CHAPTER - I
INTRODUCTION

1.1 Background of the Study

Capital can be defined as the fund raised to finance different assets and projects of short-term as well as long-term nature. Economists define capital as wealth; businessmen speak of it as total assets whereas the accountants describe it as net assets or net worth of the stockholders' equity. Capital is a primary need for any business organizations to start their operation and function successfully in competitive environment. Capital is the lifeblood of any organization. It is to raise the capital that the companies and Government Issue short-term securities such as treasury bills, treasury notes and long-term securities such as bond, preferred stock and common stock.

Capital market is the market for securities where companies and government can raise long-term funds by issuing bond and equity securities. It is the type of security market where only long-term securities are traded. The long-term securities are debenture, preferred stock or common stock. Long-term securities refer to the securities having the life-span of greater than one year. Capital markets which deal with securities such as stocks and bonds are associated with financial resource mobilization on a long term basis. Capital market implies a structured market for trading of stocks and bond. For investors, they provide an effective vehicle for making investment choices which suit their own preferences of risk and returns based on available information. By raising capital directly from the public, they lower the cost of capital. Capital markets also allow for wider ownership among the public, thereby distributing risks and wealth amongst smaller investors.

The capital markets include primary market and secondary market. The primary market is where new stock and bonds issues are sold (underwritten) to investors. The secondary markets are where existing securities are sold and bought from one investor or speculator to another. While stock exchanges are the easily visible examples of capital market,

support organizations such as brokerage firms and Over-the-Counter (OTC) markets are also included within the working definition of capital market.

Capital markets do not have a long history in Nepal. The first ever floatation of common stock was made by Biratnagar Jute Mills Limited and Nepal Bank Limited in 1937. The introduction of the Company Act in 1964, the first issuance of Government Bond in the same year and the establishment of Securities Exchange Centre Limited in 1976 were some major developments concerned with the capital markets. Nepal Stock Exchange (NEPSE), with the total market capitalization of Rs.366.25 billion and 142 listed companies at the end of FY 2007/08, is comparatively a tiny stock market which started its trading on 13th January, 1994. Similar to other developing countries, for various economic and policy reasons, financial markets are underdeveloped in Nepal. The economy has high inflation, leading to a savings disincentive and capital flight. Private wealth and investments are concentrated among several large companies and individuals. The choice of market instruments is also very limited. As a result, they are constrained by limited investment opportunities and low income and savings rates. Thanks to expansion in both primary and secondary markets and the ADB assisted project of corporate and financial governance (CFG) which the government initiated in 2003 with a view of strengthening and reforming capital market, however, the capital market in Nepal has witnessed significant changes over the last couple of years.

For a firm, capital can come from debt or equity. Debt has two important advantages. First, interest paid is tax deductible, which lowers debt's effective cost. Second, debtholders get a fixed return, so stockholders do not have to share their profits if the business is extremely successful. However, debt also has disadvantages. First, the higher the debt ratio, the riskier the company, hence higher the cost of debt and equity. Second, if a company falls on hard times and operating income is not sufficient to cover interest charges, its stockholders will have to make up the shortfall, and if they can not, bankruptcy will result. Good times may be just around the corner, but too much debt can keep the company from getting there and thus can wipe out the stockholders. Companies with volatile earnings and operating cash flows therefore limit the use of debt (Brigham & Houston, 2001:601).

Capital structure refers to the mix of long-term sources of fund such as debenture, long-term debt, preference share capital and equity share capital including reserves and surpluses. Capital structure is the combination or composition of the long-term debt, preferred stock and common stock. The capital structure which mixes debt and equity securities in such a way that maximizes the value of shares and minimizes the overall cost of capital is called the optimal capital structure. Debt is associated with higher risk than the equity as it increases shareholder's return when the firm has high operating income, but makes them worse than they otherwise would be when the firm has low operating income. Optimal capital structure strikes a balance between risk and return. In an attempt to have an optimal capital structure, a firm changes its capital structure by changing the ratio of debt and equity. Such changes in the firm's long term debt and equity can be interpreted as a signal by outsiders in the marketplace. A firm will issue stock if it believes the existing stock is overvalued and debt if it believes the stock is undervalued.

Financial signaling due to changes in capital structure occurs when capital structure changes convey information to security holders. Such signaling effect assumes there is information asymmetry between management and stockholders. Managers or insiders of a firm often have better or more accurate information than the outsiders or investors and this situation is what is called asymmetric information. Managers may use capital structure changes to convey information about the profitability and risk of the firm. Since a manager's pay and benefits may depend on the firm's market value, it gives the manager an incentive to let investors know when the firm is undervalued. In such a situation, the manager can alter the firm's capital structure by issuing more debt. Since increased leverage is associated with higher probability of bankruptcy upon which the manager would be penalized, the investors conclude that the firm's stock is undervalued and things really are better than the stock price reflects. Hence, debt issues are regarded as "good news" and carry a positive signal whereas stock issues are perceived as "bad news" and carry a negative signal.

