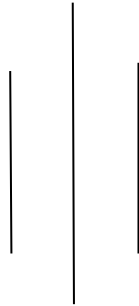


**IMPACT OF DIVIDEND POLICY ON MARKET PRICE
OF SHARE IN NEPALESE
COMMERCIAL BANKS**



A THESIS

Submitted By:

Samita Maharjan

People's Campus

Campus Roll No: 23/072

T.U Registration Number: 7-2-410-96-2012

Exam Roll No: - 2710021

A Thesis submitted to:

Office of Dean

Faculty of Management

Tribhuvan University

In partial fulfilment of the requirements for the

Degree of

Masters of Business Studies (M.B.S)

Kathmandu, Nepal

2021

RECOMMENDATION

This is to certify that the Thesis

Submitted by:

Samita Maharjan

Entitled

**“Impact of Dividend Policy on Market Price of Share in
Nepalese Commercial Banks”**

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

.....
Rajan Bilas Bajracharya Dr. Gopal Krishna Shrestha Chhatra Mangal Bajracharya
(Thesis Supervisor) (HOD, Research) (Campus Chief)

VIVA-VOCE SHEET

We have conducted the viva –voce of the thesis presented

By

Samita Maharjan

Entitled

**“Impact of Dividend Policy on Market Price of Share in
Nepalese Commercial Banks”**

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

of the requirement for the

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

Viva-Voce Committee

1. Chairperson, Research Committee
2. Member (Thesis Supervisor)
3. Member (External Expert)

DECLARATION

I hereby declare that the work reported in this thesis entitled “**Impact of Dividend Policy on Market Price of Share in Nepalese Commercial Banks**” submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Master’s Degree in Business Study (M.B.S.) under the supervision of Prof. **Rajan Bilas Bajracharya** of People’s Campus.

.....
Samita Maharjan

Researcher

People’s Campus

T.U Registration Number: 7-2-410-96-2012

Campus Roll No: 23/072

Exam Roll No: -2710021

Year: 2021

ACKNOWLEDGMENT

I express my sincere gratitude to all the authors and learned personalities, whose writings have been cited in this study. I also express my sincere gratitude to those authors whose writings though are not cited but helped and inspired me in making my vision clear and reaching on conclusion.

I extend my deep sense of indebtedness to my respected supervisor **Rajan Bilas Bajracharya** Sir for his precious guidelines, inspiration and Valuable suggestion thoroughly during the period of this research. Without his valuable insight, I would not think of accomplishment of this thesis. Nepal Stock Exchange Ltd. and Security Board of Nepal shown providing necessary data. I also express my sincere gratitude to Campus Chief **Chhatra Mangal Bajracharya** Sir for his remarkable help and guidance, without which this thesis would not have come in this form. I also express my gratitude to all the respected branch managers and bankers whose valuable inputs have helped me to carry this study smoothly and reach to my destination.

I express my heartfelt gratitude to my parents and all my family members who always inspired me to complete this journey of higher education from the benchmark of my academic qualification that I had. Without their encouragement and inspiration, my higher education could not have been fulfilled.

Finally, I am equally grateful to Gyanu Maharjan for her effort in designing and printing my thesis and timely encouragement in every step as well to all, who had supported me to complete this study.

Thank you.

Samita Maharjan

TABLE OF CONTENTS

TITTLE	PAGE NO.
Recommendation	I
Viva-Voce sheet	II
Declaration	III
Acknowledgements	IV
Table of Contents	V
List of Tables	VIII
List of Figures	IX
Abbreviations	X
CHAPTER-1 INTRODUCTION	1-9
1.1 Background of the Study	1
1.2 Statement of Problems	6
1.3 Objectives of the Study	7
1.4 Significance of the Study	7
1.5 Limitations of the Study	8
1.6 Chapter Plan	9
CHAPTER- II REVIEW OF LITERATURE	10-42
2.1 Conceptual Framework	10
2.1.1 Forms of Dividend	13
2.1.2 Theories of Dividend	15
2.1.3 Factors influencing Dividend Policy	20
2.2 Review of Major International Studies	25
2.2.1 Review of Journals	25
2.2.2 Review of Articles	33
2.2.3 Review of Previous Thesis	37

2.3 Organizations under Study	41
2.4 Research Gap	44

CHAPTER – III RESEARCH METHODOLOGY 45-59

3.1 Introduction	45
3.2 Research Design	45
3.3 Nature and Source of Data	46
3.4 Population and Samples	46
3.5 Period of the Study	47
3.6 Analysis of Data	47
i. Financial Tools	47
ii. Statistical Tools	51

CHAPTER-IV PRESENTATION AND ANALYSIS OF DATA 60-94

4.1. Presentation of Financial Variables	60
4.1.1. Earnings Per Share (EPS)	60
4.1.2. Dividend Per Share (DPS)	62
4.1.3. Dividend Payout Ratio (DPR)	64
4.1.4. Market Price Per Share (MPS)	66
4.1.5. Price Earnings Ratio (P/E Ratio)	68
4.1.6. Earning Yield (EY)	70
4.1.7. Dividend Yield (DY)	72
4.1.8. Net Worth Per Share (NWPS)	74
4.2. Statistical Tools	76
4.2.1. Correlation Analysis	76
4.2.2. Regression Analysis	81
4.2.2.1. MPS on EPS	81
4.2.2.2. MPS on DPS	82
4.2.2.3. MPS on DPR	83
4.2.2.4. MPS on DY	84
4.2.2.5. DPS on EPS	85
4.2.2.6. DPS on NWPS	86

4.2.2.7. MPS on EPS and DPR	87
4.2.2.8. MPS on P/E Ratio and DPS	89
4.3 Major Findings	90
4.4 Discussion	92

CHAPTER –V SUMMARY, CONCLUSION AND

RECOMMENDATION

95-101

5.1 Summary	95
5.2 Conclusion	96
5.3 Recommendations	100

REFERENCES

APPENDIX

LIST OF TABLES

PAGE NO.

Table No. 1 Analysis of EPS	60
Table No. 2 Analysis of DPS	62
Table No. 3 Analysis of D/P Ratio	64
Table No. 4 Analysis of MPS	66
Table No. 5 Price Earnings Ratio (PE/Ratio))	68
Table No. 6 Earning Yield (EY)	70
Table No. 7 Divided Yield (DY)	72
Table No. 8 Net Worth Per Share (NWPS)	74
Table No. 9 Correlation Coefficient SCBNL	76
Table No. 10 Correlation Coefficient of LBL	77
Table No. 11 Correlation Coefficient of NABIL	78
Table No. 12 Correlation Coefficient of MEGA	79
Table No. 13 Correlation Coefficient of NBBL	80
Table No. 14 Regression Analysis of MPS on EPS	81
Table No. 15 Regression Analysis of MPS on DPS	82
Table No. 16 Regression Analysis of MPS on DPR	83
Table No. 17 Regression Analysis of MPS on DY	84
Table No. 18 Regression Analysis of DPS on EPS	85
Table No. 19 Regression Analysis of DPS on NWPS	86
Table No. 20 Regression Analysis of MPS on EPS and DPR	87
Table No. 21 Regression Analysis of MPS on P/E and DPS	89

LIST OF FIGURES

PAGE NO.

Figure. 1.1 Conceptual Framework	11
Figure 2.1 EPS and DPS relationship under Residual Policy	16
Figure 2.2 EPS and DPS relationship under Constant Dividend per Share Policy	18
Figure 2.3 EPS and DPS relationship under Constant Dividend Payout Ratio	19
Figure 4.1 Earning Per Share of the banks	61
Figure 4.2 Dividend Per Share of the banks	63
Figure 4.3 Dividend Payout Ratio of the banks	65
Figure 4.4 Market Price Per Share of the banks	67
Figure 4.5 Price Earnings Ratio of the banks	69
Figure.4.6 Earning Yield of the banks	71
Figure 4.7 Dividend Yield of the banks	73
Figure 4.8 Net Worth Per Share of the bank	75

ABBREVIATION

NABIL: Nepal Arab Bank Limited
NRB : Nepal Rastra Bank
NBBL : Nepal Bangladesh Bank Limited
SCBNL: Standard Chartered Bank Nepal Limited
MEGA: Mega Bank Limited
LBL : Laxmi Bank Limited
DPS : Dividend Per Share
EPS : Earning Per Share
MPS : Market Price of Stock
DPR : Dividend payout Ratio
PER : Price Earnings Ratio
NWPS : Net Worth Per Share
DY : Dividend yield
EY : Earning Yield
i.e. : That is
Vol. : Volume
T.U. : Tribhuvan University
NEPSE: Nepal Stock Exchange
S. D : Standard Deviation
C.V : Coefficient of Variation
r : Coefficient of Correlation

CHAPTER-I

INTRODUCTION

1.1. Background of the Study

Dividend policy is one of the most important financial policies, not only from the viewpoint of the company, but also from that of the shareholders, the consumers, the workers, regulatory bodies and the Government. For a company, it is a pivotal policy around which other financial policies rotate. Value of the corporate securities depends to a great extent on dividend and, therefore, in deciding upon the financial structure of company, dividend has to be assigned due to consideration. Dividends are payments made by corporations to its shareholder members. It is the portion of corporate profits paid out to stockholders. When a corporation earns a profit or surplus, that money can be put to two uses: it can either be re-invested in the business (called retained 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 a dividend.

At the end of each year, every publicly traded company has to decide whether to return cash to its stockholders and, if so, how much in the form of dividends. The owner of a private company has to make a similar decision about how much cash he or she plans to withdraw from the business and how much to reinvest. This is the dividend decision, and we begin this chapter by providing some background on three aspects of dividend policy. One is a purely procedural question about how dividends are set and paid out to stockholders. The second is an examination of widely used measures of how much a firm pays in the dividends. The third is an empirical examination of some patterns that firms follow in dividend policy. Having laid this groundwork, we look at three schools of thought on dividend policy. The dividend irrelevance school believes that dividends do not really matter because they do not affect firm value. This argument is based on two assumptions. The first is that there is no tax disadvantage to an investor to receiving dividends, and the second is that firms can raise funds in capital markets for new investments without bearing significant

issuance costs. The proponents of the second school feel that dividends are bad for the average stockholder because of the tax disadvantage they create, which results in lower value. Finally, there are those in a third group who argue that dividends are clearly good because stockholders (at least some of them) like them and react accordingly when dividends are increased. Although dividends have traditionally been considered the primary approach for publicly traded firms to return cash or assets to their stockholders, they comprise only one of many ways available to the firm to accomplish this objective. In particular, firms can return cash to stockholders through equity repurchases, where the cash is used to buy back outstanding stock in the firm and reduce the number of shares outstanding. All the business corporations are operated for profit. Less or more their objective is profit earning. Traditionally the only one objective of firm used to be profit maximization.

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

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

The globalization and liberalization process have surmounted a worldwide pressure on planners and policy makers to design for the rapid growth. This requires a sufficient and high amount of investment, which is possible through canalization of what the people save.

Realizing the same, the government has given primary attention on the development of the banking sector, so that it performs two major responsibilities:

- Generating income through the promotion of trade, commerce and industry.
- Trapping the public saving to raise the sufficient funds for investment.

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

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

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

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

The commercial banking industry has remarkably developed in a short span of time of one decade. This development has helped to mobilize the internal resources as well as the external funds of foreign investors for the economic development of the nation.

The advantage of joint venture and private banks in Nepal has many consequences apart from performing the role of commercial banks. They introduced new philosophy and modern banking practices in Nepal. The growth of joint venture banks increased dramatically after the restoration of democracy when government adopted liberal and market-oriented policy. The establishment of joint ventures after restoration of democracy in 1990 has been contributing to a gradual development of banking culture i.e. issuing credit cards, debit cards, tele banking, 24 hours banking service, other service etc. This has drawn a heavy attention from non-business or general public towards commercial banks.

Dividend is one of the major reasons for which public are interested to invest money on the shares of bank or other institution. It refers to the portion of earnings that is distributed to the shareholders in return to their investment in the shares. Normally, that business, which is running at profit, is capable to pay dividend. The amount which is distributed as dividend should be adequate to meet the normal expectations of shareholders. Dividend can be paid in cash, shares and securities or a composition of these. There is a reciprocal relationship between retained earnings and cash dividend. So, cash dividend payout reduces the total amount of internal financing. In this section, we consider three issues. First, how do firms decide how much to pay in dividends, and how do those dividends actually get paid to the stockholders? We then consider two widely used measures of how much a firm pays in dividends, the dividend payout ratio and the dividend yield. We follow up by looking at some empirical evidence on firm behavior in setting and changing dividends.

In theory of finance, dividend decision plays a very crucial role. Dividend decision however is still a crucial as well as controversial area of managerial finance. It is more technical area of finance in the sense that it is complex on having numerous implications for the firm. Dividend policy may affect the area such as financial structure of the firm, flow of funds, stock prices, investor's satisfaction growth of the firm etc. Like other major decisions of the firm i.e. investment and financing decision, the dividend decision has major role in any organization.

The dividend payout reduces the amount of earnings retained in the firm and affect total amount of internal financing. For expansion of every firm, there should be extra financing. This financing can be made either through the external source or internal. The external source includes the issue of shares, bonds, debentures etc. Whereas the internal source is the earnings retained after the payment of dividend. Thus, the amount of internal financing is highly dependent upon the dividend policy adopted by the firm. For the existing firm, it is very necessary to analyze which source is more profitable because the cost of external financing is relatively high as compared the retained earnings due to the extra cost required.

Retained earnings are used for making investment in favorable investment opportunities, which in turn helps to increase the growth rate of the firm. The main controversy between the shareholders and management is the rate of dividend because shareholders want more dividend and management wants more amount to retain to the company for the investment purpose. Dividend policy decision is the major financial decision of the firm, which determines further capital structure and growth of the firm.

In context of Nepal, most of the public enterprises are operating in loss. In such situation it is not possible to distribute dividend. Such enterprises mainly focus on minimizing their loss. There are few companies who pay dividend. But after the establishment of joint venture companies, there is a new trend of distributing dividend to shareholders that has brought new hopes for productive mobilization of funds. Dividend distribution trend has not only attracted the investors but has also made the management conscious about the policy regarding the payment of dividend.

1.2 Statement of the Problem

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

Many empirical studies have been carried out in the developed capital market to analyze the relationship between dividend and stock prices like Lintner (1956),

Modigliani and Miller (1961), Gordon (1962), Friend and Puckett (1964), Walter (1966), Van Horne and McDonald (1971), Chawla and Shrinivasan (1987). However, no conclusive relationship exists between the amount paid out as dividend and the market price of share. There is still a controversy concerning the relationship between dividend and market price of shares. From the past many year, it has been tried to see the relevant and practicable dividend policy in the firms all over the world.

Dividend is the most inspiring factor for the investment on shares of the company is thus desirable from the stockholder's point of view. In one hand the payment of dividend makes the investors happy. But in the other hand the payment of dividend decreases the internal financing required for making investment in golden opportunities. This will hamper the growth of the firm, which in turn affects the value of the stock. There may be various factors that cause fluctuation in share prices.

Earnings are also treated as financing sources of the firms. The firm retains the earning, its repercussion can be seen in many factors such as decreased leverage ratio, expansion of activities and increase in profit in succeeding years. Whereas if firm pays dividend, it may need to raise capital through capital market, which are depends on ownership control. On condition the firm takes loans or raises debenture, it will affect on risk characteristics of the firm. Therefore, there are many dimensions to be considered on dividend theories, policies and practices.

The capital market is an important part of corporate development of a country. Even if capital market is in the early stage of development in Nepal, Nepalese investors have heavily made investment on newly established companies without having the prospective analysis of those companies, especially in the financial sector. This trend will remain to continue until the investors are satisfied by the decision made by the management of these companies. Dividend is the most inspiring aspect for the investment in the shares of various companies for an investor. In popular practice of Nepal, when the firms earn big earnings they retain more and when they do not have good figure of earnings, company announces high dividend to protect their image in the capital market. Even if dividends affect the firm's value, unless management knows exactly how they affect value, there is not much that they can do to increase the shareholders' wealth. So it is necessary for the management to understand how the dividend policy effects the market valuation of the firm or market price of the stock.

Thus, this study will seek to answer the following questions:

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

1.3 Objectives of the Study

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

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

1.4 Significance of the Study

Nowadays people are attracted to invest in shares for the purpose of getting more return as well as to maximize their wealth. So, the dividend policy has become an effective way to attract new investors, to keep present investors happy and to maintain goodwill of the company. When a new company floats shares through capital market, very big congregation gathers to apply for owner's certificate. It indicates people's expectation on higher return of investment in shares.

While investing in shares, the investor forgoes opportunity income that he could have earned. In capital market, the return can be earned in two ways:

- (i) By means of dividend
- (ii) By capital gains i.e. increase in share price.

As dividend is one of the crucial factors in every organization. The dividend is most sensitive element in the area of investment in the common stock. If the market does

not receive its expected dosage, stock price will suffer. Dividend announcement also help to solve symmetric information problem between management and shareholders. Besides this, shareholders usually think that dividend is less risky than capital gain and they use the announcement of changes in dividend payment in assessing the value of a security.

In the Nepalese context, people are investing hit-or-miss in shares because due to the lack of enough knowledge. Therefore, the important part is necessary to establish clear conceptions about the return resulting from investing in the stocks for the investors.

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

1.5. Limitations of Study

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

- i. This study is based specially on secondary data like annual reports of the banks under review, journals, unpublished as well as published thesis works, other published articles and reports and related materials from various websites.
- ii. The balance sheet, profit and loss account and accompanying notes have been basically considered as the subject matters of the study and they are assumed to be correct and true.
- iii. The study covers a five-year period, i.e. from FY (2073/077) 2016/2020 only.
- iv. The study covers only five commercial banks of Nepal.

1.6 Chapter Plan

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

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

CHAPTER –II

REVIEW OF LITERATURE

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

2.1 Conceptual Framework

Dividend refers to that portion of a firm's net earnings, which are paid out to the shareholders. Dividends are generally paid in the form of cash. So that the payment of dividend reduces the cash balance of the company as well as reduces the amount of retained earnings. In theory of finance, dividend decision plays a very vital role. Dividend decision however is still a crucial as well as controversial area of managerial finance. It is more technical area of finance in the sense that it is complex on having numerous implications for the firm. Dividend policy may affect the area such as financial structure of the firm, flow of funds, corporate liquidity, stock prices, investor's satisfaction, growth of the firm etc. Like other major decisions of the firm i.e. investment and financing decision, the dividend decision has major role in all business organizations.

Conceptual Framework:

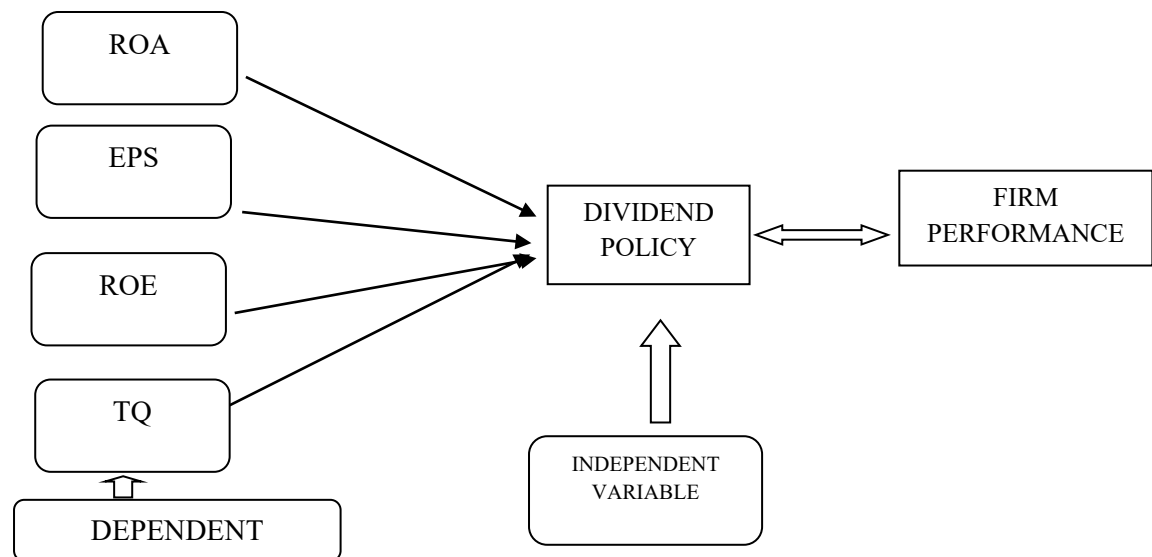


Fig:1.1 Conceptual Framework

In the above diagram, it explains that the dependent variables are related with Return on assets (ROA), Earning Per Share (EPS), Return on Equity (ROE) and Total Quality (TQ). The independent variables are dividend policy which may affect the area such as financial structure of the firm, flow of funds, corporate liquidity, stock prices, investor's satisfaction, growth of the firm etc. The dividend policy includes all aspects related to the payment of dividend. There is inverse relationship between cash dividend and retained earnings. In other words, if the company pays more dividends to its shareholders, there will be less retained earnings for making investments and vice-versa. Like other major decisions of the firm i.e. investment and financing decision, the dividend decision has major role in all business organizations. Dividend policy is concerned with financial policies regarding paying cash dividend in the present or paying an increased dividend at a later stage. Whether to issue dividends, and what amount, is determined mainly on the basis of the company's unappropriated profit (excess cash) and influenced by the company's long-term earning power.

"Dividend Policy determines the division of earnings between payments to stockholders and reinvestment in the firm. Retained earnings are one of the most significant sources of funds for financing corporate growth, but dividends constitute the cash flows that accrue to stockholders."

Western & Copland (1990) Thus, the dividend payout reduces the amount of retained earnings in the firm and affect total amount of internal financing. The decision depends upon the objective of the management for wealth maximization.

