$$

Putting the value in above equation then we get,

$$X_1 - 462.75 = \frac{442.51(-.74 - .25 \times .05)}{9.58 (1 - .25^2)} (X_2 - 8.22) + \frac{442.51 (.05 - .25 \times -.74)}{7.38 (1 - .25^2)} (X_3 - 22.28)$$

Now solving this equation then we get,

$X_1 = 432.75 + 37.08 X_2 + 15.03 X_3$

MPPS = 432.75 + 37.08 DPS +15.03 EPS

Regression Constant (a) = 432.75

Regression Coefficient of Dividend per Share ($b_{1)}$ = 37.08

Regression Coefficient of Earning per Share (b_2) = 15.03

APPENDIX –12

Calculation of the ANOVA of Independent variable i.e. coefficient of multiple regression of selected commercial banks

Here, the factor of variation is banks (X_1, X_2 & X_3). We setup the hypothesis:

EBL (X_1)	KBL (X_2)	SBL (X_3)	X_1^2	X_2^2	X_3^2
-301.10	-20.60	-75.52	90661.21	424.15	5703.27
-258.77	-36.91	19.18	66961.91	1362.64	367.95
$\sum X_1$ = -559.87	$\sum X_2$ =-57.51	$\sum X_3$ =-56.34	$\sum X_1^2$ = 157623.12	$\sum X_2^2$ = 1786.80	$\sum X_3^2$ = 6071.22

Null Hypothesis (H_o): $u_1 = u_2 = u_3$i.e, all the banks are equally effective.

Alternative Hypothesis (H_1): At least two of the means are not equal. It means u_1, u_2 and u_3 are different.

Grand total (T) = $\sum X_1 + \sum X_2 + \sum X_3$ = -559.87 – 57.51 – 56.34 = -673.72

Correction factor (C.F) = (Grand total) $^2 \div$ n

Or, C.F = $(-673.72)^2 \div 6$

Correction factor (C.F) = 75649.10

Total sum of square (TSS) = $\sum X_1^2 + \sum X_2^2 + \sum X_3^2$ – C.F

Or, TSS = 157623.12 + 1786.80 + 6071.22 -75649.10

Total sum of square (TSS) = 89832.04

Sum of square between sample (SSC) = $(\sum X_1^2 \div n_1) + (\sum X_2^2 \div n_2) + (\sum X_3^2 \div n_3)$ – C.F

Or, SSC = (157623.12 ÷ 2) + (1786.80 ÷ 2) + (6071.22 ÷ 2) – 75649.10

Sum of square between sample (SSC) = 7091.47

Sum of square with in sample (SSW) = TSS – SSC

Or, SSW = 89932.04 – 7091.47

Sum of square with in sample (SSW) = 82740.57

Degree of freedom (d.f):

n_1=2, n_2=2 and n_3=2

Degree of freedom for between samples (V_1) = k - 1= 3 – 1 = 2

Degree of freedom for with in samples (V_2) = n – K = 6 – 3 = 3

n= $n_1+n_2+n_3$=2+2+2=6

ANOVA TABLE FOR ONE WAY CLASSIFIED

Sources of Variation (1)	d.f (2)	Sum of Square (3)	Mean Sum of Square (3÷2)	Variance Ratio (F)
Between Samples (Banks)	$v_{1=}2$	7091.47	7091.47÷2 = 3545.74	3545.74÷27580.19 = 0.13
With in Samples (Error)	$v_{1=}3$	82740.57	82740.57÷3 = 27580.19	
Total	5	89832.04		

Critical Value:

The tabulated (critical) value of F for degree of freedom ($v_{1=}2$, $v_{2=}3$) d.f at 5% level of significance is 9.55

Since the calculated F = 0.13 is less than the critical value 9.55, it is not significant. Hence we fail to reject null Hypothesis

Remark:

In this case, since mean sum of square between classes is less than mean sum of square with in classes. I need not calculate F and I conclude that the means (regression coefficient) X_1, X_2 & X_3 do not differ significantly. Hence, Null Hypothesis (H_o) regarded as true.