1.2 Statement of Problem

The concept of financial signaling states that debt issues are considered as "good news" and send a positive signal to the capital market. Since increased leverage is associated with higher probability of bankruptcy upon which the manager would be penalized, the investors conclude that the firm's stock is undervalued and things really are better than the stock price reflects. In addition, debt issues are associated with higher profitability and an increase in earning per share in future. A company having a highly profitable project at hand would like to finance it through debt which demands a fixed payment, without requiring the company to distribute the entire profit among the debtholders. Profit earned after meeting the fixed charges related to debt goes to the company's already existing shareholders including the managers. Firms with very favorable prospects try to avoid selling stock and, rather, to raise any required new capital by other means, including using debt beyond the normal target capital structure. Such positive signals associated with debt issues are supposed to cause an increase in MPS of the debt-issuing entity.

The theory of financial signaling states that equity issues are perceived as "bad news" and carry negative signals. A firm with unfavorable prospects would want to sell stock which would mean bringing in new investors to share the losses. Firms having projects whose return is uncertain would like to finance the project through new equity issue so that the losses, if occurred, could be shared among the shareholders who, unlike in the case of debt-financing, do not demand any fixed return.

Out of the 12 sample cases of debenture issues, 10 companies' market price of share increased after their respective debenture issues while the MPS of HBL (2nd issue) and NIC Bank decreased after debenture issues by less than 10%. The MPS after debenture issues increased in the cases of debenture issues of HBL (1st issue), NIBL (1st issue), EBL, BOK, NIBL (2nd issue), Nepal SBI, NIBL (3rd issue), KBL, NIBL (4th issue), and Nabil. The increase in MPS of the most of cases suggests, in line with the theoretical concept of financial signaling, that debenture issues send positive signals to the capital market. As far as the link between debenture issue and profitability of the issuing

company is concerned, the 3-year average EPS of 6 out of the 7 sample companies increased substantially after their respective debenture issues compared to the 3-year average EPS just prior to their debenture issues.

Although Chilime Hydropower Company had initiated process to issue ordinary shares for the second time, the same was stopped after locals protested over the equity issue demanding more shares for themselves. Till date, none of Nepalese corporate houses has issued ordinary equity for the second or more time. After the initial public offering (IPO) in which general public have the chance to subscribe the offered equity, the companies issue right share or award bonus share which go to their existing shareholders, to add to their equity financing. This study can not analyse the financial signals emitted by the issuance of common equity by a company on the basis of the share price movement of the company's stock in the absence of further public issue of equity in Nepalese capital market. In the absence of further public issue in the Nepalese capital market so far, this study assumes right issues as common equity issues. Hence, the practice of right issues in Nepal and their signals to the capital market are analysed in this study.

In Securities Registration and Issue Legislation-2008, SEBON has made arrangement to allow the listed companies to make further public issue of ordinary shares after IPO. Section 2(11) of the Legislation contains information on Further Public Issue, which requires that a company, to be eligible to make further public issue, must operate in net profit at least during the last two years of previous five-year period; decision on further public issue should be passed by the company's AGM; provide justification of price determination if the subscription price is set higher than the par value.

Five out of the ten sample companies' share prices increased after rights issue. Among the sample companies, the MPS of MBL, AFCL, KMBFL, SBL, and GDBL increased after one month of rights issue. Likewise, the MPS of KBL, LUBL, LBL, NMB, and NIBL decreased after one month of rights issue. This varying and uncertain change in MPS after rights issues doesn't particularly indicate the nature of signals (positive or negative) which rights issues send to the capital market. With regards to the profitability

of rights issuing companies, 3 out of the 5 sample companies EPS declined considerably after their respective rights issues.

This study deals with the following questions:

a. How has debt-financing practice evolved in the Nepalese capital market?
b. Does debt financing (debenture issue), as suggested by the theory of financial signaling on capital structure issues, send positive signals to the capital market in the Nepalese context?
c. How has rights issue practice grown to be so widely exercised by the Nepalese companies?
d. What kinds of signals equity financing (rights issue) sends to the capital market and its impact on the MPS?
e. How debt-financing (debenture issues) and equity financing (rights issues) are linked with firm's profitability scenario?

1.3 Objectives of Study

This study attempts to identify the financial signals emitted to the capital market by debt-financing (debenture issues) and equity-financing (rights issue) in the Nepalese context. The study analyses in detail the debenture issue and rights issue practices and their trends in the capital market. This study seeks to ascertain the financial signals emitted by debt-financing and equity financing based on the analyses of MPS and EPS before and after debenture and rights issues by the sampled companies.