Dividend decision is one of three major decision of managerial finance. The firm has to choose between distributing profit as dividend to the shareholders or reinvesting the profit into the business for more profitable opportunities. It is better to pay the dividend, if the payment will lead to the wealth maximization. If not, it is better to retain them for financial investment. Thus, the relationship between dividend and value of the firm is considered as the criterion for decision-making.

Shareholders of a company always aim to maximize their wealth. The shareholders wealth includes not only the market price of the stock but also the current dividend the company pays to them. But the dividend payout reduces the total amount of internal financing. Thus, the dividend policy should be concerned with the well-being of the shareholders, which can be partially measured by dividend received but more accurately measured in terms of the market value of the stock.

Most of the shareholders want to maximize their wealth in two forms i.e. capital gain and cash dividend. Capital gain is the profit resulting from sale of the common stock whereas dividend is the share in profit of the company. The shareholders, in one hand expect an increase in market price of the share and in the other hand they also expect distribution of firm's earning in the form of dividend. From the firms having stable image in the market, the investors expect regular dividend. Thus, this priority takes over the desire to retain earnings for financial expansion and growth. Thus, shareholders expectation can be fulfilled either through capital gains or dividends.

It is thus very important to maintain balance between the shareholders' interest and corporate growth resulting from internal financing i.e. amount retained. "Financial Management is therefore concerned with the activities of the corporation that affect the well-being of stockholders. That well-being can be partially measured by the dividend received, but more accurate measure is the market value of stock." (Dean ,1973).

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

2.1.1 Forms of Dividend

Depending upon the objectives and policies, they implement, the firm can give various type of dividend to the shareholders. Before adopting any dividend, the firm must ensure the smooth growth of the firm as well as satisfy the expectation of the shareholders.

Dividends are given so as:

- a. To increase the faith of retail investors in the company.
- b. To send a signal to investors about companies' optimism towards future earnings.

While doing so, the company may choose different ways of paying out dividend. A company can also decide the frequency of paying out the dividend, meaning it can give it annually, monthly or quarterly. This is solely dependent of the dividend policy of the company. There should be consistency in dividend policy and financial plans, shareholders preference and attitude of the directors. The corporations in Nepal are in the early stage of development due to which they need to pay extensive concentration in the dividend. The empirical observation in case of public limited companies in Nepal shows that only few corporations are paying dividend to the government due to suffering from regular losses and not having risk of ownership transfer Bhattarai (1996). Some of the major forms of dividends, which are adopted by corporations:

a. Cash Dividend

The portion of earning paid in form of cash to the investors in proportion to their share of the company is known as cash dividend. Cash dividend is the most popular form of dividend payout. In this, company issues the dividend to all shareholders where the money is deposited in the bank accounts of shareholders as per the holdings of the investors. Usually there is a predefined process for the dividend declaration. After the payment of dividend to the shareholders both the total assets and net worth of the company decreases by the amount equal to the cash dividend. For the payment of dividend, company should sustain adequate balance of cash. In case of

insufficiency in cash balance for the payment of dividend, funds to be borrowed for this purpose are difficult. Thus, a company should regularly perform cash planning for maintaining a stable dividend policy. In context of Nepal, cash dividend is the most popular form of dividend and is mostly adopted by many companies/firms/financial institutions. However, it can be said that the volume of cash dividend depends on the earning of the organization, attitude of management, situation of the market, cost of external financing etc.

b. Stock Dividends/Bonus Share

Stock dividend refers to the payment of additional stock to the shareholders. "A stock dividend is paid in additional shares of the stock instead of in cash and simply involves a book-keeping transfer from retained earnings to the capital stock account." Western & Copland (1990) A stock dividend represents a distribution of shares in addition to the cash dividend to the existing shareholders. This has the effect of increasing the number of outstanding shares of the company. The declarations of the bonus shares will increase to paid up shares capital and reduce the reserve and surplus of the company. The total net worth is not affected by the bonus issue. In fact, it represents nothing more than re-capitalization of the owner's equity portion, i.e. the reserve and surplus. It is simply an accounting transfer from retained earnings to capital stock. If any company issues additional shares to common shareholders without any consideration then the action becomes stock dividend. If the company issues less than 25% of the previously issued stocks then it will be treated as the stock dividend. If the issuance of new shares is more than 25% of the last issue shares then it is treated as the stocksplit.

c. Scrip Dividend

A Scrip dividend is issued when a company has been suffering from the cash problem and does not permit the cash dividend, but has earned profit. When any company doesn't have enough funds to pay dividend then it may choose to pay dividend in the form of promissory note to pay the shareholders at a later date. This essentially creates a note payable. A dividend paid in promissory note is called scrip dividend. Scrip is a form of promissory notes promising to pay the holder at a specified later date under this form of dividend, a company issues and distributes transferable promissory

notes to shareholders, which may be interest bearing or non-interest bearing. The use of scrip dividend is desirable only when corporations have really earned profit and have only to wait for the conversion of other current assets into cash. Therefore, in order to overcome the temporary shortage of cash, sometimes company uses scrip dividends.

d. Property Dividend

It is also known by the name of liquidating dividends. It involves a payment of assets/property in any form other than cash. Such form of dividend may be followed whenever there are assets that are no longer necessary in the operation of the business or in extra ordinary circumstances. Company's own products and the securities of subsidiaries are the example that have been paid as property dividend. Any company can issue any non-monetary dividend to its shareholders. The issued property dividend would be recorded against the current market price of the asset distributed. As the market price of the asset is expected to be either above or below the book value therefore it would either incur profit or loss and accordingly would be entered in the books. This interpretation of the distributed asset may force businesses to intentionally issue the property dividend to manipulate the taxable income.

e. Liquidating Dividend

A liquidating dividend is a distribution of cash or other assets to shareholders, with the intent of shutting down the business. This dividend is paid out after all creditor and lender obligations have been settled, so the dividend payout should be one of the last actions taken before the business is closed. When the board of the company thinks of returning the original capital invested by the shareholders then it is known as the liquidating dividend. This may happen due to the fact the company intends to wrap up the business.

2.1.2 Theories of Dividend

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

2.1.2.1 Residual Theory of Dividend

According to one school of thought, the residual theory of dividends suggests that the dividend paid by a firm should be viewed as a residual amount left after all acceptable investment opportunities have been undertaken. Dividend policy can be viewed as one of a firm's investment decision. A firm that behaves in this manner is said to believe in the residual dividends. According to this theory, dividend policy is a residue after investment whether or not a company pays dividends depends on the availability of investment opportunity. The starting point in this theory is that investors prefer to have the firm retain and reinvest earnings, instead of paying dividends, if the return on reinvestment is higher than the opportunity cost of fund for the investors. The dividend under residual dividend policy equals the amount left over from earnings after investment, no dividends are paid and new shares are sold to cover deficit for investment that is not covered. If there is not any investment opportunity then cent percent earning is distributed as dividend to the shareholders. Dividend is therefore merely a residue i.e. percent remaining after all equity investment needs are fulfilled (Irwin & Marshall, 1964).

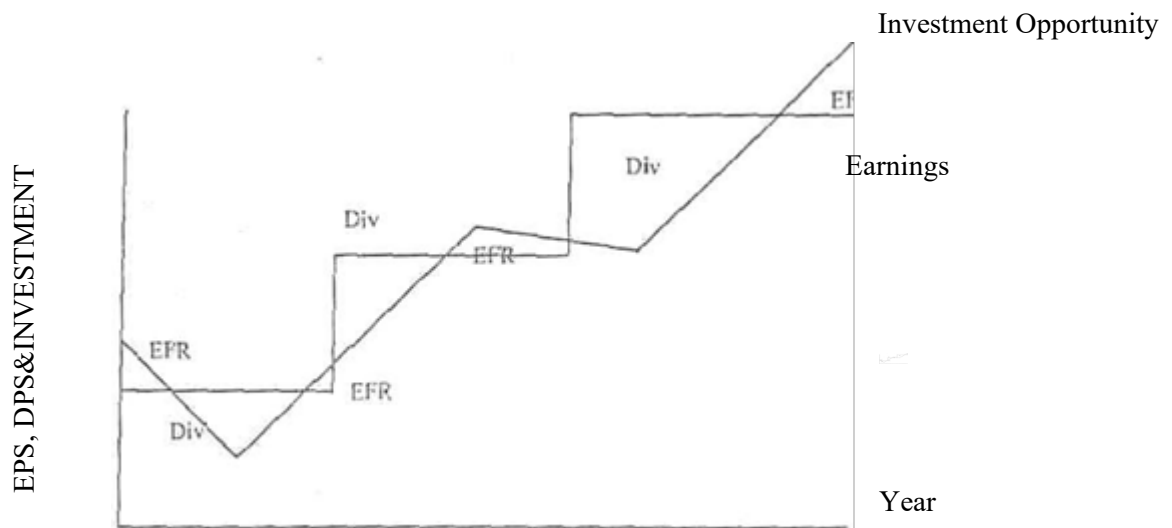


Fig.2.1 EPS and DPS relationship under Residual Policy

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

As long as there are investment projects with higher returns, the firm retains the earnings to invest in such profitable projects rather than paying dividends. The firm grows at a faster rate when it accepts highly profitable investment projects. External equity could be raised to finance investments. But the retained earnings are preferable because unlike external equity, they do not involve any floatation costs. The distribution of cash dividend causes a reduction in internal funds available to finance profitable investment opportunities and thus, either constrains growth or requires the firm to find other costly sources of financing.

Thus, earning may remain undistributed Investment Opportunity EPS, DPS & Investment Earning Year 19 as a part of a long-term financing decision. The dividend paid to shareholders represents a distribution of earnings that cannot be profitably reinvested by the firm. With this approach, dividend decision is viewed merely as a residual decision.

2.1.2.2 Stability Theory of Dividend

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

By stability, we mean maintaining the position of the firm's dividend payments in relation to a trend line, preferably one that is upward sloping. There are some reasons to believe that a stable dividend policy does lead to higher stock prices. First, investors are generally expected to value more highly dividends they are sure of receiving, since fluctuating dividends are riskier than stable ones. Accordingly, the same average amount of dividend received under a fluctuating dividend policy is likely to have a higher discount factor applied to it than is applied to dividends under

a stable dividend policy. This means that the company with stable dividend policy will have a lower required rate of return or cost of equity capital than one whose dividend fluctuates. Second, many stockholders live on income received in the form of dividends. These stockholders are greatly inconvenienced by fluctuating dividends and they will pay a premium for a stock with a relatively assured minimum dollar dividend. Third, from the stand point of both the corporation and its stockholders is that, stability of dividend is desirable for the requirement of legal listing. There are three distinct forms of such stability of dividend payments. They are:

- a. Constant Dividend per share
- b. Constant Dividend payout ratio
- c. Low Regular Dividend plus extra dividend

i) Constant Dividend per share

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

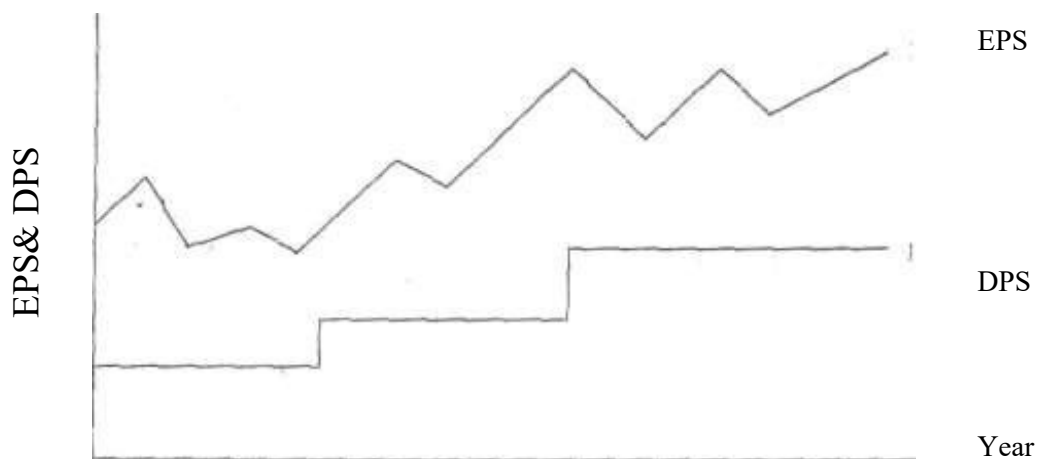


Fig. 2.2: EPS and DPS relationship under Constant Dividend per share policy

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

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

ii) Constant Dividend Payout Ratio

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

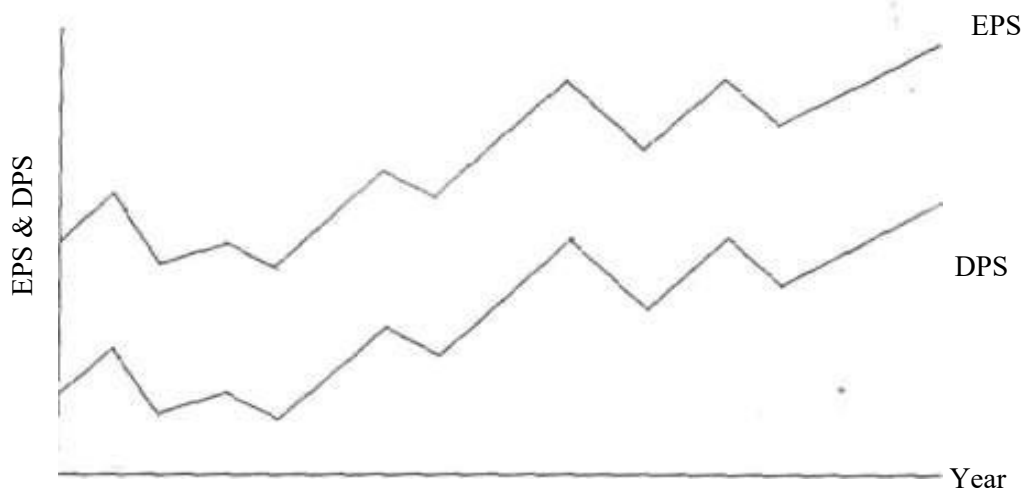


Fig. 2.3: EPS and DPS relationship under Constant Dividend Payout Ratio

This policy is related to company's ability to pay dividends. If the company incurs losses, no dividends shall be paid regardless of the desires of shareholders. Internal financing with retained earnings is automatic when this policy is followed. At any

given payout ratio, the number of dividends and additions to retained earnings increases with increasing earnings and decreases with decreasing earnings. This policy simplifies the dividend decision, and has the advantage of protecting a company against over or under payment of dividend. It ensures that dividends are paid when profits are earned and avoided when it incurs losses (Brandt, 1972).

iii) Low Regular Dividend Plus Extra Dividend

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

2.1.3 Factors Influencing Dividend Policy

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

a. Stability of Earnings

Stability of earnings is one of the important factors influencing the dividend policy. If earnings are relatively stable, a firm is in a better position to predict what its future earnings will be and such companies are more likely to pay out a higher percentage of its earnings in dividends than a concern which has fluctuating earnings.

Generally, the concerns which deal in necessities suffer less from fluctuating incomes than those concern which deal with fancy or luxurious goods. A firm that has

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

b. Financing Policy of the Company:

Dividend policy may be affected and influenced by financing policy of the company. If the company decides to meet its expenses from its earnings, then it will have to pay less dividend to shareholders. On the other hand, if the company feels, that outside borrowing is cheaper than internal financing, then it may decide to pay higher rate of dividend to its shareholder. Thus, the internal financing policy of the company influences the dividend policy of the business firm.

c. Liquidity of Funds:

The liquidity of funds is an important consideration in dividend decisions. According to Guthmann and Dougall, although it is customary to speak of paying dividends 'out of profits', a cash dividend only be paid from money in the bank. The presence of profit is an accounting phenomenon and a common legal requirement, with the -cash and working capital position is also necessary in order to judge the ability of the corporation to pay a cash dividend.

Payment of dividend means, a cash outflow, and hence, the greater the cash position and liquidity of the firm is determined by the firm's investment and financing decisions. While the investment decisions determine the rate of asset expansion and the firm's needs for funds, the financing decisions determine the manner of financing.

d. Dividend, Policy of Competitive Concerns:

Another factor which influences, is the dividend policy of other competitive concerns in the market. If the other competing concerns, are paying higher rate of dividend than this concern, the shareholders may prefer to invest their money in those concerns rather than in this concern. Hence, every company will have to decide its dividend

policy, by keeping in view the dividend policy of other competitive concerns in the market.

e. Past Dividend Rates:

If the firm is already existing, the dividend rate may be decided on the basis of dividends declared in the previous years. It is better for the concern to maintain stability in the rate of dividend and hence, generally the directors will have to keep in mind the rate of dividend declared in the past. A firm with record of past dividend payments strive to maintain the same in the future. Dividends are habit forming. If the market does not receive its expected dosage, the stock price will suffer. The majority of firms surveyed indicated they would maintain their current dividend payments even if they were operating at a net loss for an interim period. Furthermore, Baker, Farrelly and Edelman (1985) find that managers strongly agree with the statement that a firm should attempt to maintain a persistent record of dividend payments.

f. Debt Obligations:

A firm which has incurred heavy indebtedness, is not in a position to pay higher dividends to shareholders. Earning retention is very important for such concerns which are following a programmed of substantial debt reduction. On the other hand, if the company has no debt obligations, it can afford to pay higher rate of dividend.

g. Ability to Borrow:

Every company requires finance both for expansion programmes as well as for meeting unanticipated expenses. Hence, the companies have to borrow from the market, well established and large firms have better access to the capital market than new and small, firms and hence, they can pay higher rate of dividend. The new companies generally find it difficult to borrow from the market and hence they cannot afford to pay higher rate of dividend.

h. Growth Needs of the Company:

Another factor which influences the rate of dividend is the growth needs of the company. In case the company has already expanded considerably, it does not require funds for further expansions. On the other hand, if the company has expansion programmed, it would need more money for growth and development. Thus, when

money for expansion is not, needed, then it is easy for the company to declare higher rate of dividend.

i. Profit Rate:

Another important consideration for deciding the dividend is the profit rate of the firm. The internal profitability rate of the firm provides a basis for comparing the productivity of retained earnings to the alternative return which could be earned elsewhere. The expected rate of returns on assets determines the relative attractiveness of paying out earnings in form of dividend to the shareholders who will use them elsewhere or using them in the present venture. Thus, alternative investment opportunities also play an important role in dividend decisions.

j. Legal Requirements:

While declaring dividend, the board of directors will have to consider the legal restriction. The Indian Companies Act, 1956, prescribes certain guidelines in respect of declaration and payment of dividends and they are to be strictly observed by the company for declaring dividends.

k. Policy of Control:

Policy of control is another important factor which influences dividend policy. If the company feels that no new shareholders should be added, then it will have to pay less dividends. Generally, it is felt, that new shareholders, can dilute the existing control of the management over the concern. Hence, if maintenance of existing control is an important consideration, the rate of dividend may be lower so that the company can meet its financial requirements from its retained earnings without issuing additional shares to the public.

l. Corporate Taxation Policy:

Corporate taxes affect the rate of dividends of the concern. High rates of taxation reduce the residual profits available for distribution to shareholders. Hence, the rate of dividend is affected. Further, in some circumstances, government puts dividend tax on distribution of dividends beyond a certain limit. This may also affect rate of dividend of the concern.

m. Tax Position of Shareholders:

The tax position of shareholders is another influencing factor on dividend decisions. In a company if a large number of shareholders have already high income from other sources and are bracketed in high income structure, they will not be interested in high dividends because the large part of the dividend income will go away by way of income tax. Hence, they prefer capital gains to cash gains, i.e., dividend capital gains here we mean capital benefit derived by the capitalization of the reserves or issue of bonus shares.

Instead of receiving the dividend in the form of cash (whatever may be the per cent), the shareholders would like to get shares and increase their holding in the form of shares. This has certain benefits to shareholders. They get money by selling these extra shares received in proportion to their original shareholding.

This will be a capital gain for them. Of course, they have to pay tax on capital gains. But the capital gains tax will be less compared to the income-tax that they should have paid when cash dividend was declared and added to the personal income of the shareholders.

n. Effect of Trade Cycle:

Trade cycle also influences the dividend policy of the concern. For example, during the period of inflation, funds generated from depreciation may not be adequate to replace the assets. Consequently, there is a need for retained earnings in order to preserve the earning power of the firm.

o. Attitude of the Interested Group:

A concern may have certain group of interested and powerful shareholders. These people have certain attitude towards payment of dividend and have a definite say in policy formulation regarding dividend payments. If they are not interested in higher rate of dividend, shareholders are not likely to get that. On the other hand, if they are interested in higher rate of dividend, they will manage to make company declare higher rate of dividend even in the face of many odds.

2.2 Review of Major International Studies

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

2.2.1 Review of Journals

Walter (1996) conducted a study on divided, stock prices and proposed a model for share valuation. According to researcher, the dividend policy of the firm affects the value of the shares. Therefore, dividend policy is relevant. The researcher argues that the choice of dividend policies always affects the value of enterprise. Researcher argument is just the opposite of what Modigliani and Miller said. The relationship between firm's internal rate of return and cost of capital is determining factors to retain profit or distribute dividends. As long as the internal rate is greater than cost of capital, the stock price will be enhanced by retention and will vary inversely with dividend payout.

Walter's model is based on following assumptions:

- The firm finances all investment through retained earnings; that is debt or new equity is not issued,
- The firm's internal rate of return and its cost of capital are constant.
- All earnings are either distributed as dividends or reinvested internally immediately.
- Beginning earnings and dividends never change. The values of the earnings per share (EPS) and the dividend per share (DPS) may be changed in the model to determine the results, but any given values of EPS or DPS are assumed to remain constant forever in determining given value.
- The firm has a very long or infinite life.