Conclusion:

$H_{o:}$ $u_1 = u_2 = u_3$ regarded as true and I conclude that there is no significant difference in independent variables at each of the Banks or all the three Banks MPS, DPS and EPS are equally effective.

APPENDIX –13

Calculation of the ANOVA of Independent variable i.e. coefficient of multiple regression of selected Finance Companies

Here, the factor of variation is banks (X_1, X_2 & X_3). We setup the hypothesis:

BFL (X_1)	UFL (X_2)	MFL (X_3)	X_1^2	X_2^2	X_3^2
80.89	-44.90	37.08	6543.19	2016.01	1374.93
41.77	1.22	15.03	1744.73	1.49	225.90
$\sum X_1$ = 122.66	$\sum X_2$ =-43.68	$\sum X_3$ =52.11	$\sum X_1^2$ = 8287.93	$\sum X_2^2$ = 2017.50	$\sum X_3^2$ = 1600.83

Null Hypothesis (H_o): $u_1 = u_2 = u_3$i.e, all the banks are equally effective.

Alternative Hypothesis (H_1): At least two of the means are not equal. It means u_1, u_2 and u_3 are different.

Grand total (T) = $\sum X_1 + \sum X_2 + \sum X_3$ = 122.66 – 43.68 + 52.11 = 131.09

Correction factor (C.F) = (Grand total) $^2 \div$ n

Or, C.F = $(131.09)^2 \div 6$

Correction factor (C.F) = 2864.10

Total sum of square (TSS) = $\sum X_1^2 + \sum X_2^2 + \sum X_3^2$ – C.F

Or, TSS = 8287.93 + 2017.50 + 1600.83 – 2864.10

Total sum of square (TSS) = 9042.15

Sum of square between sample (SSC) = $(\sum X_1^2 \div n_1) + (\sum X_2^2 \div n_2) + (\sum X_3^2 \div n_3)$ – C.F

Or, SSC = (8287.93 ÷ 2) + (2017.50 ÷ 2) + (1600.83÷ 2) – 2864.10

Sum of square between sample (SSC) = 3089.03

Sum of square with in sample (SSW) = TSS – SSC

Or, SSW = 9042.15 – 3089.03

Sum of square with in sample (SSW) = 5953.13

Degree of freedom (d.f):

n_1=2, n_2=2 and n_3=2

Degree of freedom for between samples (V_1) = k - 1= 3 – 1 = 2

Degree of freedom for with in samples (V_1) = n – K = 6 – 3 = 3

n= $n_1+n_2+n_3$=2+2+2=6

ANOVA TABLE FOR ONE WAY CLASSIFIED

Sources of Variation (1)	d.f (2)	Sum of Square (3)	Mean Sum of Square (3÷2)	Variance Ratio (F)
Between Samples (Banks)	$v_{1=}2$	3089.03	3089.03 ÷ 2 = 1544.51	1544.51 ÷ 1984.38 = 0.78
With in Samples (Error)	$V_{2=}3$	5953.13	5953.13 ÷ 3 = 1984.38	
Total	5	9042.15		

Critical Value:

The tabulated (critical) value of F for degree of freedom ($v_{1=}2$, $v_{2=}3$) d.f at 5% level of significance is 9.55

Since the calculated F = 0.78 is less than the critical value 9.55, it is not significant. Hence we fail to reject null Hypothesis.

Remark:

In this case, since mean sum of square between classes is less than mean sum of square with in classes. I need not calculate F and I conclude that the means (regression coefficient) X_1, X_2 & X_3 do not differ significantly. Hence, Null Hypothesis (H_o) regarded as true.

Conclusion: $H_{o:}$ $u_1 = u_2 = u_3$ regarded as true and I conclude that there is no significant difference in independent variables at each of the Banks or all the three Banks MPS, DPS and EPS are equally effective.