Specifically expressed, the main objectives of the study are as follows:

a. To study how debt-financing practice has evolved and its trend progressed in the Nepalese capital market.
b. To analyze whether debt financing (debenture issue), as suggested by the theory of financial signaling on capital structure issues, sends positive signals to the capital market in the Nepalese context.
c. To analyze how rights issue practice has grown to be so widely exercised by the Nepalese companies in recent years.

d. To study the signals equity financing (rights issue) sends to the capital market and its impact on the MPS.
e. To study the association of debt-financing (debenture issues) and equity financing (rights issues) with firm's profitability scenario.

1.4 Significance of Study

Surprisingly, not much can be found as far as research works by Nepalese researchers on financial signaling is concerned. This study fills the dearth of research work in this respect. Therefore, the study is believed to be useful to academicians, financial institutions, and regulatory authorities.

In addition to reviewing the trends of debenture issue and rights issue practices, the study goes on to analyse the impacts these issues make on the MPS of the issuing companies. This study also attempts to ascertain the association of debenture issue and rights issue with the profitability of the issuing firms.

Some points of the significance are pointed out below:

a. This study explains in detail the development of debt-financing (debenture issues) by the Nepalese corporate houses.
b. It finds out whether debt-financing, in conjunction with the theoretical concept of financial signaling on capital structure issues, emits positive signals to the capital market.
c. It makes an observation of the development of rights issue practice in the Nepalese capital market and its widespread application by the companies, particularly financial institutions in recent years.
d. It examines the impacts on the MPS and financial signals caused by rights issues.
e. It throws light on the relationship debt-financing (debenture issues) and equity financing (rights issues) have with firm's profitability scenario.

1.5 Limitations of Study

Alike other research works; this study, too, is faced with some constraints. Some of the limitations are of general nature as encountered by every research work. And there are some specific limitations faced by this particular study.

The limitations can be pointed out as follows:

a. Signals emitted by common stock financing can not be examined on the basis of ordinary equity shares. This is because no company has till date issued to general public common stock for the second or more time(s) in Nepal. The researcher is compelled to take rights issue in place of common equity for the study purpose.
b. Data have been obtained from secondary sources. Accuracy of the conclusions depends on the reliability of data provided.
c. Among the 142 companies listed for securities transactions in NEPSE banks at the end of FY 2007/08, data of only a few companies, mainly financial institutions, have been taken into consideration.
d. Non-availability of various references and sources also constitutes a constraint.
e. Securities traded in NEPSE are limited in number and types. Many wide-ranging and diversified securities traded in international stock markets are not traded in Nepalese stock market.
f. Since the study is meant to fulfill an academic obligation, time limitation is another constraint.

1.6 Organization of Study

The study is organized into five chapters, each of which is meant to be the parts of a systematic presentation on financial signaling due to debt-financing (debenture issues) and equity-financing (rights issues).

Chapter I: **Introduction**

The chapter contains the introductory part of the study. This chapter describes the general background of the study, statement of the problem, objective of the study, significance of the study, limitation of the study, and organization of the study.

Chapter II: Review of Literature

This chapter is assigned to the conceptual review of relevant theories and brief review of related and pertinent literature available. It includes a discussion on the conceptual framework and review of some of the major studies done in past on the related field of study.

Chapter III: **Research Methodology**

This chapter describes the research methodology employed in the study. This deals with the nature and sources of data, population and sample, the model of analysis, meaning and definition of statistical tools applied therein.

Chapter IV: **Presentation and Analysis of Data**

This chapter deals with the presentation and analysis of both primary and secondary data by using mathematical & nonmathematical tools and it includes the major findings of the study.

Chapter V: Summary, Conclusions and Recommendations

This chapter consists of summary, conclusions, and recommendations of the study. The bibliography and annexes are incorporated at the end of the study.

CHAPTER - II

REVIEW OF LITERATURE

2.1 Introduction

This chapter includes review of literature of previous studies carried out on capital structure and financial signaling. It also explains the concept of information asymmetry. The chapter attempts to give a conceptual framework on capital structure theories and financial signaling resulted by capital structure reshuffle. It provides the foundation for developing a theoretical framework. It also determines the research gap that remains to be fulfilled in this particular field of study after analyzing some past research works carried out inside and outside the country.

This chapter is mainly divided into two headings.

2.2 Conceptual framework

2.3 Review of empirical studies

2.2 Conceptual framework

The conceptual framework comprises theoretical explanation of capital structure and its components, capital structure theories, optimal capital structure, and factors affecting capital structure decisions. It also includes the theoretical explanation of financial signaling and information asymmetry.

2.2.1 Capital Structure and its Components

The term capital structure is used to represent the proportionate relationship between debt and equity. Equity includes paid-up share capital, share premium and reserves and surplus (retained earnings). The financing or capital structure decision is a significant managerial decision. It influences shareholder's return and risk. Consequently, the market value of the share may be affected by the capital structure decision. The company will have to plan its capital structure initially at a time of its promotion. Subsequently, whenever funds have to be raised to finance investments, a capital structure decision is involved. A demand for raising funds generates a new capital since decision has to be made as to the quantity and forms of financing. This decision will involve an analysis of the existing capital structure and the factors which will govern the decision at present.