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

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

Where,

P = Market price per share

DPS = Dividend per share

EPS = Earnings per share

r = internal rate of return (average)

k = cost of capital or capitalization rate

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

Growth Firms (r>k):

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

Normal Firms (r=k)

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

Declining Firms ($r < k$)

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

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

Limitation of Walter's Model

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

No External Financing

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

Constant r and k

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

Modigliani and Miller's (1961) stated that: "Dividend policy of a firm is irrelevant, as it does not affect the wealth of the shareholders". Modigliani and Miller, for the first time in the history of finance, advocated that Dividend Policy does not affect the value of firm i.e. dividend policy has no effect on the share price of the firm. The researchers argued that the value of firm depends on the firm's earnings which depend on its investment policy. Therefore, as per MM Theory, a firm's value is independent of Dividend Policy. The researchers conclude that dividend policy is irrelevant and dividend policy has no effect in the value of the firm. A firm that pays dividends will have to raise funds externally to finance its investment plans. MM hold that when the firm pays dividends, external financing offsets its advantage. It does not seem so relevant to apply MM approach in Nepalese context because when we apply this approach, the assumptions supposed by MM are significantly deviated.

The MM approach is based on the following critical assumptions:

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

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

Step 1:

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

$$P_0 = \frac{(D_1 + P_1)}{(1+K_e)}$$

Where,

P_0 = Market price at the beginning or at the zero period

K_e = Cost of equity capital

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

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

Step 2:

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

$$P_0 = \frac{(nD_1 + P_1)}{(1+K_e)}$$

Where,

n = Number of shares outstanding at the beginning period

Step 3:

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

$$nPo = \frac{[D1 + (n + \Delta n) P1] - \Delta n P1}{(1 + Ke)}$$

Step 4:

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

$$\Delta nP1 = I - (E - nD1)$$

$$\text{or } \Delta nP1 = I + E - nD1$$

Where,

$\Delta nP1$ = Amount raised from the sale of shares to finance the project

I = Total amount of capital required for the project

E = Earning of the firm during the period

$(E - nD1)$ = Retained Earnings

$nD1$ = Total dividend paid

Step 5:

If value of $nP1$ is substituted from equation of step 4 into equation of step 3 then,

$$nPo =$$

$$\text{or, } nPo = \frac{D1 + (n + \Delta n) P1 - I + E - nD1}{(1 + Ke)}$$

$$\text{or, } nPo = \frac{(n + \Delta n) P1 - I + E}{(1 + Ke)}$$

Step 6:

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

In this way, according to Modigliani and Miller's study, it seems that under condition of perfect markets, rational investors, absence of tax discrimination between dividend income and capital gain, given the firm's investment policy is fixed, its dividend policy may have no influence on the market price of share. However, the view that dividend is irrelevant is not justified.

The assumption of perfect capital market mechanism and rational investors prove faulty assumption in case of Nepal. Floatation cost, transformation cost and the tax effect on capital gain are neglected by MM, that is not appropriate. The assumption "in a world without taxes" one critic satires; such a world is probably the moon or other planet in the universe.

Gordon (1962) has developed another popular and important model relating to the stock valuation using the dividend capitalization approach. Gordon concludes that dividend policy does affect the value of shares even when the return on investment and required rate of return are equal. The researcher explains that investors are not indifferent between current dividend and retention of earnings with the prospect of future dividends, capital gain and both. The conclusion of this is that investors have a strong preference for present dividends to future capital gains under the condition of uncertainly.

It is assumed that current dividend is less risky than the expected capital gain. "This argument insisted that an increase in dividend payout ratio leads to increase in stock prices for the reason that investors consider the dividend yield is less risky than the expected capital gain." (Pradhan, 1992:383) Gordon's model is also described as "**a bird in hand argument.**" The researcher supports the argument, which is popularly known as a bird in hand is worth two in the bush. What is available at present is preferable than what may be available in the future. That is to say current dividends are considered certain and risk-less. So, it is preferred by rational investors as compared to deferred dividend in future. The future is uncertain. The investors would

naturally like to avoid uncertainty. So, the current dividends are given more weight than expected future dividend by the investors. So, the value per share increases if dividend payout ratio increases. This means there is positive relationship between the amount of dividend and stock prices.

Basic assumptions of this model are as follows.

- a. The firm uses equity capital only.
- b. Internal rate of return (r) and cost of capital (k_e) are constant.
- c. The firm and its stream of earnings are perpetual.
- d. There are no taxes on corporate income.
- e. The retention ratio (b) once decided upon is constant. Thus, the growth rate, ($g = br$) is constant forever.
- f. ' K_e ' must be greater than g (br) to get meaningful value.
- g. The source of financing for new investment is only retained earnings. No external financing is available.

Gordon's model is also known as **GROWTH MODEL**. The formula for finding out the market value per share, proposed by Gordon is given below.

$$P = \frac{E(1-b)}{K_e - br} = \frac{E(1-b)}{K_e - g}$$

Where,

P = Price of share/market value per share

E = Earnings per share

b = Retention ratio/percentage of retained earning

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

K_e = Capitalization rate/cost of capital

br = g or growth rate in r , (i.e., rate of return on investment of an all equity firm)

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

1st Case: Growth Firms ($r > k$)

In the case of growth firm, the value of a share will increase as the retention ratio (b) increases and the value of a share will decrease as the retention ratio (b) decreases. i.e. high dividend corresponding to earnings leads to decrease in share prices and low dividend corresponding to earning leads to increase in share prices. So, dividends and stock prices are negatively correlated in growth firm i.e., $r > k$ firm.

2nd Case: Normal Firms ($r = k$)

Dividend payout ratio does not affect the value of share in normal firm. In other words, share value remains constant regardless of changes in dividend policies. It means dividend and stock price are free from each other in normal firm i.e., $r = k$ firm.

3rd Case: Decline Firms ($r < k$)

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

2.2.2 Review of Articles

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

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

Bhattarai (1996), "There is positive relationship between cash flow and current profit and divided percentage of shares". The degree of relationship is almost perfect. There is no criterion to adopt payout ratio and it is observed that there is a negative relationship between payout ratio and valuation of shares. In aggregate, there is no stable dividend paid by the companies over the years. Some companies have 39 steadily increased dividend. Such increase in dividend has a considerable impact on valuation of shares if there are rational investors; however, this is yet to be realized by Nepalese company management. Inflation rate in recent year are decreasing and the market price of share are increasing. Nevertheless, the companies are not able to give

required rate of return to the investors. There was negative relationship between price of share and stockholders required rate of return. Shareholders have foregone opportunity income in hope of getting higher return, but companies have not been able to return even equal to risk free rate of return.

Oyama (1997), Policy Development and Review Development Division has conducted a study entitled on “Determinants of Stock Prices: The Case of Zimbabwe”. The research study done by author focuses on the general relationship between stock prices and macroeconomics variables in Zimbabwe, using error-correction, model, he multi factor return – generating model. From the study author shows that despite the large fluctuation in stock prices since 1991, the analysis indicated that the Zimbabwe Stock Exchange functioned quite consistently during that period.

Basnet (2004) justified that “The dividend payment is not a regular and attractive phenomenon in Nepalese listed companies”. The companies do not have any stable and consistent dividend practice. The market price' of share of banking and total 41 companies are influenced by many factors oilier than DPS. Change in dividend per share affects the share price differently in different companies. The DPS and EPS are positively correlated in all sectors. Which means higher the EPS, higher will be the DPS. Market Value per Share (MVPS) of the listed companies is higher than net worth per share (NWPS). There exists vast difference between MP and NWPS. This situation clearly indicates that the investors are not matching book value and market value of the share. They don't see the reported value of share from its books of account.

Baral et al. (2006) has conducted a study entitled on “Daily Stock Price Behavior of Commercial Banks in Nepal”. The study conducted by the authors focuses to analyze the stock price behavior of commercial banks in Nepalese markets. To conduct the study the technical analysis and fundamental analysis is used. The study done by authors reveals that the observations of daily stock prices of sampled banks indicate that there is a large variation in their stock prices in the fiscal year 2005/06 which shows that banks are not doing well in Nepalese stock market. Also looking on the serial coefficients it can be stated that the values are significantly deviated from zero and statistically insignificant. It signifies that the successive price changes are dependent.

Adhikari (2007) concluded that “There are differences in financial position of high dividend paying and low dividend paying companies”. The stocks with longer ratio of dividend per share to book value per share have higher liquidity. It has more variable as compared to stock paying lower dividends. Other thing remaining the same, other thing remaining the same, financial position of high dividend paying companies are comparatively better than that of low dividend paying companies. Another interesting conclusion is that market price of stock is affected by dividend for finance and non-finance sectors differently. There is positive relationship between dividend and stock price. There is negative relationship between dividend payout and earnings before tax to net worth. Stocks with larger ratio of DPS to book value per share have higher profit ability. With respect to major motives for paying cash dividend, the majority of the respondent feels that it is to convey information to shareholders that the company is doing good. Nepalese shareholders are not really indifferent towards payout or nonpayment of dividend. One of the major findings is that earning announcement helps to increase the market price of share.

Jha (2007) highlighted “Dividend practice of the bank, insurance and financial companies”. To analyze the relationship of dividend with various important variables. Major findings to the study are: Nepalese government NRB, SEBON, NEPSE should be conscious to discourage market imperfection. Companies should have long term policy regarding the adoption of suitable dividend policy. Even if not earning has been increasing, the dividend per share has widely fluctuated. Distribution of bonus share should be pre-evaluated. There needs a proper information discloser to the investor.

Bhattarai (2008) justified that “The banks and manufacturing companies do not follow any specific dividend policy”. DPR are fluctuating over the periods of those selected companies. MPS do not follow any specific trend, it fluctuates the future price. There is not any specific trend of EPS in the companies. There is great difference between market price per share and book value per share.

Gautam (2009) concluded that “The average earning per share of both two banks is satisfactory and dividend per share is too much unsatisfactory”. There is no consistency in dividend payment and its growth rate is not static as well. There is no prominent difference in DPS and D/P rate of both two banks however; there is no

uniformity in EPS. R.R Gautam recommends as follows: To follow clearly defined dividend strategy as lack of it causes serious inconvenience to many other sectors of finance. Banks should consider the interest and expectation of the investors while making dividend decisions.

Shubiri and Faris (2010) has conducted a study entitled on “Analysis of the Determinants of Market Stock Commercial Banks”. In the study, simple and multiple microeconomic factors with the stock price and found of stock dividend percentage, gross domestic product, and negative significant relationship on inflation and leading interest rate but not always significant on some years of Amman Stock Exchange in Jordan.

Budhathoki (2012) conducted that the average earning per share (EPS) of the banks under study shows a positive result. But the coefficient of variation indicates that there is no consistency of EPS. The average dividend per share (DPS) shows that there is no regularity in dividend payment. The analysis of DPR shows that the Dividend Payout Ratio (DPR) of the banks is not stable. The average market price shows that there is quite high level of fluctuation.

Bhattarai (2013) conducted that there is the largest fluctuation in EPS and DPS, the relationship between DPS and EPS is positive; however, it is not significant. There may be various other factors besides EPS to affect MPS and the growth rate of dividend is inconsistent. It concluded that no sampled commercial banks have followed distinctly defined dividend policy.

Paudel (2014) highlighted the research on the basic objective of the study are to examine whether MPS of listed companies, especially for selected companies under the study and to what extent the risk is involved in the investment of common stocks of those. There is no uniformity in the relationship of MPS with various financial indicators of the sampled companies. If considered on the basis of the average data for the past 5 years, MPS of 6 financial institutions has higher positive correlation with 44 major financial indicators such as EPS, NWPS and DPS and such relationship is significant. The Nepalese stock markets are not efficient enough to determine MPS in accordance with respective financial performance. The market price of share in Nepal is not indicative of a company's financial performance in stock market. Value of share

price is to be determined by the future financial indicators, unfortunately, the stock market does not run based on proper information about the company.

Islam et al. (2015) has conducted a study entitled on “Determinants of Stock Price Movements”: Evidence from Chittagong Stock Exchange, Bangladesh. The research focus on the incidents of 2010-2011 stock market crash in Bangladesh. The study aims to reexamine the relationship between stock price, dividend and retained earnings of 29 listed banks of Chittagong Stock Exchange, in the post-crash period. Cross-sectional data were collected from secondary sources. Using linear regression method, the study found that both, dividend and retained earnings of sample banks have strong influence over the stock price, though there was moderate explanatory power of those variables. This study concludes that both dividend and retained earnings are strong determinants of stock price at significant level.

2.2.3 Review of Previous Thesis

In last few years, prior to this thesis, some students of M.B.A. and M.B.S. programme have conducted research about the dividend and its relation with stock prices in various sectors. Some of them, which are supposed to be relevant for this study have been reviewed and presented in this section.

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

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

The studies selected three commercial banks and insurance companies as sample for her research study. Thereafter, studies accomplished her research analysis with an aid of statistical tools like multiple regression analysis, correlation etc. After the detailed analysis, the studies came to conclude that the relationship between market price per share and last year's dividend was positive for three sampled companies, while it was negative for the rest three companies. Similarly, the studies research result showed

that the relationship between earning per share and market price per share was not consistent for all the sampled companies. This is because of the positive relationships found for some companies and negative for others. (Rajbhandari, 2001:3-80)

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

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

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

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

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

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

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

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

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

Bhandari (2012) has conducted a research on "**Corporate Dividend Policy: A Study of Commercial Banks of Nepal**". Thereafter, studies selected 8 listed companies, used their annual reports and calculated disclosure scores, which was followed by the use of various statistical tools like regression, correlations etc. to

attain the mentioned objective. After the detailed analysis, the studies came to conclude that DPS has significant positive relationship with EPS and MPS While, negative with P/ER and NW. The studies have only done the calculation of average value of the related banks. The studies had only analyzed the data from 2007 to 2011 to conduct the study. And also, in the study, Bhandari analyses that when the banks declare higher dividend, it makes upward influence in the market value of share creating demands of share in the stock market. Bank's dividend practices also influence book net worth. The dividend per share positively influences the book net worth. However, dividend practices cannot fully explain changes in book net worth. The earnings per share, market value per share and lagged price earnings ratio in the model to estimate impact on dividend policy. The important finding of his research that payment of dividend to shareholders is the effective way to attract investors and retain current investors. Therefore, commercial banks have to respect investors' expectation and decide on dividend accordingly. The growing financial markets of Nepal have created an environment for establishment of new commercial banks.

Thapa (2018) has conducted a research on **“Influencing Factors of Stock Price in Nepal”**.

The main objective of the Thapa's study was to explore the affecting factors of stock price and analyze the interrelationship among the affecting factors.

The specific objectives are as follows:

- To explore the effect of EPS, PE ratio, DPS and right share on stock price.
- To examines the inter-relationship between the stock price and interest rate, credit facility and stability of government.
- To analyzes the associations between MPS and Nepal Bandh (general strike), whims and rumors and public media.

The studies research study began selecting ten sub-indexes such as Banking, Hotels, Development Banks, Finance, Non- life Insurance, Hydro Powers, Manufacturing and Production Companies, Micro- finance, Life insurance Companies and other for calculating financial tools and statistical tools such as correlation. The studies analyses that the behavioral aspect of investors in the research work it can be concluded that the majority of respondents prefer to buy the stock from primary. As

well as it is used secondary market even though there is not proper stock priced in Nepal. The studies only calculate the correlation of selected companies so the study of the Thapa is not clear.

The results revealed that earning per share (EPS), dividend per share (DPS), market whims and rumors and company profiles have the significant positive association with share price while interest rate (IR) and price to earnings ratio (PER) showed the significant inverse association with share price. It means the stock market of Nepal is sensitive to the country's financial system, dividend and short-term interest rate has been one of the major determinants of the stock market. Thus, the studies' concluded that dividend and short-term interest rate could be the most important predictors of the stock prices in the secondary market of Nepal.

2.3 Organizations Under Study

2.3.1 Nepal Arab Bank Limited (NABIL Bank Limited)

Nepal Arab Bank Limited (NABIL Bank Limited) the first foreign joint venture bank of Nepal established in July 1984 (2041 B.S.), today is a pioneer in introducing many innovative products and services in the domestic banking sector representing a milestone in the banking history of Nepal. It started an era of modern banking with customer satisfaction as a focal point for doing business. With 93 points of representation across the nation and multiple correspondent banks around the globe, the Bank is serving a wider clientele. It was listed in the Nepal Stock Exchange in the year 1986 A.D. (2042/09/08 B.S.). Dubai Bank Ltd., Dubai (Later acquired by Emirates Bank International Ltd., Dubai) was the first joint venture partner to NABIL. It operates its activities through 26 branches and 2 counters. Some of the services provided by NABIL Bank Limited are accepting deposits, lending, documentary credit, guarantees, collections, credit cards, tele-banking, safe deposit lockers, fund transfer, ATM etc.

2.3.2 Nepal Bangladesh Bank Limited

Nepal Bangladesh Bank Ltd. was established in June 1994 with an authorized capital of Rs. 240 million and Paid up capital of Rs. 60 million as a Joint Venture Bank with IFIC Bank Ltd. of Bangladesh. Nepal Bangladesh Bank Ltd. (NBBL) is a leading 'A' class commercial bank licensed by Nepal Rastra Bank (Central Bank of Nepal).

NBBL was incorporated in Nepal and registered with Office of Company Registrar on January 14, 1994 as a public company limited by shares. NBBL are listed in Nepal Stock Exchange Ltd since 1995. At present IFIC Bank Ltd., Bangladesh holds 40.91% shares of NBBL. Its Head Office is situated at Kamaladi-28, Kathmandu. The bank has a network of 81 branches, 6 Extension Counters, 5 Branchless banking and 60 ATM terminals. Nepal Bangladesh Bank makes a financial contribution of RS 3lakh to Friendship Foundation Nepal, Foundation to Build Community Library at Kerabari 1 of Gorkha.

2.3.3 Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited, formerly known as Nepal Grindlays Bank Limited was incorporated in the year 1985 and has been in operation since 1987. The Bank is an integral part of Standard Chartered Group having an ownership of 70.21% in the company with 29.79% shares owned by the Nepalese public. The Bank enjoys the status of the only international bank currently operating in Nepal. On 31 July 2000, Standard Chartered Bank concluded the acquisition of ANZ Grindlays Bank form the Australia and New Zealand Banking Group Limited. With this acquisition, 50% shares of Nepal Grindlays Bank Ltd. (NGBL) previously owned by ANZ Grindlays are now owned by Standard Chartered Grindlays Bank Ltd. leading to the name change of the Bank to Standard Chartered Bank Nepal Limited with effective from July 16, 2001. The banking services range includes full trade finance capabilities as well as working capital and medium-term loan facilities, remittances, deposit services, credit card and ATM. For international firms, Standard Chartered Bank Nepal Limited specializes in foreign trade, bonding, remittance services and foreign exchange.

2.3.4 Laxmi Bank Limited

Laxmi Bank is the 16th commercial bank in Nepal, founded in 2002. In 2004 Laxmi Bank merged with HISEF Finance Limited, a first-generation finance company. This is the first merger in Nepali corporate history. In 2016, the Bank also acquired Professional Diyalo Bikas Bank, a regional development Bank. Laxmi Bank is a Category 'A' Financial Institution and re-registered in 2006 under the Banks and Financial Institutions Act of Nepal. The Bank's shares are listed and actively traded in

the Nepal Stock Exchange. The bank also promoted a life insurance company known as Prime Life Insurance in 2007 and holds 15% shareholding stake in it. Today, through its branches and a host of IT enabled channels, the Bank serves a wide range of customers. Despite a relatively short history, Laxmi Bank has emerged as a major player across all business lines – retail, midmarket, corporate, infrastructure and treasury. The Bank is widely recognized as one of the best-managed banks in Nepal with high standards of corporate governance culture, risk-management systems and a strong technology. Similarly, Laxmi Bank's investment banking subsidiary – Laxmi Capital Market Ltd, licensed by the Securities Board of Nepal's offering various merchant and investment banking services since February 2009. Laxmi Capital also manages Laxmi Value Fund – 1 and Laxmi Equity Fund, the two Mutual Funds sponsored by Laxmi Bank, both of which are listed and traded at the Nepal Stock Exchange.

2.3.5 Mega Bank Nepal Limited

Mega Bank Nepal Limited is the second largest commercial bank in Nepal. The bank is an 'A' class commercial bank licensed by Nepal Rastra Bank and has branches all across the nation with its head office in Kathmandu which provides entire commercial banking services. Following the completion of all regulatory requirements, Nepal Rastra Bank had issued Mega Bank its Operating License on 4th Shrawan, 2067 B.S. and the Bank commenced its operations from 7th Shrawan 2067. Now, the Bank having completed nine years of operations is on its way to realizing the aspirations of 2,396 Promoters who comprise primarily from middle class families spread over more than 63 Districts of Nepal. The Promoters held the vision to establish a national level Class "A" Commercial Bank, which was made a reality by an experienced and able Management Team and staff members driven by a mission to provide Banking Services to the entire economic strata of the Nepalese society from "Halo to Hydro". Mega Bank Nepal Ltd. has informed NEPSE on 2073-08-20 at 11:00 AM that the BOD meeting of the company held on 2073-08-19 has decided to propose 13.25% stock dividend along with 0.70% cash dividend and 65% right share after the bonus share to its shareholders subject to the approval from NRB and its upcoming AGM.

2.4 Research Gap

The purpose of this study is to draw some ideas concerning to the dividend policy and to see what new contribution can be made and to receive some ideas, knowledge and suggestions in relation. In this context, the previous studies can't be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. The various financing decision are vital for the financial welfare of the company. Dividend decision is one of the major decisions to be made.