The debt-equity mix has implications for the shareholders' earnings and risk, which in turn, will affect the cost of capital and the market value of the firm (Pandey, 1999:633).

2.2.1.1 Equity

A firm sells shares to acquire equity funds. Shares represent ownership rights of their holders. Buyers of shares are called shareholders and they are the legal owners of the firm whose shares they hold. Shareholders invest their money in the shares of a company in the expectation of a return on their invested capital. The return on the shareholders' capital consists of dividend and capital gain. Shareholders make capital gains by selling their shares.

Shareholders can be of two types: ordinary (or common) and preference. Preference shareholders receive dividend in a fixed rate and they have a priority over ordinary shareholders. The dividend rate for ordinary shareholders is not fixed, and it can vary from year to year depending on the decision of board of directors. The payment of dividends to shareholders is not a legal obligation; it depends on the discretion of the board of directors. Since ordinary shareholders receive dividend (or repayment of invested capital, only when the company is wound up) after meeting the obligations of others, they are called owners or residue.

Equity funds can also be obtained by a company by retaining a portion of earnings available for shareholders. This method of acquiring funds internally is called earning retention. Retained earnings are undistributed profits of equity capital. The retention of earnings can be considered as a form of raising new capital. If a company distributes all earnings to shareholders, then, it can reacquire new capital from the same sources (existing shareholders) by issuing new shares called right issue (Pandey, 1999:4).

2.2.1.2 Borrowed Funds (Debt)

Lenders are important source of securing capital. Lenders are not the owners of company. They make money available to the firm on a lending basis and retain title to the fund lent. The return on loans is called interest. Loans are furnished for a specified period at a fixed

rate of interest. Payment of interest is a legal obligation. The amount of interest is allowed to be treated as expense for computing corporate income taxes. Thus the payment of interest on borrowing provides tax shield to a firm. The firm may borrow funds from a large number of sources such as banks, financial institutions, public or by issuing bonds or debentures. A bond or debenture is a certificate acknowledging the money lent by a bondholder to the company. It states the amount, the rate of interest and the maturity of the bond or debenture (Pandey, 1999:4).

2.2.2 Capital Structure Theories

Various studies on capital structure by scholars have produced several theories. Basically, we can group the theories into two schools of thoughts. One suggests that an optimal capital structure exists for a firm while the other group of theories holds the view that no such capital structure exists. Still the theories based on both versions have dominated the financial world. They are classified as follows:

Behavioural Theories

a) Net Income (NI) Approach
b) Net Operating Income (NOI) Approach
c) Traditional Approach

Contemporary Theories

a) M-M Theory without Taxes
b) M-M Theory with Taxes

2.2.2.1 Behavioural Theories

David Durand (Durand, 1952) developed behavioural theories on capital structure. He considered the rational reaction of investors to firm's leverage risk. Net Income (NI) Approach and Traditional Approach argued capital structure as relevant matter while Net Operating Income (NOI) Approach and M-M Approach argued capital structure as irrelevant matter. Behavioural theories by Durand sound intuitively appealing. Still they lack scientific base.

a) Net Income (NI) Approach

NI Approach is a relevant theory of capital structure. According to this approach, the capital structure decision is relevant to the valuation of firm and the overall cost of capital. According to this approach, there is no change in the attitude of the both stockholders and debt holders regarding their required rate of return in response to a change in debt-equity ratio of a firm. In other words, the cost of debt capital and the cost of equity capital remain unchanged when leverage ratio varies. Due to the limited degree of risk, the debt holder's required rate of return is relatively lower than that of equity holders. So, the debt financing is relatively cheaper than equity financing.

In addition, at constant cost of equity (Ke) and cost of debt (Kd), the overall cost of capital (Ko) declines with the increased proportion of debt in the capital structure. In other words, increment of debt results into lower overall cost of capital and higher value of the firm. The NI approach is based on the following assumptions (Khan and Jain, 1999: 477):

i. The corporate taxes do not exist.
ii. The use of debt does not change the risk perception of investors.
iii. The cost of debt (Kd) is less than the equity capitalization rate or cost of equity (Ke).

As per the above assumptions, the increase in debt ratio magnifies the earning per share. On the given equity capitalization rate, the increase in EPS makes an increase in market price of stock.

$$MPS = \frac{\text{EPS}}{\text{Ke}}$$

Where,

MPS = Market price of stock

EPS = Earning per share

Ke = Cost of equity

In other words, the increase in debt ratio causes decline in overall cost of capital (Ko) and decrease in Ko leads to in increase in value of the firm.

$$V = \frac{\text{NOI}}{\text{Ko}} = \frac{\text{EBIT}}{\text{Ko}}$$

Where,

V = Market value of the company

NOI = Net operating income

Ko = Overall cost of capital

Hence, a firm can maximize its market price of stock or value by achieving the optimal capital structure by making judicious mix of debt and equity as shown in the figures below:

Figure: 2.1

Net Income Approach

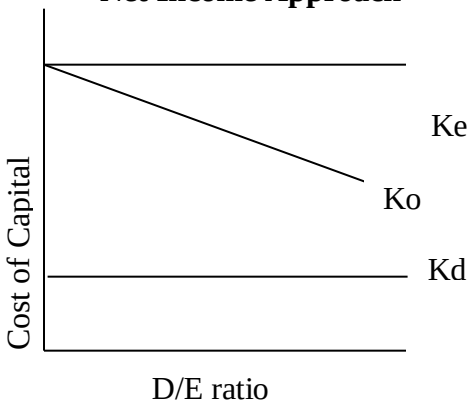
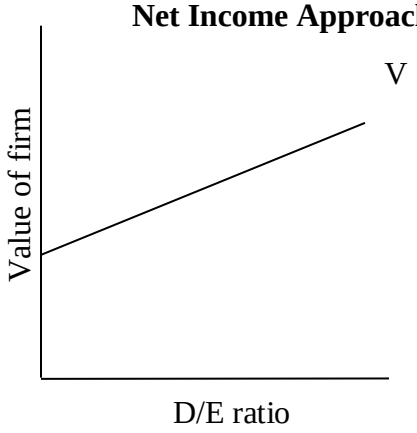


Figure: 2.2

Net Income Approach



Where,

D/E = Debt Equity ratio

V = Value of firm

From the above figures, it is clear that cost of debt (Kd) and cost of equity (Ke) are constant but overall cost of capital (Ko) is declining at increasing level of debt whereas the value of the firm is maximum with higher level of debt. Therefore the optimum capital structure would occur at the point where the value of firm is maximum and overall cost of capital is minimum.

b) Net Operating Income (NOI) Approach

The NOI approach is also known as irrelevancy theory of capital structure because this theory holds that capital structure is irrelevant to the value of firm and overall cost of

capital. It implies that the total value of the firm is unaffected by its capital structure. According to this approach, the equity holders feel higher degree of risk and demand higher rate of return for higher use of leverage. In addition, the cost of equity increases with increase in debt level and higher cost of equity offsets the benefit of cheaper debt financing. There is no effect at all on overall capitalization rate of the firm. The overall cost of capital (Ko) and cost of debt (Kd) remain constant regardless of the degree of leverage.

Therefore, this approach argues that the capital structure decision of the firm is irrelevant. Any change in leverage will not lead to any changes in the total value of the firm. The NOI approach is based on the following assumptions (Pandey, 1999: 680):

i) Corporate taxes do not exist.
ii) Cost of debt remains constant.
iii) Cost of equity increases with increase in use of debt.
iv) Overall cost of capital remains constant.
v) The market capitalizes the value of the company as a whole. Thus the split between debt and equity is not important.

According to this approach, both the earning per share (EPS) and equity capitalization rate (Ke) increases on same proportion with the increasing debt ratio. So, market price of stock (S) remains unchanged on any leverage level. The total market value of the company also remains unchanged, since as previously said that the net operating earnings as well as overall cost of capital do not vary with the leverage. The market value of the company is obtained as below:

$$V = \frac{\text{NOI}}{\text{Ko}}$$

Where,

V = Value of the firm
NOI = Net operating income
Ko = Overall capitalization rate

The NOI approach is shown in the figures below:

Figure 2.3

Net Operating Income Approach

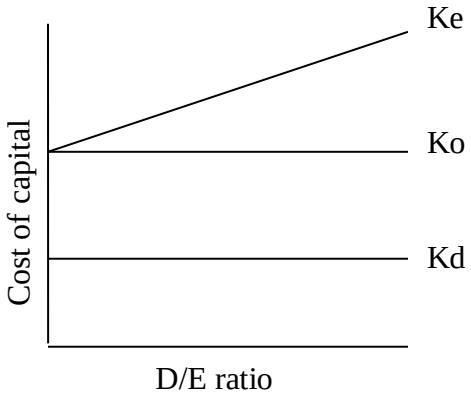
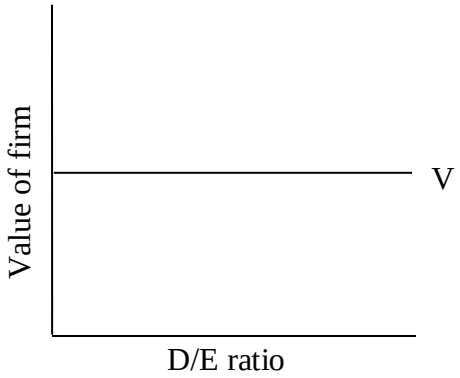