May studies have been done in the context of Nepal. It has now become necessary to find out whether their findings are still valid or not. Many changes have taken place in and outside Nepal. Most of the studies conducted in the context of Nepal are based on secondary data. There is a need to conduct a survey of financial executives. In order to find out more qualitative facts on dividends which cannot be determined through the use of secondary data? Besides the analysis of secondary data this study attempts to make an opinion survey among the financial executives of different commercial banks in Nepal. Moreover, the earlier studies on dividends become old and need to be up to date and validated. Because of the rapid changes taking place in financial markets in Nepal.

CHAPTER-III

RESEARCH METHODOLOGY

3.1. Introduction

This chapter highlights the methodology adopted in the process of present study. It also focuses about sources and limitations of the data, which are used in the present study. 'Research Methodology' is a way for systematically solving the research problem. In other words, research methodology indicates the methods and processes employed in the entire aspects of the study. 'Research Methodology' refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objects in view. So, it is the methods, steps and guidelines, which are to be followed in analysis and it is a way of presenting the collected data with meaningful analysis.

3.2. Research Design

The research design is a conceptual structure within which a research is conducted. A research design is a plan for the collection and analysis of data. It is purposeful scheme of action proposed to be carried out in a sequence during the process of research. Research design helps researcher to enable him to keep track of action and to know whether he was moving in the right direction to achieve his goal. The research design of this study has been more descriptive as well as analytical using the various phenomena related and influencing the dividend decision and market price of stock. For this purpose, secondary data and information are obtained from different reliable sources and primary data are obtained through questionnaire survey. This study is carried out by using quantitative analysis method. Mostly, secondary data has been used for analysis; hence, research design of this study is based on descriptive and correlational.

"A research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern of framework, of the project the stipulates what information is to be collected from which sources by what procedure. If it is a good design, it will ensure that the information obtained is

relevant to the research questions and that it was collected by objective and economic procedures.

3.3. Nature and Source of Data

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

3.4. Population and Sample

By the end of Dec. 2020, there were 27 commercial banks (including government owned, private and joint venture) are operating in Nepal. Due to time and resource factors, it is not possible to study all of them regarding the study topic. Therefore, sampling will be done selecting from population.

For the study, we have selected 5 commercial banks for this study. The samples to be selected as follows:

1. Nabil Bank Ltd.
2. Nepal Bangladesh bank Limited
3. Standard Chartered Bank Nepal Limited
4. Laxmi Bank Limited
5. Mega Bank Nepal Limited

Out of 27 commercial banks that are operating their activities in Nepal, only 26 are listed in Nepal Stock Exchange as on 30 DEC 2020. Since, the topic implies the study should be done among the dividend paying and actively traded banks, the sampling are done accordingly. The study covers altogether five banks which were selected from random sampling method from the list of member banks of Nepal Bankers Association. Convenient sampling method is used in this study. Not only that their EPS, DPS and Net worth etc. is higher than other banks and also listed in NEPSE.

3.5. Period of the study

The study is based on five years financial data of the banks under study. (i.e. Nabil Bank Ltd. Nepal Bangladesh Bank Limited, Standard Chartered Bank Nepal Limited, Laxmi Bank Limited and Mega Bank Nepal Limited.) from fiscal year 2016/2020.

3.6. Analysis of Data

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

i. Financial Tools

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

a) Earnings Per Share (EPS)

Earnings per share is one of the factors that affect the dividend policy and stock price of a firm. EPS calculation will be helpful to know whether the firm's earning power on per share basis. Earnings 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 on a per share basis. The higher earning indicates the better achievements in terms of the profitability of the banks by mobilizing their funds and vice versa. Earnings per share is computed to know the earnings capacity and to make comparison between concerned banks. Thus,

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

b) Dividend Per Share (DPS)

Dividend per share indicates the rupee earnings distributed to common stockholders per share held by them. It measures the dividend distribution to each equity shareholders. Dividend per share shows the portion of earning distribution to the

shareholders on per share basis. Generally, the higher DPS creates positive attitude of the shareholders toward the bank is common stock, which consequently helps to increase the market value of the shares. And it also works as the indicator of better performance of the bank management. The earning distributed to the shareholders out of EPS is known as DPS. It also affects the market price of stock. If EPS is greater, DPS will be greater. It is calculated by dividing total dividend to equity shareholders by the total number of the equity shares.

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

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

(c) Dividend Payout Ratio (DPR)

It is the proportion of earning paid in the form of dividend. The dividend payout ratio is the earnings paid to the equity holders from the earnings of a firm in a particular year. This ratio shows what percentage of profit is distributed as dividend and what percentage is retained as reserve and surplus for the growth of the banks. The dividend payout ratio of a bank depends upon the earnings made by the bank. Higher earning enhances the ability to pay more dividends and vice versa. DPR reflect what percentage of profit is distributed as dividend and what percentage is retained ns reserve and surplus for the growth of the company. It is calculated by dividing the DPS by the EPS.

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

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

And,

$$\begin{aligned} \text{Retention Ratio} &= (1 - \text{Dividend Payout Ratio}) \\ &= (1 - \text{DPR}) \end{aligned}$$

(d) Price Earnings Ratio (P/E Ratio)/Earning Multiplier

Price-earnings ratio is also called the earnings multiplier. Price-earnings ratio is the ratio between market price per share and earning per share. In other words, this represents the amount which investors are willing to pay for each rupee of the firm's earnings. The P/E ratio measures investor's expectation and market appraisal of the performance of the firm. The higher P/E ratio implies the high market share price of a stock given the earning per share and the greater confidence of investor in the firm's future. This ratio reflects the market value per share for each rupee of currently reported EPS. It is calculated by dividing the market value per share by earning per share. This ratio is computed by dividing earning per share to market price per share. Thus,

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

(e) Market Price Per Share (MPS)

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

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

$$\text{Market Price Per Share (MPS)} = \text{P/E Ratio} * \text{Earnings Per Share}$$

(f) Earnings Yield (EY)

Earnings yield is the percentage of earning per share to market price per share in the stock market. In other words, it is a financial ratio relating to earning per share to the market share price at a particular time. It measures the earning in relation to market value of share. It gives some idea of how much an investor is earning for his money. This ratio shows the relationship between earning per share and market value per share. It is calculated by earning per share by market value per share.

The share with higher earnings yield is worth buying. Earnings yield is informative to compare the market share prices of stocks in the secondary market. It is calculated as:

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

(g) Dividend Yield (DY)

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

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

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

(h) Net Worth Per Share

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

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

ii. Statistical Tools

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

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

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

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

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

Where,

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

N = number of items

(b) Standard Deviation (σ)

Karl Pearson first introduced the concept of standard deviation in 1894. "It is the most usual measure of dispersion and it represents the square root of the variance of a group of numbers, i.e. the square root of the sum of the squared differences between a group of numbers and their arithmetic mean". Standard deviation is the positive square root of the arithmetic average of the squares of all the deviations measured from the arithmetic average of the series. The standard deviation measures the absolute dispersion of a distribution. The greater the amount of dispersion the greater the standard derivation, i.e. greater will be the magnitude of the deviations of

the values from their mean. It is denoted by a Greek letter ' σ ' (Sigma) and is calculated as follows:

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

Where,

N = Number of items in the series.

\bar{X} = Mean

X = Variable

(c) Coefficient of Variation (C.V.)

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

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

Where,

σ = Standard Deviation

(\bar{X}) = Mean

(d) Coefficient of Correlation (r)

According to Richard I. Levin, Correlation analysis is the statistical tools that we can used to describe the degree to which are variable is linearly related to another". The correlation analysis is the technique used to measure the closeness of the relationship between the variables. It helps us in determining the degree of relationship between

two or more variables. It describes not only the magnitude of correlation but also its direction. Thus, in this study, the degree of relationship between market price and other relevant financial indicators such as dividend per share, earning per share, dividend payout ratio etc. is measured by the correlation coefficient. The correlation coefficient can be calculated as:

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

or,

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

or,

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

Where,

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

$\text{Cov}(X, Y) =$ covariance of X, Y value

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

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

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

- a) Market Price Per Share and Earning Per Share
- b) Market Price Per Share and Dividend Per Share
- c) Market Price Per Share and Earning Per Share
- d) Market Price Per Share and Dividend Per Share
- e) Market Price Per Share and Dividend Payout Ratio
- f) Market Price Per Share and Price Earnings Ratio
- g) Market Price Per Share and Earning Yield
- h) Market Price Per Share and Dividend Yield
- i) Market Price Per Share and Earning Per Share
- j) Market Price Per Share and Dividend Per Share
- k) Market Price Per Share and Earning Per Share
- l) Market Price Per Share and Dividend Per Share
- m) Market Price Per Share and Dividend Payout Ratio
- n) Market Price Per Share and Price Earnings Ratio
- o) Market Price Per Share and Earning Yield
- p) Market Price Per Share and Dividend Yield
- q) Market Price Per Share and Net Worth Per Share
- r) Earnings Per Share and Dividend Per Share
- s) Earnings Per Share and Dividend Payout Ratio
- t) Dividend Per Share and Dividend Payout Ratio
- u) Dividend Per Share and Net Worth Per Share
- v) Earning Yield and Dividend Yield

(e) Coefficient of Determination (R^2)

The coefficient of determination is the primary way to measure the extent, or strength, of the association that exists between two variables, X and Y. "Coefficient of determination measures only the strength of a linear relationship between two variables." It refers to a measure of the total variance in a dependent variable that is explained by its linear relationship to an independent variable. The coefficient of determination is denoted by R^2 and the value lies between zero and unity. The closer to unity, the greater the explanatory power. A value of one can occur only if the unexplained variation is zero, which simply means that all the data points in the scatter diagram fall exactly on the regression line. The R^2 is always a positive number.

It can't tell whether the relationship between the two variables is positive or negative. The R^2 is defined as the ratio of explained variance to the total variance. Thus,

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

or,

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

(f) Regression Analysis

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

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

i) Market Price Per Share on Earning Per Share

$$Y = a + bX$$

Where,

Y = Market Price Per Share

a = Regression Constant

b = Regression Coefficient

X = Earnings Per share

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

ii) Market Price Per Share on Dividend Per Share

$$Y = a + bX$$

Where,

Y = Market Price Per Share

a = Regression Constant

b = Regression Coefficient

X = Dividend Per share

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

iii) Market Price Per Share on Dividend Payout Ratio

$$Y = a + bX$$

Where,

Y = Market Price Per Share

a = Regression Constant

b = Regression Coefficient

X = Dividend Payout Ratio

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

iv) Market Price Per Share on Dividend Yield

$$Y = a + bX$$

Where,

Y = Market Price Per Share

a = Regression Constant

b = Regression Coefficient

X = Dividend Yield

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

v) Dividend Per Share on Earning Per Share

$$Y = a + bX$$

Where,

Y = Dividend Per Share

a = Regression Constant

b = Regression Coefficient

X = Earnings Per Share

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

vi) Dividend Per Share on Net Worth Per Share

$$Y = a + bX$$

Where,

Y = Dividend Per Share

a = Regression Constant

b = Regression Coefficient

X = Net Worth Per Share

This model has been constructed to examine the relationship between dividend per share (dependent variable) and net worth per share (independent variable).

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

$$\Sigma Y = na + bX$$

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

Where,

'a' and 'b' are unknown.

n = number of observations in the sample

i) Regression Constant (a)

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

ii) Regression Coefficients (b)

The regression coefficient of each independent variable shows the relationship between that variable and value of dependent variable, holding the effects of all other independent variables of the regression model constant. In other words, these coefficients explain how changes in independent variables affect the values of dependent variables estimate.

iii) Standard Error of Estimate (S.E.E.)

Practically, the perfect prediction is not possible with the help of regression equation. Standard Error of Estimate is used to measure the reliability of the estimating equation. It measures the variability or scatter of the observed values around the regression line. It also measures the reliability of the estimating equation, indicating the variability of the observed values differ from their predicted values on the regression line.

The larger the value of S.E.E., the greater the scattering or dispersion of points around the regression line, conversely, if S.E.E. is equals to zero, then, there is no variation about the line and the correlation will be perfect. So, we expect the estimating equation to be a 'perfect' estimator of the dependent variable. In that case, all the data points would lie directly on the regression line and no points would be scattered around it. Similarly, the smaller the S.E.E., the closer will be the dots to the regression line and the better the estimates based on the equation for this line. Thus, with the help of standard error of estimate, it is possible for ascertaining how well and representative the regression line is as a description of the average relationship between two series.

$$\text{S.E.} = \frac{\sigma_x \sqrt{1-r^2}}{\sigma_y \sqrt{N}}$$

iv) t-statistics

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

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

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

4.3. Presentation of Financial Variables

Under this heading the financial variables have been presented and analyzed and calculations are done using programmed "SPSS version 26 For Windows.

4.3.1. Earnings Per Share (EPS)

Earnings Per Share of Banks Under Study is tabulated as follows:

Table 4.1

Earnings Per Share of Banks

Bank	2016	2017	2018	2019	2020	Mean	Std. Dev	C.V.
SCBNL	45.96	35.49	27.33	30.39	24.81	32.80	8.37	25.51
LBL	27.15	21.77	14.37	17.82	14.39	19.10	5.43	28.45
NABIL	59.27	59.86	51.84	50.57	36.16	51.54	9.57	18.57
MEGA	17.00	17.31	12.81	15.69	15.15	15.59	1.79	11.51
NBBL	39.43	28.05	14.95	19.63	15.01	23.41	10.42	44.52

NOTE FROM: ANNUAL REPORTS OF SAMPLE BANK

The EPS of Standard Chartered Bank Nepal Ltd. (SCBNL) range between Rs. 45.96 to Rs. 24.81 during the period of study. During this period, the average EPS is Rs. 32.80. The standard deviation of the EPS under the period of study is 8.37. The coefficient of variation (C.V) of the EPS is 25.51 indicates that there is a moderate fluctuation of 25.51% in the EPS of SCBNL, during the period of study.

The average EPS of Laxmi Bank Ltd, during this period of study is Rs. 19.10 It stayed within the range of Rs. 27.15 to Rs14.39. The standard deviation of EPS is 5.43

whereas the coefficient of variation is 28.45%. The CV indicates a moderate fluctuation in the EPS of the bank.

Nabil Bank Limited has the EPS range between Rs. 59.27 and Rs. 36.16 during the period of study. An average EPS of Rs. 51.54 is noted during this period. The standard deviation of the EPS is 9.57. The C.V. of 18.57 indicates that there is a fluctuation of 18.57% in the EPS of Nabil Bank during the period of study.

Mega Bank Nepal Limited has the EPS range between Rs. 17 to Rs. 15.15 during the period of study. An average EPS of Rs. 15.59 is noted during this period. The standard deviation of the EPS is 1.79. The C.V. of 11.51% indicates that there is a fluctuation of 11.51% in the EPS of Mega Bank during the period of study.

Nepal Bangladesh Bank Limited (NBBL), within the period of study, had an average EPS of Rs.23.41, ranging between Rs. 39.43 and Rs. 15.01. The standard deviation is 10.42 and the fluctuation of 44.52% in the EPS is seen during this period, which shown by the coefficient of variation of the bank.

The earning per share of the sample banks.

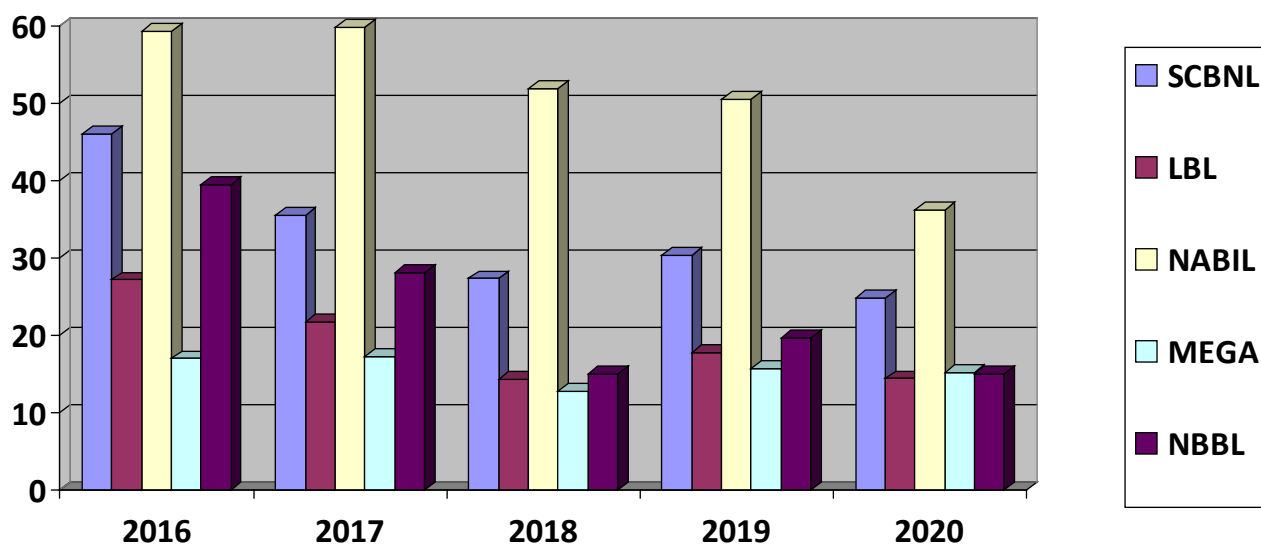


Figure No: 4.1 Earning Per Share of the banks

This figure 4.1 analysis, it can be seen that the EPS is ranges from 2016 to 2020. The EPS range of the banks under study during this period is between Rs. 45.96 to Rs.

12.81. If compared, Mega Bank has the lowest EPS and the Nabil Bank has the highest EPS among all sample banks.

4.3.2. Dividend Per Share (DPS)

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

Table 4.2

Dividend per share of the banks

Bank	2016	2017	2018	2019	2020	Mean	Std. Dev	C.V.
SCBNL	1.75	5.26	17.50	22.50	4.84	10.37	9.07	87.45
LBL	0.00	0.53	0.45	5.00	2.50	1.70	2.08	122.80
NABIL	15.00	18.00	22.00	22.00	1.76	15.75	8.36	53.06
MEGA	0.86	0.00	6.85	11.75	3.05	4.50	4.84	107.50
NBBL	1.68	3.79	10.53	7.00	2.42	5.08	3.66	72.06

NOTE FROM: ANNUAL REPORTS OF SAMPLE BANK

The average DPS of Standard Chartered Bank Nepal Ltd. (SCBNL) has Rs. 10.37 with the standard deviation of 9.07. The highest and lowest DPS are Rs. 22.50 and Rs. 1.75 respectively. The coefficient of variation is 87.45%, which indicates that there is less fluctuation in the DPS of SCBNL during the period of study.

Laxmi Bank Limited (LBL) has an average DPS of Rs. 1.70. The highest DPS is Rs. 5.00 whereas it has not paid dividend in the year 2016. The standard deviation is 2.08 and coefficient of variation is 122.80%.

Nabil Bank Limited paid the highest DPS of Rs. 22.00. An average DPS of Rs. 15.75 has been noted during the study period. The standard deviation of the DPS is 8.36. The C.V. of 53.06% indicates that there is a high fluctuation in the DPS of Nabil Bank.

Nepal Bangladesh Bank Limited (NBBL) has an average DPS of Rs 5.08, during the period of study. The standard deviation is 3.66 and the fluctuation of 72.06% in the DPS is seen during this period.

The Dividend per share of the sample banks.

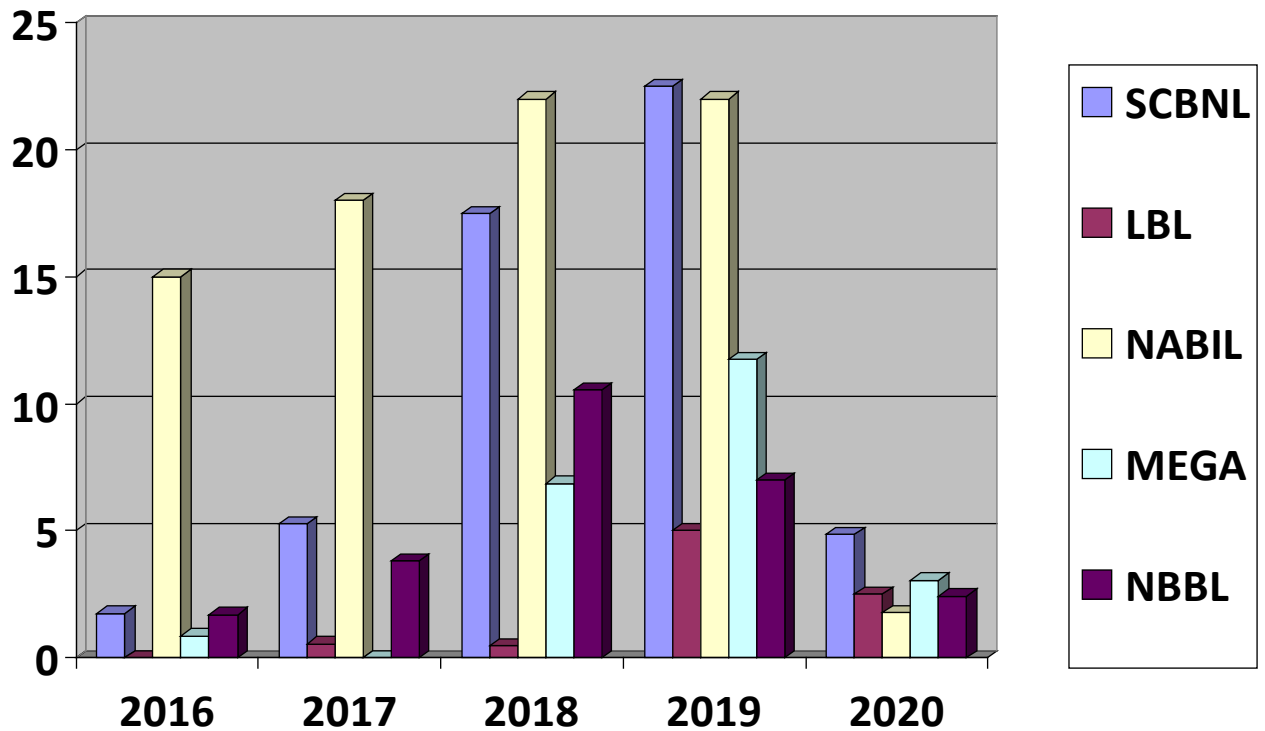


Figure No: 4.2 Dividend Per Share of the banks

This figure 4.2, shows that the total amount of dividends that the company has given out over a year divided by total number of average shares that the company holds; this gives a view of the total amount of operating profits that the company has sent out of the company as a profit shared with shareholders that need not be reinvested. According to the above figure, Nabil Bank has the highest DPS in year 2016 to 2018 but from 2019 to 2020 Standard Chartered Bank has the highest DPS among all banks. In year 2016, 2018 and 2019, the lowest DPS is Laxmi Bank and Mega Banks has in 2017. But in year 2020 Nabil Bank has the lowest DPS. This figure shows that the DPS of the banks are fluctuating according to the specific year.

4.3.3. Dividend Payout Ratio (DPR)

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

Table 4.3

Dividend Payout Ratio (DPR) of Banks

Bank	2016	2017	2018	2019	2020	Mean	Std. Dev	C.V.
SCBNL	101.83	330.18	37.40	48.16	29.62	109.44	126.59	115.67
LBL	103.77	26.83	23.75	40.62	37.53	46.50	32.78	70.50
NABIL	75.93	80.19	68.68	67.24	97.51	77.91	12.17	15.62
MEGA	42.99	40.55	17.99	33.67	42.43	35.53	10.48	29.51
NBBL	105.09	48.47	0.00	26.14	42.74	44.49	38.75	87.11
		AVERAGE DPR				62.77	44.16	63.68

NOTE FROM: ANNUAL REPORTS OF SAMPLE BANK

The average DPR of Standard Chartered Bank Nepal Ltd. (SCBNL) has 109.44%. It means that SCBNL generally pays 109.44% of its total earning as dividend to its shareholders. The standard deviation of DPR is 126.59. The coefficient of variation is 115.67% fluctuations in the DPR of the bank over the years.

An average DPR of 46.50% of Laxmi Bank indicates that LBL generally pays out 46.50% of its earning as dividend. The standard deviation is 32.78 and coefficient of variation is 70.50%. The CV indicates that the DPR of LBL widely varies during the period of study.

Nabil Bank Ltd has an average DPR of 77.91% during this period of study. It means that it generally pays 77.91% of its earning to its shareholders in form of dividend. The standard deviation of DPR is 12.17 whereas the coefficient of variation of 15.62% indicates the fluctuating nature of DPR in NABIL Bank Ltd.

If analysis is done taking the mean DPR of the sample banks, the average Dividend payout ratio of the sample banks comes out to 62.77% with a standard deviation of

44.16 and CV of 63.68% It indicates that, in average, out of the total earnings made, 62.77% is distributed as dividend to the shareholders with a fluctuation of 63.68%.

The Dividend Payout Ratio of the sample banks.

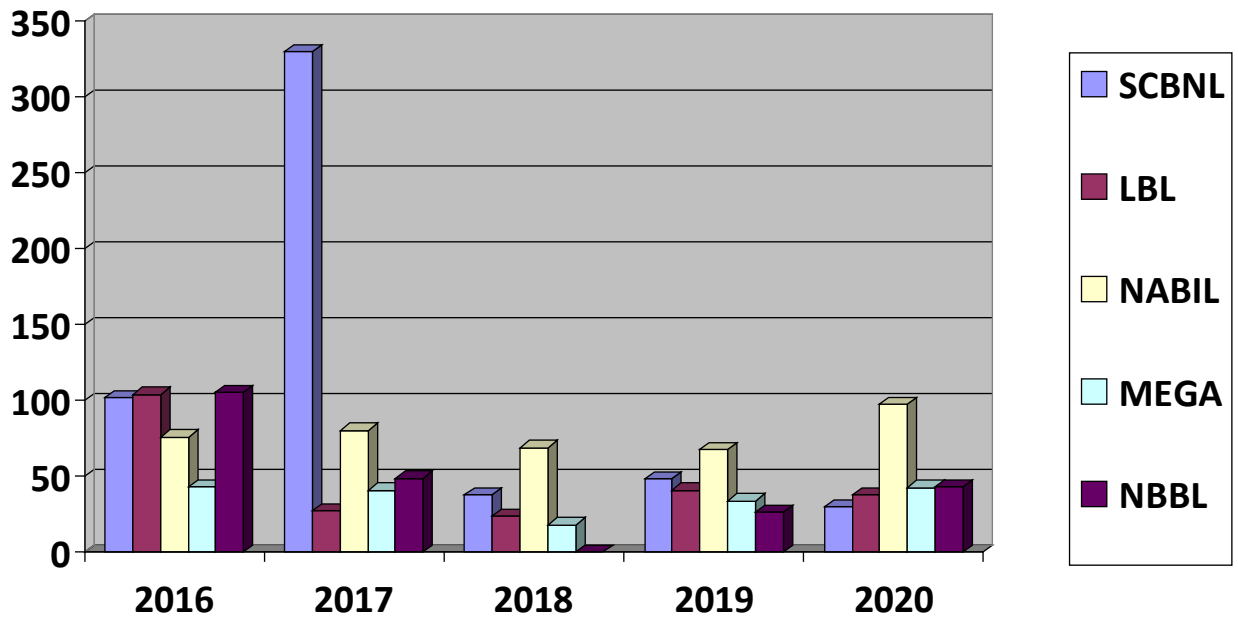


Figure No: 4.3 Dividend Payout Ratio of the banks

In figure 4.3, the study shows that DPR is 330.18 to 0 in the period of the year. The figure explains what portion of the current earnings the company is paying to its stockholders in the form of dividend and what portion the company is ploughing back in the business for growth in future. It is computed by dividing the dividend per share by the earnings per share (EPS) for a specific period. The figure shows that Standard Chartered Bank has the highest DPR in year 2017. In year 2018 to 2020 Nabil Bank has the highest DPR but in year 2016, Nepal Bangladesh Bank has highest DPR among the banks and Mega Bank has the lowest DPR in year 2016 and in year 2018 and so on. Nepal Bangladesh bank has 0 DPR which shows that the bank has not pay the dividend in the year 2018. The figure indicates the DPR of the banks have been fluctuating year by year. Nabil Bank has the highest consistency in paying dividend whereas the DPR of Standard Chartered Bank has highly fluctuating.

4.3.4. Market Price Per Share (MPS)

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

Table: 4.4

Market Price Per Share of the banks

Bank	2016	2017	2018	2019	2020	Mean	Std. Dev	C.V.
SCBNL	3600.00	2295.00	755.00	682.00	645.00	1595.40	1318.30	82.63
LBL	876.00	390.00	258.00	226.00	209.00	391.80	279.85	71.43
NABIL	2344.00	1523.00	921.00	800.00	765.00	1270.60	673.65	53.02
MEGA	565.00	458.00	163.00	213.00	201.00	320.00	179.81	56.19
NBBL	860.00	402.00	214.00	222.00	209.00	381.40	279.57	73.30

NOTE FROM: ANNUAL REPORTS OF SAMPLE BANK

The average of closing MPS of Standard Chartered Bank Nepal Ltd. (SCBNL) during the period of study is Rs. 1595.40 with a standard deviation of 1318.30 and a coefficient of variation of 82.63%.

During the period of study, Laxmi Bank (LBL) has an average closing MPS of Rs. 391.80 with a standard deviation of 279.85. The coefficient of variation shows that there is a fluctuation of 71.43% in closing MPS of LBL.

The average of closing MPS of NABIL Bank Ltd, during this period of study is Rs. 1270.60. It stayed within the range of Rs. 2344 and Rs.765. The standard deviation of closing MPS is 673.65 whereas the coefficient of variation is 53.02%. The CV indicates an above-moderate fluctuation in the closing MPS of the bank.

From the above data and calculations, it can be seen that the average closing MPS of SCBNL has the highest and that of MEGA has the lowest. Similarly, the standard deviation of SCBNL has the highest and MEGA has the lowest. The coefficient of

variation of these banks shows that there is an above-moderate level of fluctuation in the MPS.

The Market Price Per Share of the sample banks.

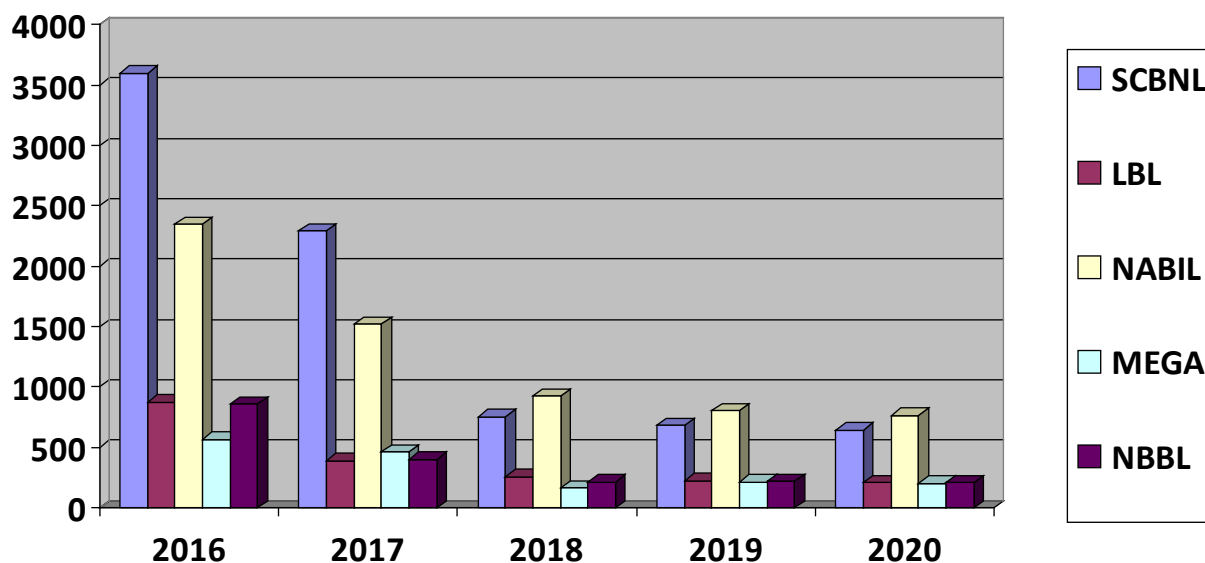


Figure No: 4.4 Market Price Per Share of the banks

In figure 4.4, shows that the most recent price of a single share in a publicly traded stock. The study shows that MPS is 3600 to 163 according to period of the year. It fluctuates throughout the trading day as various market forces push the price in different directions. Unlike the book value per share, the market price per share has no specific relation to the value of the company's assets or any other balance sheet information. Standard Chartered Bank has the highest Market Price per Share in year 2016 and 2017 then after the MPS has been slowly decreasing. In year 2018 to 2020 Nabil Bank has the highest MPS in the period of the year. The MPS of the Laxmi Bank has been fluctuating in the period of the year. Among the five banks, the figure shows that the lowest MPS among the banks are Mega Bank, Laxmi Bank and Nepal Bangladesh Bank. The MPS of the Nabil Bank and Standard Chartered Bank has been fluctuating slowly rather than other banks in the period of the study.

4.3.5. Price Earnings Ratio (P/E Ratio)

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

Table: 4.5

Price Earnings Ratio of the banks

Bank	2016	2017	2018	2019	2020	Mean	Std. Dev	C.V.
SCBNL	78.33	64.67	27.62	22.44	26.00	43.81	25.80	58.89
LBL	32.26	17.91	17.96	12.68	14.53	19.07	7.71	40.45
NABIL	39.55	25.44	18.60	15.82	21.15	24.11	9.33	38.68
MEGA	33.23	26.47	12.73	13.58	13.27	19.86	9.44	47.52
NBBL	21.81	14.33	14.32	11.31	13.92	15.14	3.94	26.00

NOTE FROM: ANNUAL REPORTS OF SAMPLE BANK

The average P/E Ratio of SCBNL, during this period of study is 43.81. It is within the range of 78.33 and 22.44. The standard deviation of P/E Ratio is 25.80 whereas the coefficient of variation of 58.89% indicates the fluctuating nature of P/E Ratio in SCBNL which is very high.

Laxmi Bank Limited (LBL) has an average P/E Ratio of 19.07, ranging between 32.26 and 12.68, during the period of study. The standard deviation is 7.71 and the fluctuation of 40.45% in the P/E Ratio is seen during this period.

NABIL Bank Ltd has an average P/E Ratio of 24.11. The standard deviation is 9.33 and coefficient of variation is 38.68%. The CV indicates that the P/E Ratio of NABIL Bank Ltd is quite fluctuating.

From the above calculations, SCBNL has the highest average P/E Ratio and NBBL has the lowest. The CV indicates that among the banks under study during the period,

Mega Bank has the highest consistency in P/E Ratio whereas the P/E Ratio of Nabil Bank is highly fluctuating.

The Price Earnings Ratio of the sample banks.

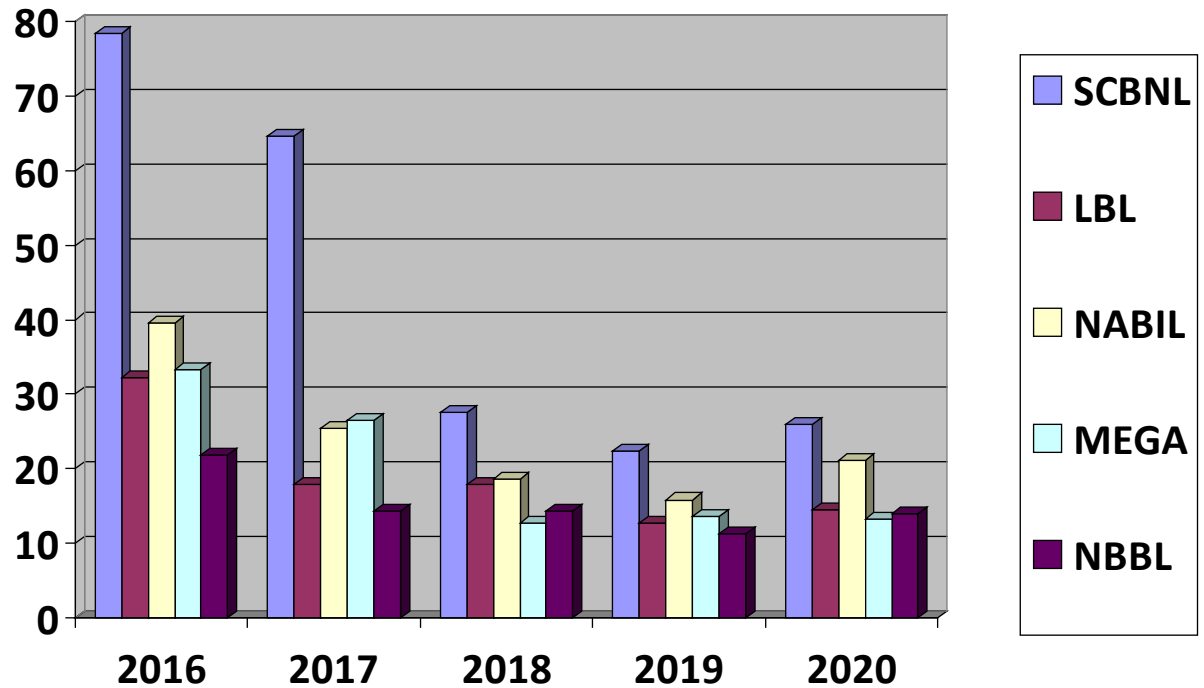


Figure No: 4.5 Price Earnings Ratio of the banks

In figure 4.4, the study shows that P/E Ratio of the banks are 78.33 to 11.31 according to period of the year. Standard Chartered Bank has the highest P/E Ratio among the banks in the period of the study. The Mega Bank has lowest P/E Ratio in year 2018 and 2020 but in year 2016 and 2017 Nepal Bangladesh Banks has lowest P/E Ratio. The figure shows that the bank's stock value is highly fluctuating in the period of the study. P/E ratio will change as the price of a company's stock moves, since earnings are only released each quarter while stocks trade day in and day out. According to the figure, the Standard Chartered Bank has the overvalued stock than other banks.

4.3.6. Earning Yield (EY)

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

Table 4.6

Earning Yield of the Banks

Bank	2016	2017	2018	2019	2020	Mean	Std. Dev	C.V.
SCBNL	1.28	1.55	3.62	4.46	3.85	2.95	1.44	48.76
LBL	3.10	5.58	5.57	7.88	6.89	5.80	1.80	30.95
NABIL	2.53	3.93	5.38	6.32	4.73	4.58	1.44	31.49
MEGA	3.01	3.78	7.86	7.37	7.54	5.91	2.32	39.25
NBBL	4.58	6.98	6.99	8.84	7.18	6.91	1.52	21.98

NOTE FROM: ANNUAL REPORTS OF SAMPLE BANK

The average EY of 2.95% with the standard deviation of 1.44 is seen for Standard Chartered Bank Nepal Ltd. (SCBNL). The highest and lowest EY are 4.46% and 1.28% respectively. The coefficient of variation is 48.76%, during the period of study.

Laxmi Bank Ltd (LBL) has an average EY of 5.80%. The standard deviation is 1.80 and coefficient of variation is 30.95%. The CV indicates that the EY of LBL is quite fluctuating.

The average EY of NABIL Bank Ltd, during this period of study is 4.58%. It is within the range of 6.32% and 2.53%. The standard deviation of EY is 1.44 whereas the coefficient of variation of 31.49%.

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

The Earning yield of the sample banks.

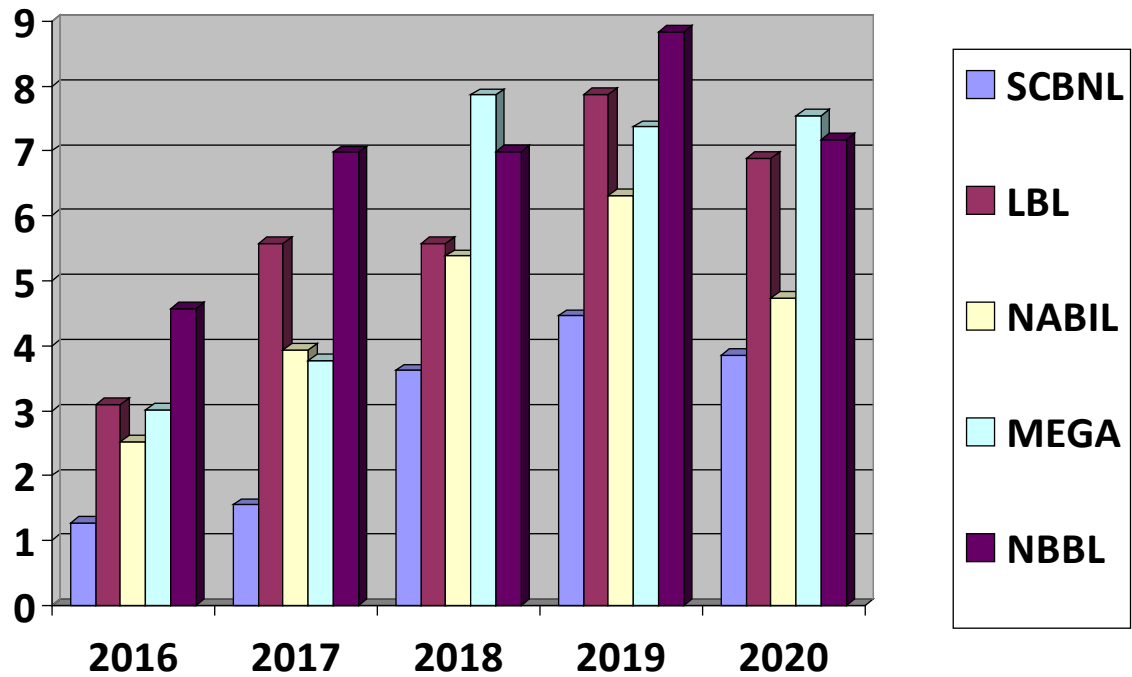


Figure 4.6 Earning Yield of the banks

The figure 4.6, shows that financial ratio that describes the relationship of the banks to the bank's stock price per share. The Earning Yield of the period of the year is 8.84 to 1.28. The figure shows that the Nepal Bangladesh bank has the highest EY in the year 2016 ,2017 and 2019 but decreases in the year 2018 and 2020. The Standard Chartered Bank has the lowest EY which shows that the bank has earn lowest in relation to its current price.

4.3.7. Dividend Yield (DY)

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

Table 4.7

Dividend yield of the banks

Bank	2016	2017	2018	2019	2020	Mean	Std. Dev	C.V.
SCBNL	0.97	4.59	2.32	3.30	1.84	2.60	1.39	53.50
LBL	4.34	2.56	3.29	6.64	5.50	4.47	1.65	36.84
NABIL	1.92	3.15	3.69	4.25	4.61	3.52	1.05	29.92
MEGA	3.06	3.32	4.82	5.52	6.49	4.64	1.45	31.34
NBBL	3.72	2.99	0.00	2.25	2.87	2.37	1.42	60.10

NOTE FROM: ANNUAL REPORTS OF SAMPLE BANK

The DY of Standard Chartered Bank Nepal Ltd. (SCBNL) range between 4.59% and 0.97% during the period of study. During this period, the average DY is 2.60%. The standard deviation of the DY under the period of study is 1.39. The C.V. of 53.50% indicates that the fluctuation of in DY of SCBNL has the modest.