Figure 2.4

Net Operating Income Approach



The above figures show that the cost of debt (Kd) and overall capitalization rate (Ko) remain constant and the cost of equity (Ke) is increasing with higher level of debt use. Apart from this, the value of firm (V) is also constant with varying level of leverage. At the extreme degree of financial leverage, hidden costs become very high and hence the firm's cost of capital and its market value is not influenced by the use of additional cheaper debt fund. Thus, this approach suggests that there is no optimal capital structure.

c) Traditional Approach

Developed by Ezra Solomon, the traditional approach is also known as intermediate approach between net income (NI) approach and net operating income (NOI) approach. It assumes that there exists an optimal capital structure and that a firm can increase its total value through the judicious use of leverage (Van Horne, 2000: 261). In other words, the value of the firm can be maximized or overall cost of capital can be minimized through proper mix of debt and equity capital. Due to the fact that debt increases the fixed obligation to the company and so increases the financial risk, the investors raise the required rate of return on equity (Ke). The increase in cost of equity (Ke) does not offset entirely the benefits of using cheaper debt funds. Thus, overall cost of capital (Ko) decreases up to certain level of debt use and then after, it begins to increase. In other words the cost of equity (Ke) increases at lower rate and cost of debt (Kd) remains constant up to certain level of debt use. At that time, the overall cost of capital (Ko) is also minimized and the value of firm (V) is maximized. After that level of leverage, cost

of equity (Ke), cost of debt (Kd) and overall cost of capital (Ko) increase rapidly leading the value of firm (V) to decrease.

So, traditional approach implies that the cost of capital is not independent of the capital structure and that there is an optimal capital structure.The optimal capital structure exists at that point where overall cost of capital (Ko) is minimum and the value of firm (V) is maximum. The assumptions of this approach are as follows:

i) Equity holders adjust their required rate of return proportionately for every unit of debt inclusion.
ii) Debt holders do not really care for the level of debt inclusion and do not demand any premium for the leverage risk as least in the beginning.
iii) The expected outcome of the behaviour of equity holders in the benefit of cheaper debt financing causes the cost of equity and debt to increase.

The manner in which the overall cost of capital reacts to change in capital structure can be divided into three stages (Solomon, 1969: 94):

Figure 2.5
Traditional Approach

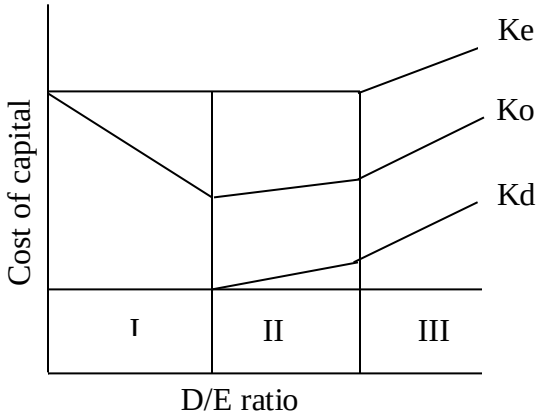
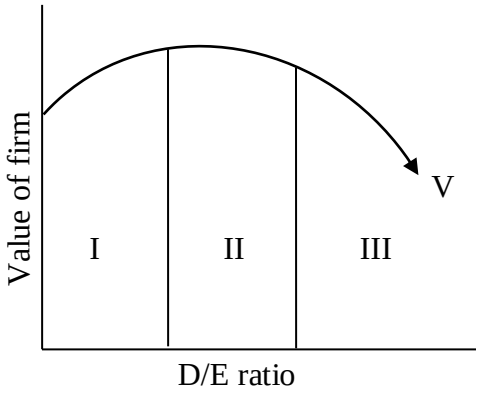


Figure 2.6
Traditional Approach



First Stage: Increasing Value

The first stage of traditional approach begins with the introduction of debt in the total capital. Initially, the cost of equity (Ke) remains constant or rises slightly with the use of debt fund and it does not increase fast enough to offset the advantage of low cost debt.

During this stage, the cost of debt (Kd) remains constant or rises negligibly since the market views the use of debt as a reasonable policy. As a result, the value of firm (V) will increase or the overall capitalization rate (Ko) falls with increase in leverage. This implies that, within acceptable limit of debt, the average cost of capital will decline with leverage (Pandey, 1999: 683)

Second Stage: Optimal Value

Once the firm has reached a certain degree of leverage, further application of debt has a negligible effect on the value of the firm or overall cost of capital. This is because the increase in cost of equity offsets the advantage of low cost debt. Within the range or at a specific point, the value of the firm will be maximum or the cost of capital will be minimum (Pandey, 1999: 684).