During the period of study, Laxmi Bank Ltd. (LBL) has an average DY of 4.47% with a standard deviation of 1.65. The DY range between 5.50% and 2.56%. The coefficient of variation shows that there is a fluctuation of 36.84% in DY of LBL.

The average DY of NABIL Bank Ltd, during this period of study is 3.52%. It stayed within the range of 4.61% and 1.92% (in 2016/2020). The standard deviation of DY is 1.05 whereas the coefficient of variation is 29.92%. The CV indicates a lowest fluctuation in the DY of the bank.

From the above data and calculations, it can be seen that the average DY of Mega Bank has the highest and that of NBBL has the lowest. The DY range of the banks under study during the period is between 6.64% and 0.00%. Similarly, the standard deviation of LBL has the highest and NABIL has the lowest. The coefficient of

variation of these banks shows a high level of fluctuation in the DY. If compared, NABIL has the most consistent DY among these banks.

The dividend yield of the sample banks.

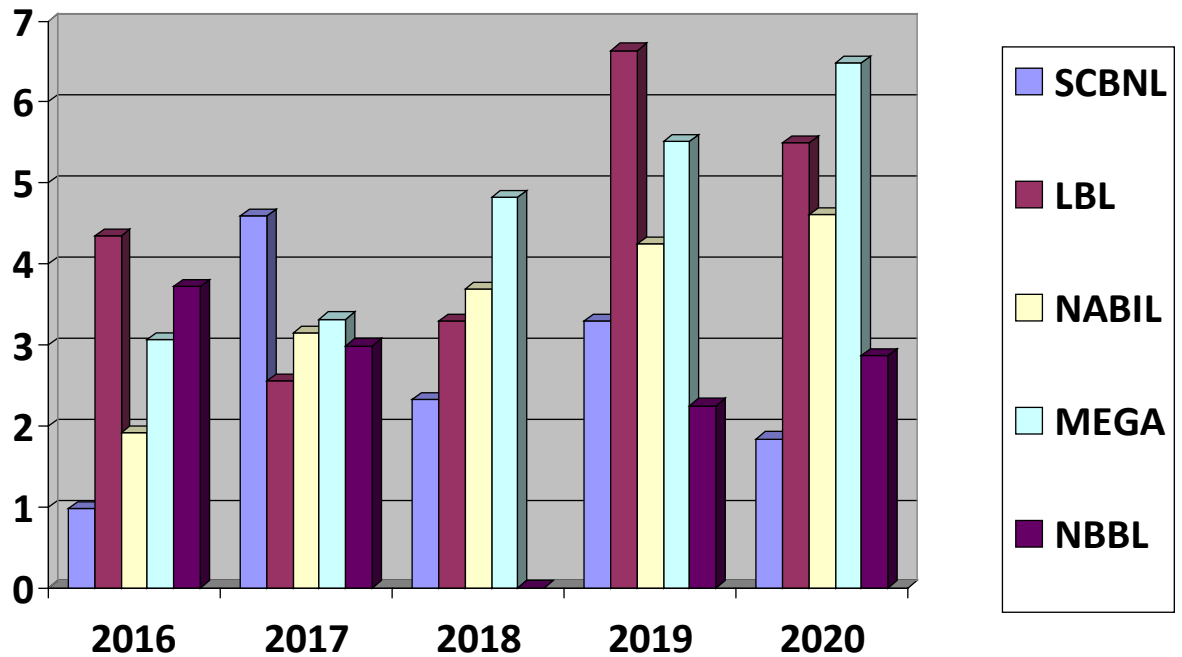


Figure 4.7 Dividend Yield of the Banks

The figure, shows that the bank's share considering only the returns in the form of the total dividends declared by the bank during the period of the year. Dividend yield is the financial ratio that measures the quantum of cash dividends paid out to shareholders relative to the market value per share. According to the figure, the DY of the banks has been fluctuating simultaneously in the period of the study. The Standard Chartered Bank has the lowest DY in the year 2016 to 2020 but in year 2017 it has highest DY among the banks which shows that the bank's financial ratio is low so that the bank's substantial share of its profit in the form of dividends is also low.

4.1.8 Net Worth Per Share (NWPS)

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

Table 4.8

Net Worth Per Share of the banks

Bank	2016	2017	2018	2019	2020	Mean	Std. Dev	C.V.
SCBNL	268.00	303.68	173.46	187.87	188.51	224.30	57.89	25.81
LBL	185.77	129.21	130.73	154.08	142.24	148.41	23.17	15.61
NABIL	259.70	246.00	225.23	280.57	255.45	253.39	20.19	7.97
MEGA	128.65	127.97	120.48	122.26	131.64	126.20	4.66	3.69
NBBL	151.00	148.00	142.88	143.43	154.15	147.89	4.84	3.28

NOTE FROM: ANNUAL REPORTS OF SAMPLE BANK

The table 4.8 shows that, the average Net Worth Per Share (NWPS) of the banks under study range between Rs. 224.30 (SCBNL) and Rs. 148.41 (LBL). NABIL, MEGA and NBBL have the average NWPS of Rs. 253.39, Rs. 126.20 and Rs. 147.89 respectively. Similarly, the CV shows the highest consistency in the NWPS of NBBL (3.28%) whereas the NWPS of SCBNL has the highest fluctuating tendency (25.81%) among the banks. The CV of NWPS of LBL, MEGA and NABIL are 15.61%, 3.69% and 7.91% respectively, which shows a moderate level of fluctuation.

The Net Worth Per Share of the sample Banks.

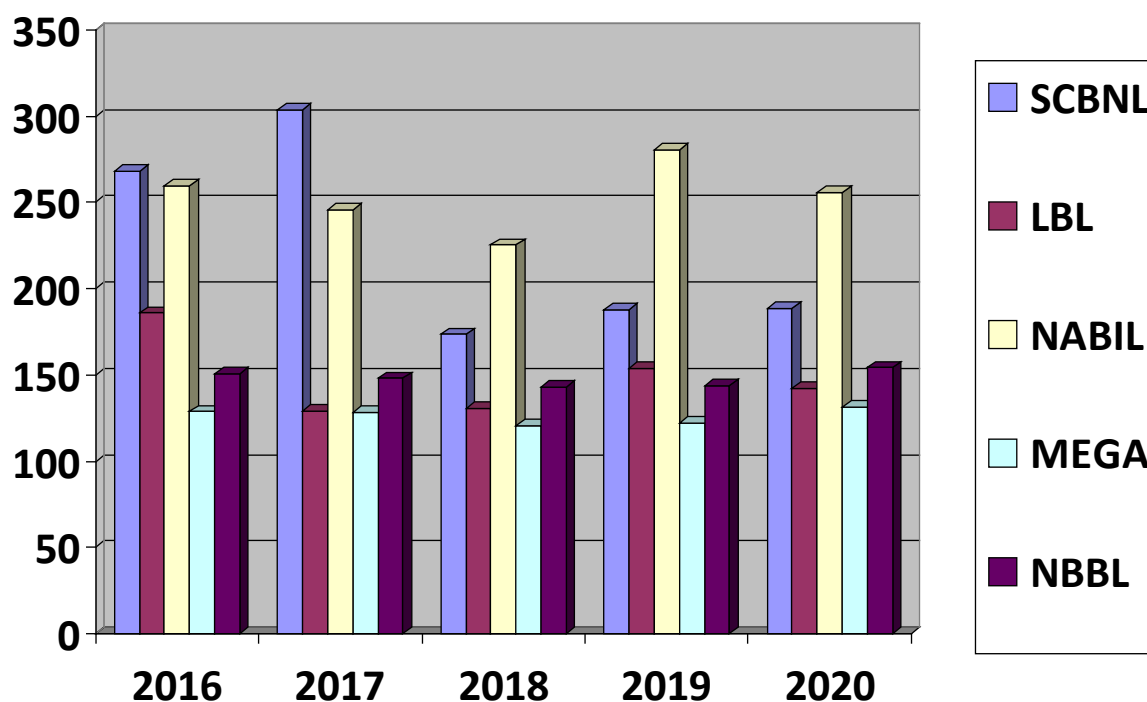


Figure 4.8 The Net Worth Per Share of the Banks

The above figure, shows that the measurement of the net worth of the banks for each share of the stock has been issued in the period of the year. The Net Worth Per Share of the banks are 303.68 to 120.48 in the period of the year. The figure shows that Standard Chartered Bank and Nabil Bank has the highest Net Worth Per Share than other banks. The Mega Bank has the lowest Net Worth among the banks which shows that the Standard Chartered Bank and Nabil Bank has good financial strength and ultimately good credit value of the banks whereas the Mega Bank has weaker financial strength and a lower credit value. Thus, directly affecting the bank's ability to raise funds from the market.

4.4. Statistical Tools

The statistical tools (i.e. correlation coefficient and regression analysis) is calculated using the program 'SPSS 26 for Windows.'

4.4.1. Correlation Analysis

The correlation coefficient measures the relation between two or more variables. It also measures the extent to which one variable effect the other one. The correlation coefficient lies between +1 and -1. The +1 coefficient indicates that the variables are perfectly positively correlated and -1 coefficient indicates that the variables are perfectly negatively correlated. And if the correlation coefficient is 0, it means that the variables are not related to each other. The negative correlation indicates that increase in value of one variable leads to decrease in the value of the other and positive correlation indicates that increase in value of one variable leads to increase in the value of the other variable also. The numbers indicate the degree of correlation between the variables.

The table given below shows the correlation coefficient (r) between the financial variables.

Standard Chartered Bank Nepal Ltd.

Table 4.9:

Correlation Coefficient of SCBNL

	EPS	DPS	DPR	PER	EY	DY	NWPS
MPS	0.967	-0.683	0.497	0.984	-0.939	-0.212	0.831
EPS	-	-0.498	0.395	-	-	-	-
DPS	-	-	-0.409	-	-	-	-0.662
EY	-	-	-	-	-	0.015	-

The table 4.9 depicts that the MPS of SCBNL has positive correlation with its EPS and DPR. It is because of the reason that it is paying dividend regularly and with the payment of dividend, the MPS has been increasing. In the same way, MPS of SCBNL is positively correlated with its P/E Ratio and MPS to NWPS. On the other hand, the MPS is negatively correlated the DPS, EY and DY. Similarly, the EPS has negative relation with its DPS. But it is positively correlated with the DPR since in the FY 2016/20, even if there is increase in DPR, the DPS has decreased. Also, the DPS of SCBNL is negatively correlated with the DPR as well as with the NWPS. In the same way the EY is positively correlated with the DY.

Laxmi Bank Ltd.

Table 4.10

Correlation Coefficient of LBL

	EPS	DPS	DPR	PER	EY	DY	NWPS
MPS	0.92	-0.578	0.911	0.976	-0.905	-0.244	0.797
EPS	-	-0.417	0.794	-	-	-	-
DPS	-	-	-0.265	-	-	-	-0.027
EY	-	-	-	-	-	0.565	-

The table 4.10 indicates that the MPS of LBL is negatively correlated with its DPS and DY which is because of irregularity in payment of dividends. Also, it has negative correlation with its EY due to regular decrease in earnings of the bank. MPS has positive correlation with its EPS, MPS to P/E Ratio, MPS to DPR and NWPS. Similarly, the EPS is positively correlated with its DPR. It is because of the reason that the DPR are decreased with the decrease in the EPS and negatively correlated with its DPS because of the reason that the DPS are increased with the increase in the EPS. Also, the DPS of LBL has negative correlation with the DPR and NWPS. The

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

NABIL Bank Ltd.

Table 4.11:

Correlation Coefficient of NABIL

	EPS	DPS	DPR	PER	EY	DY	NWPS
MPS	0.718	0.076	-0.098	0.964	-0.911	-0.973	0.017
EPS	-	0.7	-0.623	-	-	-	-
DPS	-	-	-0.963	-	-	-	-0.083
EY	-	-	-	-	-	0.837	-

The table 4.11 is found that the MPS of NABIL has positive correlation with its DPS. It is because of regularity in paying dividend. In the same way, MPS of NABIL is positively correlated with its EPS, P/E Ratio and MPS to NWPS. In the other hand the MPS has negative correlation with the EY, DY and DPR. Likewise, the EPS has positive correlation with the DPS but is negatively correlated with the DPR. It is because in some years, the DPR has been increased even if the EPS is decreased. Also, the DPS is negatively correlated with the DPR and with its NWPS. In the same way the EY of the bank is positively correlated with its DY.

Mega Bank Nepal Ltd.

Table 4.12

Correlation Coefficient of Mega Bank Nepal Ltd

	EPS	DPS	DPR	PER	EY	DY	NWPS
MPS	0.822	-0.714	0.617	0.997	-0.995	-0.871	0.452
EPS	-	-0.519	0.86	-	-	-	-
DPS	-	-	-0.564	-	-	-	-0.74
EY	-	-	-	-	-	0.892	-

The table 4.12 reveals that the MPS of Mega Bank is negatively correlated with its DPS and DY because of irregularity in payment of dividends and non-payment of dividend in FY 2017/18. It has also negative correlation with its EY. MPS has positive correlation with its EPS, P/E Ratio, MPS to DPR and NWPS. Similarly, the EPS is negatively correlated with its DPS and positively correlated with its DPR. It is because of the reason that the DPS are decreasing even if the EPS has increased and DPR are increasing with increased in EPS. Also, the DPS of Mega Bank has negative correlation with the DPR and also negatively correlated with NWPS. The correlation between EY and DY is also positive due to the same type of relation of EY and DY with the MPS.

Nepal Bangladesh Bank Ltd.

Table 4.13:

Correlation Coefficient of NBBL

	EPS	DPS	DPR	PER	EY	DY	NWPS
MPS	0.963	-0.589	0.917	0.939	-0.872	0.622	0.362
EPS	-	-0.599	0.897	-	-	-	-
DPS	-	-	-0.853	-	-	-	-0.891
EY	-	-	-	-	-	-0.392	-

The table 4.13 reveals that the MPS of NBBL has negative correlation with the DPS because of non-payment of dividend in FY 2018/19. The positive correlation between MPS to EPS. It is because of regular increase in EPS, with increased in MPS. But there is negative correlation between MPS to EY. In the same way, MPS of NBBL is positively correlated with its DPR, P/E Ratio, DY and NWPS. Similarly, the EPS has positive correlation with DPR because of decreasing with the decrease in EPS and has negative correlation with DPS because of the reason that the DPS are decreasing even if the EPS has increased. In the same way, DPS of NBBL is negatively correlated with the DPR and with its NWPS. Also, the EY of the bank is negatively correlated with its DY of the bank.

From the above analysis, the MPS of the bank (NABIL) who are paying dividend regularly have positive correlation with their dividend component i.e. DPS. It means that the MPS of these banks will increase with the increase in dividend and vice versa. In contrast the MPS of the banks (LBL, SCBNL, MEGA and NBBL) who have fluctuating nature of dividends some are negatively correlated with their dividend component and some are positively correlated. i.e. increase in dividend leads to decrease in MPS and vice versa. The non-payment of dividend also has leads to the negative correlation between MPS and the dividend components.

The correlation between MPS and EPS of all banks (SCBNL, LBL, NABIL, MEGA and NBBL) is positive, which is due to the reason that there is increase in EPS with the increased in MPS of the banks and vice versa.

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

4.4.2. Regression Analysis

4.4.2.1. MPS on EPS

$$\text{MPS} = \text{a} + \text{b} \times \text{EPS}$$

Table 4.14:

Regression Analysis of MPS on EPS

Bank	Variables	B	Std Error	T value	Sig. T	R ²
SCBNL	Constant (a)	-3400.81	-	-4.350	0.022	0.935
	EPS	152.342	23.239	6.556	0.007	
LBL	Constant (a)	-513.521	-	-2.242	0.111	0.847
	EPS	47.399	11.622	4.078	0.027	
NABIL	Constant (a)	-1334.17	-	-0.903	0.433	0.516
	EPS	50.539	28.272	1.788	0.172	
MEGA	Constant (a)	-964.470	-	-1.868	0.159	0.676
	EPS	82.380	32.943	2.501	0.088	
NBBL	Constant (a)	-223.610	-	-2.137	0.122	0.928
	EPS	25.840	4.151	6.225	0.008	

The above table of regression analysis shows that among the banks under study, SCBNL, LBL, NABIL, MEGA and NBBL have positive relation between MPS and EPS. The regression relation between MPS and EPS of SCBNL indicates that with an increase of Rs. 1 in EPS, the MPS will also be increase by Rs. 152.342 other variables remaining constant. Similarly, in case of LBL and NBBL, with an increase of Rs. 1 in

EPS, the MPS will incline by Rs. 47.399 and Rs. 25.840 respectively assuming that the other variables are constant. In contrast there will be increase in MPS of NABIL and MEGA by Rs. 50.539 and Rs. 82.380 respectively with an increase in EPS by Rs. 1 remaining another variable constant.

The standard error of estimate of SCBNL, LBL, MEGA, NABIL and NBBL are 23.239, 11.622, 32.943, 28.272 and 4.151 respectively. These values indicate the probable error in the predicted value for the respective banks.

4.4.2.2. MPS on DPS

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

Table 4.15:

Regression Analysis of MPS on DPS

Bank	Variables	b	Std Error	T value	Sig. T	R ²
SCBNL	Constant (a)	2625.256	-	3.254	0.047	0.467
	DPS	-99.311	61.289	-1.620	0.204	
LBL	Constant (a)	523.478	-	3.282	0.046	0.334
	DPS	-77.640	63.314	-1.226	0.308	
NABIL	Constant (a)	1174.221	-	1.452	0.243	0.006
	DPS	6.119	46.396	0.132	0.903	
MEGA	Constant (a)	439.411	-	4.684	0.018	0.510
	DPS	-26.524	15.021	-1.766	0.176	
NBBL	Constant (a)	609.955	-	2.833	0.066	0.347
	DPS	-44.956	35.600	-1.263	0.296	

The table 4.15 of regression analysis of MPS and DPS shows that among the banks under study, NABIL have positive regression relation between DPS and MPS of the bank. Whereas SCBNL, LBL, MEGA and NBBL have negative relation between MPS and DPS. The regression relation between MPS and DPS of NABIL indicate that with an increase of Rs. 1 in DPS, the MPS will increase by Rs. 6.119, other variables remaining constant. In contrast there will be decrease in MPS of SCBNL,

LBL, NBBL and MEGA by Rs. 99.311, Rs. 77.64, Rs. 44.956 and Rs. 26.524 respectively with an increase in DPS by Rs.1 assuming that the other variables are constant.

The coefficient of multiple determination (R^2) is lowest for NABIL (0.006), which indicates that only 0.6% variance in the MPS is explained by DPS i.e. 0.6% variation in MPS of the bank is explained due to the change in value of DPS of the bank. This value is highest in case of MEGA (0.510). This indicates that 51% in variation in MPS of MEGA is explained due to change in DPS of the bank. The value of R^2 of SCBNL, LBL and NBBL are 0.467, 0.334 and 0.347 respectively, which indicate that 46.7%, 33.4% and 34.7% variation in the MPS of these banks are explained due to the change in DPS of the respective banks.

4.4.2.3. MPS on DPR

$$\text{MPS} = a + b \times \text{DPR}$$

Table 4.16:

Regression Analysis of MPS on DPR

Bank	Variables	B	Std Error	T value	Sig. T	R ²
SCBNL	Constant (a)	1029.345	-	1.253	0.299	0.247
	DPR	5.172	5.218	0.991	0.395	
LBL	Constant (a)	30.299	-	0.271	0.804	0.829
	DPR	7.774	2.035	3.820	0.032	
NABIL	Constant (a)	1693.021	-	0.677	0.547	0.010
	DPR	-5.422	31.808	-0.170	0.875	
MEGA	Constant (a)	-56.084	-	-0.196	0.857	0.381
	DPR	10.588	7.790	1.359	0.267	
NBBL	Constant (a)	86.957	-	0.930	0.421	0.842
	DPR	6.618	1.657	3.994	0.028	

The regression analysis between MPS and DPR shows positive relation between MPS and DPR of SCBNL, LBL, NBBL and MEGA while negative relation between MPS and DPR of NABIL. The regression relation between MPS and DPR of SCBNL,

LBL, NBBL and MEGA indicates that with an increase of 1% in DPR, the MPS will increase by Rs.5.172, Rs. 7.774, 6.618 and Rs. 10.588 respectively assuming that the other variables are constant. In the other hand with an increase in 1% in DPR, the MPS of NABIL will decrease by Rs. 5.422 other variables remaining constant.

The standard error of estimate of SCBNL, LBL, NABIL, NBBL and MEGA are 5.218, 2.035, 31.808, 7.790 and 1.657 which indicate the possible error in the predicted value for the respective banks.

4.4.2.4. MPS on DY

$$\text{MPS} = \mathbf{a} + \mathbf{b} \times \text{DY}$$

Table 4.17:

Regression Analysis of MPS on DY

Bank	Variables	B	Std Error	T value	Sig. T	R ²
SCBNL	Constant (a)	2117.701	-	1.374	0.263	0.045
	DY	-200.576	533.938	-0.376	0.732	
LBL	Constant (a)	577.291	-	1.289	0.288	0.060
	DY	-41.534	95.233	-0.436	0.692	
NABIL	Constant (a)	3461.769	-	11.184	0.002	0.947
	DY	-621.785	84.847	-7.328	0.005	
MEGA	Constant (a)	819.844	-	4.857	0.017	0.759
	DY	-107.678	35.013	-3.075	0.054	
NBBL	Constant (a)	92.222	-	0.386	0.725	0.386
	DY	122.222	88.911	1.375	0.263	

The table 4.17 of regression analysis shows that among the banks under study, except all banks NBBL have positive regression relation between MPS and DY. The regression relation between MPS and DY of NBBL indicates that with an increase of 1% in DY, the MPS will increase by Rs. 122.222 other variables remaining constant. In contrast there will be decline in MPS of SCBNL, NABIL, LBL and MEGA by Rs. 200.576, Rs. 621.785, Rs. 41.534 and Rs. 107.678 respectively with an increase in DY by 1% assuming that other variables are constant.

The standard error of estimate of SCBNL, LBL, NABIL, MEGA and NBBL are 533.938, 95.233, 84.847, 35.013 and 88.911 respectively. These values indicate the probable error in the predicted value for the respective banks.

4.4.2.5. DPS on EPS

$$\text{DPS} = a + b \times \text{EPS}$$

Table 4.18:

Regression Analysis of DPS on EPS

Bank	Variables	B	Std Error	T value	Sig. T	R ²
SCBNL	Constant (a)	28.085	-	1.539	0.221	0.248
	EPS	-0.540	0.543	-0.996	0.393	
LBL	Constant (a)	4.750	-	1.198	0.317	0.174
	EPS	-0.160	0.201	-0.795	0.485	
NABIL	Constant (a)	-15.730	-	-0.836	0.465	0.489
	EPS	0.611	0.360	1.696	0.189	
MEGA	Constant (a)	26.346	-	1.263	0.296	0.270
	EPS	-1.401	1.331	-1.053	0.370	
NBBL	Constant (a)	10.012	-	2.445	0.092	0.359
	EPS	-0.210	0.163	-1.295	0.286	

The regression analysis between DPS and EPS shows a negative relation between DPS and EPS among all banks except NABIL. The regression relation between DPS and EPS of NABIL indicates that with an increase of Rs. 1 in EPS, the DPS will also increase by Rs. 0.611 assuming that other variables held constant. In the other hand, there will be decrease in DPS of SCBNL, LBL, MEGA and NBBL by Rs. 0.540, Rs. 0.160, Rs. 1.401 and Rs. 0.210 respectively with an decrease in EPS by Rs. 1 remaining other variables will be constant.

The standard error of estimate of SCBNL, LBL, NABIL, MEGA and NBBL are 0.543, 0.201, 0.360, 1.331 and 0.163 respectively. These values indicate the possible error in the predicted value for the respective banks.

4.4.2.6. DPS on NWPS

$$\text{DPS} = a + b \times \text{NWPS}$$

Table 4.19:

Regression Analysis of DPS on NWPS

Bank	Variables	B	Std Error	T value	Sig. T	R ²
SCBNL	Constant (a)	33.611	-	2.152	0.120	0.437
	NWPS	-0.104	0.068	-1.527	0.224	
LBL	Constant (a)	2.054	-	0.264	0.809	0.001
	NWPS	-0.002	0.052	-0.046	0.966	
NABIL	Constant (a)	24.503	-	0.405	0.713	0.007
	NWPS	-0.035	0.238	-0.145	0.894	
MEGA	Constant (a)	101.401	-	1.992	0.140	0.547
	NWPS	-0.768	0.403	-1.904	0.153	
NBBL	Constant (a)	104.718	-	3.567	0.038	0.793
	NWPS	-0.674	0.198	-3.395	0.043	

The table 4.19 show that regression analysis shows that among the banks under study, all banks has negative regression relation between DPS and NWPS. The regression relation between DPS and NWPS of all banks indicates that with an increase of Rs. 1 in NWPS, the DPS will decrease by Rs. 0.104, 0.002, 0.035, 0.768 and 0.674 respectively assuming that other variables are constant.

The standard error of estimate of SCBNL, LBL, NABIL, MEGA and NBBL are 0.068, 0.052, 0.238, 0.403 and 0.198 respectively. These values indicate the probable error in the predicted value for the respective banks.

The coefficient of multiple determinations (R²) is highest for NBBL (0.793), which indicates that 79.3% in DPS is explained by NWPS i.e. 79.3% variation in DPS of the bank is explained due to the change in value of NWPS of the bank. The value of R² of SCBNL, LBL, NABIL and MEGA are 0.437, 0.001, 0.007 and 0.547 respectively, which indicate that 43.7%, 0.1%, 0.7% and 54.7% variation in the DPS of these banks are explained due to the change in NWPS of the respective banks.

4.4.2.7. MPS on EPS and DPR

$$\text{MPS} = a + b_1 \times \text{EPS} + b_2 \times \text{DPR}$$

Table 4.20:

Regression Analysis of MPS on EPS and DPR

Bank	Variables	B	Std Error	T value	Sig. T	R ²
SCBNL	Constant (a)	-3278.19	-	-3.861	0.061	0.95
	EPS	143.875	27.017	5.325	0.034	
	DPR	1.417	1.786	0.794	0.511	
LBL	Constant (a)	-326.508	-	-1.512	0.270	0.93
	EPS	27.490	15.300	1.797	0.214	
	DPR	4.156	2.536	1.639	0.243	
NABIL	Constant (a)	-5084.92	-	-1.469	0.279	0.71
	EPS	75.553	33.945	2.226	0.156	
	DPR	31.595	26.703	1.183	0.358	
MEGA	Constant (a)	-1217.35	-	-1.493	0.274	0.70
	EPS	112.062	75.152	1.491	0.274	
	DPR	-5.909	12.863	-0.459	0.691	
NBBL	Constant (a)	-157.624	-	-1.068	0.397	0.94
	EPS	19.292	10.292	1.874	0.202	
	DPR	1.963	2.768	0.709	0.552	

The table 4.20 show of multiple regression analysis shows that among the banks under study, SCBNL, LBL, NABIL and NBBL have positive relation between MPS on EPS and DPR. MEGA have negative relation between MPS on DPR but there is positive relation between MPS and EPS. The regression relation between MPS on EPS and DPR of SCBNL, NABIL, LBL and NBBL indicates that with an increase of Rs. 1 in EPS, MPS will increase by Rs. 143.875, Rs. 75.553, Rs. 27.490, and Rs. 19.292 respectively, whereas with increase of 1% in DPR, the MPS will increase by Rs. 1.417, 31.595, 4.156 and Rs. 1.963 respectively remaining variables other are

constant. In case of MEGA with an increase of Rs. 1 in EPS, the MPS will incline by Rs. 112.062 and with increase in 1% in DPR, MPS will decline by Rs. 5.909 assuming that the other remaining variables constant.

The average of standard error of SCBNL, LBL, NABIL, MEGA and NBBL are 14.40, 8.92, 30.32, 44.01 and 6.53 respectively. These values indicate the probable error in the predicted value for the respective banks.

The value of coefficient of multiple determination (R^2) of SCBNL, LBL, NABIL, MEGA and NBBL are 0.95, 0.93, 0.71, 0.70 and 0.94 respectively, which indicate that 95%, 93%, 71%, 70% and 94% variation in the MPS of these banks are explained due to the change in EPS and DPR of the respective banks.

4.4.2.8. MPS on P/E Ratio and DPS

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

Table 4.21:

Regression Analysis of MPS on P/E Ratio and DPS

Bank	Variables	b	Std Error	T value	Sig. T	R ²
SCBNL	Constant (a)	-818.922	-	-1.280	0.329	0.97
	PER	52.778	9.121	5.787	0.029	
	DPS	9.836	25.949	0.379	0.741	
LBL	Constant (a)	-413.519	-	-2.771	0.109	0.97
	PER	40.030	6.126	6.534	0.023	
	DPS	24.784	22.688	1.092	0.389	
NABIL	Constant (a)	-797.837	-	-4.522	0.046	0.99
	PER	72.707	5.312	13.688	0.005	
	DPS	20.018	5.927	3.377	0.078	
MEGA	Constant (a)	-58.491	-	-1.326	0.316	0.99
	PER	19.035	1.605	11.862	0.007	
	DPS	0.120	3.129	0.038	0.973	
NBBL	Constant (a)	-500.794	-	-1.392	0.299	0.89
	PER	61.713	19.108	3.230	0.084	
	DPS	-10.230	20.530	-0.498	0.668	

The multiple regression analysis among MPS on PER and DPS shows that all banks except NBBL have negative multiple regression relation, while NBBL have positive relation with PER and negative relation with DPS other remaining variables constant. The regression relation between MPS on PER and DPS of SCBNL, LBL, NABIL and MEGA indicates that with an increase of 1% in PER the MPS will increase by Rs. 52.778, Rs. 40.030, Rs. 72.707 and Rs. 19.035 and with increase of Rs. 1 in DPS, the MPS will increase by Rs.9.836, Rs. 24.784, Rs. 20.018 and Rs. 0.120 respectively remaining other than two variables constant. In case of NBBL, with an increase of 1% in PER, the MPS will increase by Rs. 61.713 but it will decrease by Rs. 10.230 with an increase of Rs. 1 in DPS.

The value of coefficient of multiple determination (R^2) of SCBNL, LBL, NABIL, MEGA and NBBL are 0.97, 0.97, 0.99, 0.99 and 0.89 respectively, which indicate that 97%, 97%, 99%, 99% and 89% variation in the MPS of these banks are explained due to the change in PER and DPS of the respective banks.

4.3 Major Findings

A. Findings of Descriptive Analysis

- From the descriptive analysis, the researcher found there is not any consistency in dividend policy in the sample firms. It has indicated the need of dividend strategy as well as the need of proper analysis of the respective sector of the firms.
- Most of the Nepalese firm from the very past have not profit planning and investment strategy, which has imbalanced the whole position of the firms. It means there is not consistency even in the earnings.
- Besides all the D/P Ratio of the firms in many years are found more than the popular practice (i.e. 40%)
- The lack of financial knowledge and the market inefficiency has affected the market price of the share in all the firms. But it is theoretically argued.
- The average of closing MPS of Standard Chartered Bank Nepal Ltd. (SCBNL) during the period of study is Rs. 1595.40 with a standard deviation of 1318.30 and a coefficient of variation of 82.63%. It can be seen that the average closing MPS of SCBNL has the highest and that of MEGA has the lowest. Similarly, the standard deviation of SCBNL has the highest and MEGA has

the lowest. The coefficient of variation of these banks shows that there is an above-moderate level of fluctuation in the MPS.

- The EPS of Standard Chartered Bank Nepal Ltd. (SCBNL) range between Rs. 45.96 to Rs. 24.81 during the period of study. During this period, the average EPS is Rs. 32.80. The average EPS of Laxmi Bank Ltd, during this period of study is Rs. 19.10 It stayed within the range of Rs. 27.15 to Rs14.39. Nabil Bank Limited has the EPS range between Rs. 59.27 and Rs. 36.16 during the period of study and so on. The table and figure show that NABIL has the highest average and MEGA has the lowest average among other banks. Similarly, the NBBL has the highest standard deviation and MEGA has the lowest and also in coefficient of variation of the bank.
- The average DPS of NABIL has Rs. 15.75 which is highest and LBL has Rs. 1.70 which is lowest and also with the standard deviation of 9.07 of SCBNL which is high and S.D of 2.08 of LBL which is lowest among them. The coefficient of variation is banks are highly fluctuated during the period of study.
- The average DPR of Standard Chartered Bank Nepal Ltd. (SCBNL) has 109.44% which is high and the MEGA has 35.53% which is low among them. By the analysis of DPR of the sample banks, the average Dividend payout ratio of the sample banks comes out to 62.77% with a standard deviation of 44.16 and CV of 63.68% It indicates that, in average, out of the total earnings made, 62.77% is distributed as dividend to the shareholders with a fluctuation of 63.68%.
- The DY of NBBL has 2.37% which is lowest and DY of MEGA has 4.64% which is highest among the banks. Similarly, NABIL has lowest Standard Deviation and LBL has the highest. The C.V. of 53.50% indicates that the fluctuation of in DY of SCBNL has the modest.
- The relationship between MPS and DPS of NABIL shows the coefficient of determination (R^2) is 0.006, which indicates that only 0.06 percent of the variation of MPS is determined by the explanatory variable DPS. The simple correlation coefficient R between MPS and DPS of NABIL is 0.076.
- The relationship between MPS and EPS of NABIL as the results show, the slope of coefficient (b) is 50.54. Only 51.6% of the variation of MPS is

determined by the explanatory variable EPS. The simple correlation coefficient R between MPS and EPS of NABIL is 0.718.

- The relationship between EPS and MPS of LBL as these result shows, the slope of coefficient is (b) 47.40. The coefficient of determination R² is 0.847, which indicates that only 84.7% of the variation of MPS is determined by the explanatory variable EPS. The simple correlation coefficient R between MPS and EPS of LBL is 0.92.
- The relationship between MPS and DPS of SCBNL. As the result show the slope of coefficient (b) is -99.31. The coefficient of determination (R²) is 0.47 which indicates that only 47 percent of the variation of MPS is determined by the explanatory variable DPS. The simple correlation coefficient (R) between MPS and DPS of SCBNL is -0.68.
- The relationship between EPS and DPS of SCBNL as the results show, the slope of coefficient is -0.46. The coefficient of determination R² is 0.25, which indicates that 25% the variation of DPS is determined by the explanatory variable EPS. The simple correlation coefficient (R) between DPS and EPS of SCBNL is -0.50.

4.4 Discussion

According to the purpose of the study, research adopted different types of model such as correlation, regression and multiple regression for the analysis of the study. In Nepal, only a few listed companies have been paying regular dividends to their shareholders. Further companies have not been following stable dividend payout policy. On the other hand, the dividend payout ratio of listed companies in Nepal has not been able to distribute fair dividends. None of these companies have well defined and appropriate policy regarding dividend payment. The insignificant relationship between DPS and other variables indicates that dividend policy of all these companies is not better. This study rests to conclude that the cash dividend can't be said as a sole factor to affect price of share. But there are some other factors like earning power, bonus shares, information value of dividend decision etc. that also cause the share price fluctuation. In an imperfect market mechanism like Nepalese Share Market, the security brokers, other market makers and the rumors they spray in the market have also significant role in share price fluctuation.

Result obtained from the data analysis for the EPS, DPS, MPS, DPR, P/E Ratio, EY, DY and NWPS of the samples banks (SCBNL, LBL, MEGA, NABIL and NBBL) has positive as well as negative results. As comparing with the facts of **Jha (2007)**, the researcher has highlighted “Dividend practice of the bank, insurance and financial companies”. To analyze the relationship of dividend with various important variables. The major findings of the researcher are that Nepalese government NRB, SEBON, NEPSE should be conscious to discourage market imperfection and Companies should have long term policy regarding the adoption of suitable dividend policy. Even if not earning has been increasing, the dividend per share has widely fluctuated. Distribution of bonus share should be pre-evaluated. There needs a proper information discloser to the investor. According to the **Bhattarai (2008)** justified that “The banks and manufacturing companies do not follow any specific dividend policy”. DPR are fluctuating over the periods of those selected companies as comparing my data analysis results has come up with the same fact as the researcher has described. The correlation between MPS and EPS of all banks (SCBNL, LBL, NABIL, MEGA and NBBL) is positive, which is due to the reason that there is increase in EPS with the increased in MPS of the banks and vice versa.

There is not any specific trend of EPS in the companies. There is great difference between market price per share and book value per share. But as comparing the result with **Paudel (2014)** with my data analysis of the listed banks especially for selected banks under the study and to what extent the risk is involved in the investment of common stocks of those. There is no uniformity in the relationship of MPS with various financial indicators of the sampled banks. If considered on the basis of the average data for the past 5 years, MPS of only one bank (NABIL) has higher positive correlation with financial indicators such as EPS, NWPS and DPS and such relationship in significant. But other banks like (SCBNL, LBL, MEGA and NBBL) has negative correlation with financial indicators like DPS but positive correlation with EPS and NWPS. The Nepalese stock markets in not efficient enough to determine MPS in accordance with respective financial performance. The market price of share in Nepal is not indicative of a company’s financial performance in stock market. Value of share price is to be determined by the future financial indicators, unfortunately, the stock market does not run based on proper information about the company.

Similarly, as comparing my result with **Adhikari (2007)** the researcher has conducted that there are differences in financial position of high dividend paying and low dividend paying companies. The result of my analysis SCBNL has higher MPS and DPR with comparing to other selected banks. But in case of DPS, EPS and NWPS NABIL has the higher average value comparing with the other banks in the period of the study. It has more variable as compared to stock paying lower dividends. Other thing remaining the same, financial position of high dividend paying banks like NABIL and SCBNL are comparatively better than that of low dividend paying banks. Another interesting conclusion is that market price of stock is affected by dividend for finance and non-finance sectors differently. There is positive relationship between dividend and stock price. There is negative relationship between dividend payout and earnings before tax to net worth. Stocks with larger ratio of DPS to book value per share have higher profit ability. With respect to major motives for paying cash dividend, the majority of the respondent feels that it is to convey information to shareholders that the company is doing good. Nepalese shareholders are not really indifferent towards payout or nonpayment of dividend.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

Dividend policy decision is one of the three major decisions of financial management. The dividend refers to that portion of the firm's net earnings, which is paid out to the shareholders as a return for their investments. The dividend decision affects the operation, and prosperity of the organization. To attract the new investors and to maintain the existing ones, dividend can be used as an effective tool. There are others who argue that dividend policy does affect value due to uncertainty factor. Many factors affect the dividend payment depending upon the investors' need and preference on one hand and the financing need of the financial institution to the potential investment on the other hand. The dividend decision, in one hand affects the company's structure. In other hand it has an information value to the investors. The dividend policy decision effects on the operation and prosperity of the organization because it has the power to influence other two decisions of the organization i.e. capital structure decision and investment decision. An investor expects two types of return namely capital gain and dividend by investing in equity capital or ordinary share. So, payment of dividend to shareholders is an effective way to attract new investors and maintain present investors. It is important to have clearly defined and effectively managed dividend policy so as to fulfill the shareholders' expectations and corporate growth.

This study mainly aims the prevailing practices of listed companies regarding dividend payment. The study is mainly focused to access the dividend policy and its impact on market price in banks. Instability of dividend and haphazard payout ratio is the most common practice of Nepalese companies. Companies do not adequately maintain cash balance for dividend payment. So, it covers some specific objectives to find out the relationship between other financial indicators and also to find out the appropriate dividend policies for different banks.

In Nepal, only a few listed companies are paying regular dividends to their shareholders. These companies are also not following the stable dividend payout policy. However, paying dividend can be taken as an important tool to attract new investors. Besides this, the payment of dividend shows the good financial health of

the organization in the market. The division of earnings between dividend payout and retention ratio the market price of the share may also be affected, which is also crucial for the organization. So, the funds that could not be used due to the lack of investment opportunities would be better as dividend, since shareholders have investment opportunities elsewhere.

Dividend paying banks have been analyzed to show the implication of dividend policy they have adopted in their market price per share. Even if market price is governed by various factors, this study is made to analyze one of the important factors i.e. Dividend. The study covers five commercial banks (NABIL, SCBNL, NBBL, LBL and MEGA) and only for the last five fiscal years from 2016/17 to 2020/21. The available secondary data have been analyzed using various financial and statistical tools. So, the reliability of the conclusions of this study is determined on the accuracy of secondary data. The shareholders in Nepal don't seem to be investing their capital on the basis of financial performances of the financial institution as such. The main reason behind this statement is that market price of the shares doesn't seem to be more or less dependent upon earnings per share and dividend per share. The major findings of this study can be summarized as follows.

5.2 Conclusions

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

- The average earning per share (EPS) of the banks under study shows a positive result. But the coefficient of variation indicates that the EPS of the banks are not stable. The CV ranges between 44.52% and 11.51%. Among the banks under study, NABIL has the highest average EPS and MEGA has the least with highest degree of fluctuation.
- The average DPS shows that there is no regularity in payment of dividend. The DPS is quite fluctuating. The CV of DPS ranges between 122.80% and 53.06%. The NABIL has the highest average DPS and the most regular to pay dividend to its shareholders. Among the banks under study, LBL has the lowest average DPS and also the highest fluctuation in DPS. Since the paid-up capital per share is Rs.100, the analysis of dividend percent also depicts the same result as that of DPS.

- The analysis of DPR also shows that the DPR of the banks are not stable. The fluctuation ranges between 115.67% and 15.62%. Among the banks under study, SCBNL has the highest average DPR and also the highest fluctuation in DPS but NABIL the lowest fluctuation in DPS. The result also shows that, MEGA has the lowest average DPR but modest fluctuation as indicated by CV.
- The average MPS of the banks indicate quite high level of fluctuation. SCBNL has the highest average MPS while MEGA has the lowest. Among the banks under study, the MPS of SCBNL is highly fluctuating and that of NABIL is the most stable.
- The average price-earnings ratio of SCBNL among the banks under study is the highest and also highly unstable. The ratio for remaining banks is satisfactory and quite stable.
- The average earning yield of banks under study indicates that the earning yield is quite low ranging between 6.91% and 2.95% and the stability of the earning yield is also low i.e. fluctuation of earning yield range from 48.76% to 21.98%.
- The average dividend yields of the banks are also very low ranging between 4.64% and 2.37%. Among the banks MEGA has the highest dividend yield and NBBL has the lowest. Besides the dividend yield being low, there is high fluctuation in the dividend ranging from 60.10% to 29.92%.
- The analysis of net worth per share shows that NABIL has the highest average NWPS and MEGA is the lowest. The coefficient of variation indicates that there is a moderate level of fluctuation in NWPS of the banks under study.

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

- The MPS of NABIL has positive correlation with DPS (0.076), EPS (0.718), P/E Ratio (0.964) and NWPS (0.017). On the other hand, it is negatively correlated with EY (-0.911), DY (-0.973) and DPR (-0.098). The EPS of NABIL has positive correlation with DPS (0.7) but negative relation with DPR (-0.623). The DPS is negatively correlated with DPR (-0.963) and negative

with NWPS (-0.083). The EY of NABIL is positively correlated with its DY (i.e. 0.837).