Third Stage: Declining Value

In this stage, the cost of debt and equity will tend to rise as a result of increasing degree of financial risk. The value of the firm decreases or the overall cost of capital increases beyond the acceptable limit of leverage. This happens because the cost of equity increases by more than enough to offset the advantages of low cost debt (Pandey, 1999: 684).

The overall effect of these three stages is to suggest that the cost of capital is the function of leverage. It declines with increasing level of debt and after reaching a certain point starts rising.

2.2.2.2 Contemporary Theories

Franco Modigliani and Merton Miller propounded the theory of capital structure. Their original insights (1958) and continued developments (1963, 1965) laid the foundations of modern corporate finance. In a survey of Financial Management Association members in 1979, Cooley and Heck (1981) found that researchers judged the Modigliani and

Miller article as having the greatest impact on the field of finance of any work published. The major aspects of their theory are discussed below:

a) Modigliani and Miller Theory (In the World Without Taxes)

Modigliani and Miller (M-M) showed that, under certain assumptions, a firm's overall cost of capital, and therefore, its value is independent of the capital structure. In their original position, M-M advocate the relationship between leverage and cost of capital which is explained by NOI approach. "They make the formidable attack on the traditional position by offering behavioural justification for having the cost of capital (Ko) remain constant throughout all degree of leverage" (Solomon, 1969:92). M-M contained that the cost of capital is equal to the capitalization rate of pure equity stream of income and the market value is ascertained by capitalizing its expected income at the appropriate discount rate for its risk class. The following assumptions regarding the behaviour of the investors and capital market, the action of the firm and the tax environment are crucial for the validity of the M-M hypothesis:

i) Securities are traded in perfect capital market situations.
ii) No transaction cost is incurred while buying and selling Securities.
iii) Firms can be grouped in the homogenous risk class.
iv) Dividend payout ratio is 100 per cent.
v) Corporate and personal taxes do not exist.
vi) Investors have homogenous expectations about expected future corporate earnings and the risk of the earnings.
vii) EBIT and bonds are perpetual.

Proposition I

The M-M proposition-I states that the market value of a firm is independent of its capital structure. It is because the value of the firm is determined by capitalizing the net operating income (NOI or EBIT) at a rate appropriate for the firm's risk class. Accordingly, the value of the firm is obtained by:

$$V = \frac{\text{NOI}}{\text{Ko}}$$

Where,

V = Value of the firm

NOI = Net operating income

Ko = Risk-adjusted capitalization rate

The M-M propostion-I also implies that the weighted average cost of capital (Ko) to any firm (i.e. levered or unlevered) is completely independent of its capital structure and equal to the cost of equity (Ke) to an unlevered firm in the same risk class. Thus, there is no relationship between the value of a firm and the way its capital structure is made up, nor there is any relationship between the average cost of capital and the capital structure. It is identical to the NOI approach.

Proposition II

The proposition II states that the cost of equity rises proportionately with the increase in the financial leverage in order to compensate in the form of premium for bearing additional risk arising from the increased leverage. In other words, for any firm (i.e. levered or unlevered) in a given risk class the cost of equity (Ke) is equal to the constant average cost of capital (Ko) plus a premium of financial risk which is equal to debt equity ratio times the spread between constant average cost of capital (Ko) and interest rate (Kd). It can be expressed as follows:

$$Ke = Ko + (Ko - Kd)\ D/E$$

Where,

Ke = Cost of equity

Ko = Average cost of capital

Kd = Cost of debt or interest rate

D/E = Debt equity ratio

The validity of proposition-II depends upon the assumption that Kd will not increase for any degree of leverage but in practice Kd increases with leverage beyond a certain level. However, M-M mention that even if Kd is the function of leverage, Ko will remain constant as Ke will increase at a decreasing rate (Pandey, 1981: 40).

Taking both the propsitions together, the M-M theory in the absence of taxes contends that the overall cost of capital as well as the value of the firm is independent of capital structure. The theory in a tax free world is identical to the NOI approach. In other words, the value of levered firm (V_L) is equal to the value of an unlevered firm (V_U) in the same risk class i.e. $V_L = V_U$ (Pradhan, 1992: 363).

b) M-M Theory (In the World With Taxes)

The first M-M assumption on non-existence of corporate and personal taxes was not valid. In reality, there exist corporate taxes and interest on debt which is deductible for the purpose of tax calculation. It means after-tax net income increases by the amount of tax benefit due to prior deduction of interest (debt tax shield) which results in an increase in the value of the firm by the same amount.