- The MPS of SCBNL has positive correlation with its EPS (0.967), DPR (0.497), P/E Ratio (0.984), and NWPS (0.831). But it is negatively correlated with its DPS (-0.683), EY (-0.939) and DY (-0.212). On the other hand, EPS of SCBNL is negatively correlated with its DPS (i.e.-0.498) but positive correlation with DPR (i.e.0.395). The DPS has negative correlation with DPR (i.e.-0.409) and negative correlation with NWPS (i.e.-0.662). Also, the EY of SCBNL positively correlated with its DY (i.e.0.015).
- For MEGA, the MPS has negative correlation with its DPS (-0.714), DPR, DY (-0.871) and EY (-0.995). But it's MPS positively correlated with P/E Ratio (0.997), EPS (0.822), DPR (0.617) and NWPS (0.452). There exists negative correlation between EPS-DPS (i.e. -0.519) and positive between EPS-DPR (i.e. 0.86). The DPS of MEGA is negatively correlated with DPR (-0.564) and between DPS and NWPS (-0.74). There is also positive correlation exists between EY and DY (i.e. 0.892).
- In case of LBL, the MPS is negatively correlated with DPS (-0.578), DY (-0.244), and EY (-0.905) while it has positive correlation with its EPS (0.92), DPR (0.911), P/E Ratio (0.976) and NWPS (0.797). The EPS of LBL is positively correlated with its DPR (0.794) and negatively correlated with its DPS (-0.417). The DPS has negative correlation with DPR (-0.265) and NWPS (-0.027). There exists positive correlation between EY and DY of LBL (i.e. 0.565).
- Similarly, in the case of NBBL, the MPS is negatively correlated with DPS (-0.589) and EY (-0.872), while it has positive correlation with its EPS (0.963), DPR (0.917), P/E Ratio (0.939) and NWPS (0.362). The EPS of NBBL is positively correlated with its DPR (0.897) and negatively correlated with its DPS (-0.599). The DPS has negative correlation with DPR (-0.853) and NWPS (-0.891). There exists negative correlation between EY and DY of NBBL (i.e. -0.392).

- The regression analysis of MPS on DPS shows that the regression coefficient (b) is positive for NABIL and negative for SCBNL, LBL, MEGA and NBBL and same as on DPS on EPS also.
- The regression analysis of MPS on EPS shows that the regression coefficient (b) is positive for all banks (NABIL, SCBNL, LBL, MEGA and NBBL).
- The regression coefficient (b) of the regression analysis between MPS on DPR is positive for SCBNL, LBL, MEGA and NBBL. This regression coefficient (b) for relation between MPS on DPR is negative for NABIL.
- The regression analysis between MPS on DY shows that the regression coefficient (b) is positive for NBBL only. All the other banks (LBL, NABIL, SCBNL and MEGA) have negative regression coefficient.
- The regression coefficient (b) for the analysis between DPS on NWPS is negative for all banks (SCBNL, LBL, NABIL, MEGA and NBBL).
- The multiple regression analysis of MPS on EPS and DPR shows that the regression coefficient (b) is positive for both EPS and DPR in case of SCBNL, LBL, NABIL and NBBL. But for MEGA, the regression coefficient (b) is positive for EPS and negative for DPR.
- The multiple regression analysis of MPS on P/E Ratio and DPS shows that the regression coefficient (b) is positive for both P/E Ratio and DPS in case of SCBNL, LBL, NABIL and MEGA. But for NBBL, the regression coefficient (b) is positive for P/E Ratio and negative for DPS.

After analyzing the financial variables using mean, standard deviation and coefficient of variation, making analysis of relation between the variables using correlation and regression, the following conclusions have been drawn.

- The market price per share is affected by the dividend related financial variables i.e. DPS, and DPR either positively or negatively. The nature of effect is different for different banks. In case of some banks, there exists positive relation between dividend and market price per share while for other there exist negative relation. Besides this the market price per share largely depends upon the dividend, which has been shown by the coefficient of multiple determinations.

- Besides dividend, other factors also affect the market price per share e.g. earnings per share, price earnings ratio, net worth per share etc. Their effect is also different for different banks.
- The dividend per share is affected by earning per share, retention ratio, net profit and net worth per share differently in different banks. The extent of effect also differs in the banks.

5.3 Recommendations

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

- Lack of proper legal provisions regarding the dividend payment exists in the country. The government as well as the central bank of Nepal, Nepal Rastra Bank should pay their attention in this matter for prescribing certain provisions and rules regarding the percentage of earning which can be distributed be as payment of dividend to its shareholders. This recommendation is suggested on the basis moderns banking environment and changing expectation of the stake holders/ investors of the banks.
- The commercial banks also should have their long-term policy / strategy regarding the adoption of suitable dividend policy i.e. either it is adopting a stable dividend policy, constant payout ratio or low regular plus extra dividend policy. This recommendation is based on the requirement of long-term growth of banking industry in Nepal.
- There is inconsistency in dividend payment. The dividend is neither static nor growing. This may create misconception about the organization regarding its financial position. Due to high degree of risk and uncertainty, the market price per share may be adversely affected. So, the commercial banks should follow either static or growing dividend payment policy based on its earning capacity.
- Even if the net earning has been increasing, the dividend per share has widely fluctuated due to the issue of bonus shares. The impact of bonus share on DPS

should be pre-evaluated. The shareholders should also be informed about the reasons of fluctuation in dividend.

- While making dividend decision, a minor mistake may lead the bank to serious crisis. Due to this reason it is advised to adopt optimum dividend decision based on the following criteria:
 - Optimum retention for excellent expansion and modernization of bank keeping in view with expected risk scenario.
 - Optimum dividend as most of the shareholders wants to have maximum return as well as to increase their wealth through increase in market price per share i.e. net present value of shareholders.
 - Stable or consistency in the dividend payment.

Finally, after making this study, it is realized that there is a necessity of legal provisions and rules for prescribing certain policy regarding the dividend payment in the banking sector. For this purpose, the concerned authority i.e. HMG (N), Nepal Rastra Bank, Security Board and Nepal Stock Exchange should be conscious about the formulation and implication of rule regarding dividend payment. This will help to regularize the dividend policy of the financial sector in Nepal.

REFERENCES

- Al-Shubiri, F. N. (2010). Analysis the determinants of market stock price movements: An empirical study of Jordanian commercial banks. *International Journal of Business and Management*, 5(10), 137.
- Baker, H.K., Farrelly, G.E. and Edelman, R.B. (1985). A Survey of Management Views on Dividend Policy, Financial Management.
- Barley, R. A. & Myers, S.C. (1988). *Principle of Corporate Finance*. New Delhi: McGraw Hill International Publication.
- Basnet, P. (2004). Dividend Adhikari, N.R. (2000). Corporate Dividend Practices in Nepal, Unpublished Master's Degree Dissertation, T.U. Central Department of Management, Kirtipur.
- Bhattarai, B.H. (1996). *Dividend Decisions and its impact on stock valuation*. An unpublished MBS Thesis. T.U.
- Bhattarai, D. K. (2013). *A Study on Dividend Policy of the Commercial Banks in Nepal*. Kathmandu. An Unpublished Master Degree thesis. Faculty of Management. Shankar Dev Campus. T.U.
- Bhattarai, B. P. (2020). *Determinants of Dividend Payout Decisions of Commercial Banks in Nepal*. *Journal of Global Economics, Management and Business Research*, 12-20.
- Budhathoki, K. (2012). *The Study of Dividend Policy of the Commercial Banks in Nepal*. Kathmandu. An Unpublished Master Degree thesis. Faculty of Management. Shankar Dev Campus. T.U.
- Dean, W.H. (1973). *Finance*. New York: The Dryden press, library of congress.
- Gautam, R.R. (1997). *Dividend policy in commercial Banks: A comparative study of NABIL, NGBL and NIBL*, An unpublished MBS Thesis, T.U.

Gautam, R.R. (1998). *Dividend Policy in commercial Banks: A Comparative Study of NGBL, & NABIL*, Unpublished Master's Degree Dissertation, T.U. Central Department of Management, Kirtipur.

Gautam, S. (2009). "Dividend Policy of Nepalese Commercial Banks", Unpublished Master's Degree Thesis, Faculty of management, Tribhuvan University.

Gordon, J. R., & Gordon, M. J. (1997). The finite horizon expected return model. *Financial Analysts Journal*, 53(3), 52-61.

Irwin friend and Marshall pocket 1964, "Dividend policy and stock prices", The American Economic Review Vol, LIV.

Islam, M. S., & Dooty, E. N. (2015). Determinants of stock price movements: Evidence from Chittagong stock exchange, Bangladesh. *Journal of Economics and Business Research*, 21(2), 117-133.

Jha, P.K. (2007). *"Dividend Policy of Listed Companies in Nepal: Comparative Study on Banking, Finance and Insurance Companies"*, Unpublished Master's Degree Thesis, Faculty of Management, Tribhuvan University.

Khan, Y.M. & K.P. (1990). *Financial Management*, New Delhi: Tata MC Graw hill publishing company Limited.

Khottari, C.R. (1978). *Quantitative Techniques*. New Delhi: Vikash publishing House Pvt. Ltd.

Miller, M.H. & Modigliani F. (1961.October) Dividend policy, growth and the valuation of the share. *Journal of Business*.

Neupane, J. P. (2017). *Dividend Policy and its Impact on Market Price of Stock* (Doctoral dissertation, Lumbini Banijya Campus).

NBA. 2020. Member List. Nepal Banker's Association. Website:
<http://nepalbankers.com.np/>

Nepal Rastra Bank Economic Reports

Nepal Stock Exchange Trading Reports

Oyama, T. (1997). Determinants of stock prices: The case of Zimbabwe

Pandey, I.M. (1995). *Financial management*, New Delhi: Vikash Publishing house Pvt. Ltd.

Paudel, D. (2014) has conducted research on *Determinants of share price in Nepalese Financial Market*. An Unpublished Master Degree thesis. Faculty of Management. Shankar Dev Campus. T.U.

Pradhan, R.S. (1993). *Stock market Behavior in a small capital market: A case of Nepal*. The Nepalese Management Review. Vol. IX No. 1.

Pradhan, S. (1992). *Dividend Payment*, Kathmandu: Educational Enterprises Pvt. Ltd.

Security Board Reports

Sharma, P.K. & A.K. Chaudhary. (2001). *Statistical Methods*. Kathmandu: Khanal Books prakashan.

Shrestha, M.K. (1980). *Financial management (Theory and Practice)*. T.U. Kathmandu: Kathmandu curriculum development center.

Shrestha, M.K. (1981). Public Enterprises: Have they Dividend paying Ability? Prakashan, *The Nepalese journal of public Administration*.

Timilsina, B.S. (2001). *Dividend policy: A comparative study between NGBL and NIBL*, Kathmandu: An un published Master degree thesis, T.U. Kathmandu.

Van Horne, J. C. (2000). *Financial Management and Policy*. New Delhi: Prentice Hall.

Walter, J.E. (1996). *Dividend policies and common stock prices*. Journal of Finance, Vol.11.

Wolf Howard, K & Pant. P.R (2009) *Social Science Research and Thesis writing*. Kathmandu: Budha Academic Enterprises.

Websites:

www.nepalstock.com

www.google.com

www.searchfinance.com

APPENDIX-I

Analysis of EPS

Year	SCBNL	LBL	NABIL	MEGA	NBBL
2016	45.96	27.15	59.27	17.00	39.43
2017	35.49	21.77	59.86	17.31	28.05
2-18	27.33	14.37	51.84	12.81	14.95
2019	30.39	17.82	50.57	15.69	19.63
2020	24.81	14.39	36.16	15.15	15.01
\bar{X}	32.80	19.10	51.54	15.59	23.41

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

$$C.V. = \sqrt{\frac{\sum X^2}{n} - \left(\frac{\sum X}{n}\right)^2} = 25.51, 28.45, 18.57, 45.96, 44.52$$

$$S.D = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = 8.37, 5.43, 9.57, 1.79, 10.42$$

Analysis of DPS

Year	SCBNL	LBL	NABIL	MEGA	NBBL
2016	1.75	0	15.00	0.86	1.68
2017	5.26	0.53	18.00	0	3.79
2-18	17.50	0.45	22.00	6.85	10.53
2019	22.50	5.00	22.00	11.75	7.00
2020	4.84	2.50	1.76	3.05	2.42
\bar{X}	10.37	1.70	15.75	4.50	5.08

$$\bar{X} = \frac{\sum X}{n} \quad cv = \frac{s.d.}{\bar{X}} \times 100$$

$$C.V. = \sqrt{\frac{\sum X^2}{n} - \left(\frac{\sum X}{n}\right)^2} = 87.45, 122.80, 53.06, 107.50, 72.06$$

$$S.D = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = 9.07, 2.08, 8.36, 4.84, 3.66$$

Analysis of MPS

	NABIL	SCBNL	LBL	MEGA	NBBL
Mean	15.75	10.37	1.70	4.50	5.08
S. D	9.07	2.08	8.36	4.84	3.66
C.V.	87.45	122.80	53.06	107.50	72.06

APPENDIX – II

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

	x	y	x ²	y ²	xy
2016	1.75	3600	3.0625	12960000	3528
2017	5.26	2295	27.6676	5267025	10609.42
2018	17.5	755	306.25	570025	35315
2019	22.5	682	506.25	465124	45427.5
2020	4.84	645	23.4256	416025	9776.8
total	51.85	7977	866.6557	19678199	104656.72
correlation	-0.683				

$$A = 5 \quad \sum X = 51.85, \quad \sum Y = 7977, \quad \sum XY = 104656.72, \quad \sum X^2 = 866.65, \quad \sum Y^2 = 19678199$$

Note:

Value of Y represents market price per share: MPS

Value of X represents dividend price per share: DPS

Mean,

$$\bar{X} = 10.37$$

$$\bar{Y} = 1595.4$$

$$\begin{aligned} \text{i) Coefficient of Correlation, } r &= \frac{n \cdot \sum XY - \sum X \cdot \sum Y}{\sqrt{n \cdot \sum X^2 - (\sum X)^2} \times \sqrt{n \cdot \sum Y^2 - (\sum Y)^2}} \\ &= -0.683 \end{aligned}$$

$$\text{Coefficients of Determination } (r^2) = 0.467$$

$$\begin{aligned} \text{Standard error of Correlation Coefficients, S.E. (r)} &= \frac{1-r^2}{\sqrt{n}} \\ &= 0.24 \end{aligned}$$

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

Where,

A = Regression constant

B = regression coefficient (Slope of the regression line)

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

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

And

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

Solving these two normal equations, we get

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

$$= 2625.256$$

$$A = Y - Bx = -99.311$$

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

$$= 61.28872$$

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

$$= -1.620$$

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

	x	y	x ²	y ²	xy
2016	1.75	45.96	3.0625	2112.3216	3528
2017	5.26	35.49	27.6676	1259.5401	10609.42
2018	17.5	27.33	306.25	746.9289	35315
2019	22.5	30.39	506.25	923.5521	45427.5
2020	4.84	24.81	23.4256	615.5361	9776.8
total	51.85	163.98	866.6557	5657.8788	104656.72
correlation	-0.498311578				

$$A = 5 \sum X = 51.85, \sum Y = 163, \sum XY = 104656.72, \sum X^2 = 866.65, \sum Y^2 = 5657.8788$$

Note:

Value of Y represents earnings price per share: EPS

Value of X represents dividend price per share: DPS

Mean,

$$\bar{X} = 10.37$$

$$\bar{Y} = 32.80$$

$$\begin{aligned} \text{i) Coefficient of Correlation, } r &= \frac{n \cdot \sum XY - \sum X \cdot \sum Y}{\sqrt{n \cdot \sum X^2 - (\sum X)^2} \times \sqrt{n \cdot \sum Y^2 - (\sum Y)^2}} \\ &= -0.498 \end{aligned}$$

$$\text{Coefficient of determination } (r^2) = 0.248$$

$$\begin{aligned} \text{Standard error of correlation Coefficient, S.E. } (r) &= \frac{1 - r^2}{\sqrt{n}} \\ &= 0.336 \end{aligned}$$

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

Where,

A = Regression constant

B = Regression coefficient (Slope of the regression line)

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

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

And

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

Solving these two normal equations, we get,

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

$$= -0.459$$

$$A = \overline{Y - b\bar{X}} = 37.563$$

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

$$= 8.3758$$

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

$$= 0.461$$

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

$$= -0.995$$

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

	x	y	x ²	y ²	xy
2016	45.96	3600	2112.3216	12960000	165456
2017	35.49	2295	1259.5401	5267025	81449.55
2018	27.33	755	746.9289	570025	20634.15
2019	30.39	682	923.5521	465124	20725.98
2020	24.81	645	615.5361	416025	16002.45
total	163.98	7977	5657.8788	19678199	304268.13
correlation	0.966823297				

$$N = 5, \sum X = 163.98, \sum Y = 7977, \sum XY = 304268.13, \sum X^2 = 5657.8788, \sum Y^2 = 19678199$$

Note:

Value of X represents earnings price per share: EPS

Value of Y represents market price per share: MPS

Mean,

$$\bar{X} = 32.796$$

$$\bar{Y} = 1595.4$$

$$i) \text{ Coefficient of Correlation, } r = \frac{n \cdot \sum XY - \sum X \cdot \sum Y}{\sqrt{n \cdot \sum X^2 - (\sum X)^2} \times \sqrt{n \cdot \sum Y^2 - (\sum Y)^2}} = 0.9668$$

$$\text{Coefficient of determination } (r^2) = 0.9347$$

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

$$= 0.030$$

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

Where,

A = Regression constant

B = Regression coefficient (Slope of the Regression line)

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

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

And

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

Solving these two normal equations, we get,

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

$$= 152.3423$$

$$A = -3400.82$$

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

$$= 388.8517$$

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

$$= 23.2387$$

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

$$= 6.555$$

APPENDIX – III

For Multiple Regressions 1:

SCBNL

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.975	0.950	0.901	415.327

a. Predictors: (Constant) EPS, DPR

ANOVA

Model		<i>df</i>	SS	MS	F	Significance F
1	Regression	2	6606699.628	3303349.814	19.150	0.050
	Residual	2	344993.572	172496.786		
	Total	4	6951693.200			

a. Predictors: (Constant), EPS, DPR

b. Dependent Variable: MPS

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3278.193	849.129		-3.861	.061
	DPR	1.417	1.786	.136	.794	.511
	EPS	143.875	27.017	.913	5.325	.034

a. Dependent Variable: MPS

For Multiple Regressions 2:

SCBNL

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.985 ^a	.970	.940	323.22038

a. Predictors: (Constant), PER, DPS

ANOVA

Model		<i>df</i>	SS	MS	F	Significance F
1	Regression	2	6742750.367	3371375.184	32.271	.030
	Residual	2	208942.833	104471.416		
	Total	4	6951693.200			

a. Predictors: (Constant), PER, DPS

b. Dependent Variable: MPS

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-818.922	639.770		-1.280	.329
	DPR	9.836	25.949	.068	.379	.741
	EPS	52.778	9.121	1.033	5.787	.029

a. Dependent Variable: MPS

APPENDIX – IV

1. Hypothesis test of EPS

NABIL

LBL

$$\bar{X}_1 = 51.54$$

$$\bar{X}_2 = 19.10$$

$$S_1 = 9.57$$

$$S_2 = 5.43$$

$$N_1 = 5$$

$$N_2 = 5$$

$$S^2 = \frac{N_1 S_1^2 + N_2 S_2^2}{\sqrt{S^2 \left(\frac{1}{s_1} + \frac{1}{s_2} \right)}} = \frac{5*(9.57)^2 + 5*(5.43)^2}{5+5-2} = 75.669$$

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} = \frac{51.54 - 19.10}{5.502} = 5.896$$

Calculated t Value = 5.896

$$d.f. = 5 + 5 - 2 = 8$$

Tabulated Value = 2.306

2. Hypothesis test of EPS

NABIL

SCBNL

$$\bar{X}_1 = 51.54$$

$$\bar{X}_2 = 32.80$$

$$S_1 = 9.57$$

$$S_2 = 8.37$$

$$N_1 = 5$$

$$N_2 = 5$$

$$S^2 = \frac{N_1 s_1^2 + N_2 s_2^2}{\frac{1}{s_1} + \frac{1}{s_2}} = 101.0221$$

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{(s^2(\frac{1}{n_1} + \frac{1}{n_2}))}} = 2.948$$

Calculated t Value = 2.948

d.f. = 5 + 5 - 2 = 8

Tabulated Value = 2.306

3. Hypothesis test of DPS

NABIL

LBL

$$\bar{X}_1 = 15.75$$

$$\bar{X}_2 = 1.70$$

$$S_1 = 8.36$$

$$S_2 = 2.08$$

$$N_1 = 5$$

$$N_2 = 5$$

Calculated t Value = 3.264

d.f. = 5 + 5 - 2 = 8

Tabulated Value = 2.306

4. Hypothesis test of DPS

NABIL

SCBNL

$$\bar{X}_1 = 15.75$$

$$\bar{X}_2 = 10.37$$

$$S_1 = 8.36$$

$$S_2 = 9.07$$

$$N_1 = 5$$

$$N_2 = 5$$

Calculated t Value = 0.872

$$\text{d.f.} = 5 + 5 - 2 = 8$$

Tabulated Value = 2.306

5. Hypothesis test of MPS

NABIL

LBL

$$\bar{X}_1 = 1270.60$$

$$\bar{X}_2 = 391.80$$

$$S_1 = 673.65$$

$$S_2 = 279.85$$

$$N_1 = 5$$

$$N_2 = 5$$

Calculated t Value = 2.409

$$\text{d.f.} = 5 + 5 - 2 = 8$$

Tabulated Value = 2.306

6. Hypothesis test of MPS

NABIL

SCBNL

$$\bar{X}_1 = 1270.60$$

$$\bar{X}_2 = 1595.40$$

$$S_1 = 673.65$$

$$S_2 = 1318.30$$

$$N_1 = 5$$

$$N_2 = 5$$

Calculated t Value = -0.439

$$\text{d.f.} = 5 + 5 - 2 = 8$$

Tabulated Value = 2.306