Proposition-I

In accordance with proposition-I, the value of a firm is determined by capitalizing the net operating income before tax at a rate that is appropriate to its risk class. Where tax is considered, interest payment on debt makes a tax saving since interest is deducted prior to tax calculation. Thus, the value of the levered firm will be more by the present value of debt tax shield than that of unlevered firm. In other words, the value of levered firm is equal to the value of unlevered firm plus present value of debt tax shield as shown below:

$$V_L = V_U + BT$$

Where,

V_L = value of levered firm

V_U = value of unlevered firm

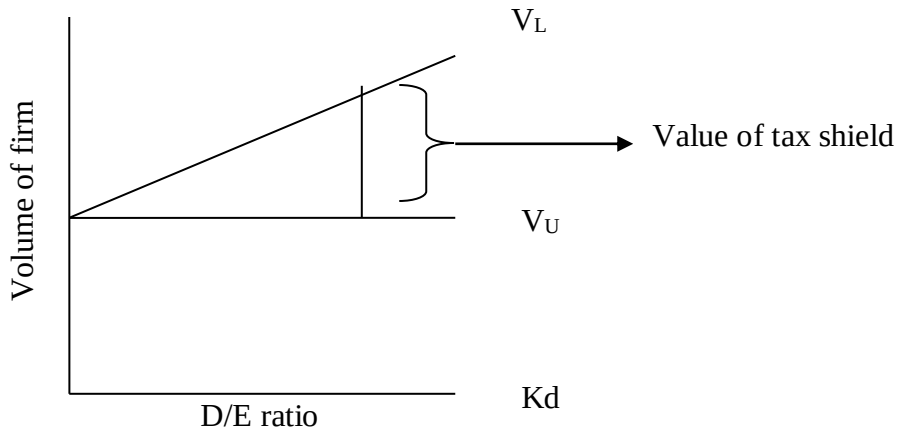
B = value of debt

T = corporate tax rate

BT = debt tax shield

Figure 2.7

M-M Theory With Taxes



Proposition-II

This proposition states that the cost of equity of levered firm (KeL) rises with leverage ratio to compensate for the additional leverage risk while the cost of debt (Kd) remains constant because debt is assumed to be riskless (Pradhan, 1992:369).

$$Ke_L = Ke_U + (Ke_U - Kd)\ (1\text{-}T)\ D/E$$

Where,

Ke_L = Cost of equity of levered firm

Ke_U = Cost of equity of unlevered firm

Kd = Cost of debt

T = Tax rate

D/E = Debt equity ratio

The cost of equity increases with D/E ratio. On the other hand, the tax deductability of interest on debt lowers the cost of debt but still remains constant irrespective of debt-equity ratio. This reduction in the cost of debt as a result of tax saving outweighs the increased cost of equity, forcing the average cost of capital (Ko) to decline with every unit of additional debt financing. As a result, the weighted average cost of capital of the firm does not remain unchanged when there is a change in D/E ratio. Following equation shows the same:

$$Ko_L = Ke_L\ (E/V) + Kd\ (1\text{-}t)\ D/E$$

Where,

Ko_L = Overall cost of capital of levered firm

Ke_L = Cost of equity of unlevered firm

E = Equity amount

V = Total value

T = Tax rate

D/E = Debt equity ratio

The above equation makes it clear that the cost of equity increases with D/E ratio while the average cost of capital decreases continuously until it reaches the level of cost of debt at fully levered level (i.e. 100% debt financing).

Hence, it can be concluded that the M-M theory with taxes is identical to Net Income (NI) approach which says that the value of firm increases with every additional unit of debt financing. As such, the theory suggests that it is always better to have maximum debt financing.

2.2.3 Does Capital Structure Affect the Value of the Firm?

Whether or not the capital structure of any firm affects its value? This is the matter of controversy which began in the late 1950's and there is as yet no perfect answer. Different scholars have expressed different views on this as presented below.

According to Weston and Brigham, capital structure is the permanent financing of the firm, representing primarily by long term debt, preferred stock and common stock, but excluding all short term credit (Weston and Brigham, 1981:555). Thus, a firm's capital structure is only a part of its financial structure. The capital structure of the firm, defined as the mix of financial instruments used to finance the firm, is simplified to include only long term interest bearing debt and common stock, excluding short-term liabilities. As the proportion of debt in the capital structure increases, both the cost of equity and the cost of debt begin to rise, reflecting the increased financial risk but the two do not necessarily rise in the same proportion. Thus with the increasing use of debt, the overall

cost of capital begins to fall because the after-tax cost of debt is typically cheaper than the cost of equity. After a point, the use of debt, while the financial markets consider to the signs of excessive use of debt and too much financial risk, completely offsets the advantage of using the lower cost of debt. So, they agree with the statement that the judicious mix of long term debt and equity can lower the total cost of capital for the company, resulting in higher profits and stock price.

In the words of Pandey, "The value of the firm depends upon its expected earning streams and the rate used to discount this stream (Pandey, 1993: 560). The rate used to discount the earning stream is the required rate of retun or cost of capital. Thus, the capital structure decision can affect the value of the firm either by changing the expected earnings or the cost of capital or both."

According to Ezra Solomon, the cost of debt is less than that of equity but it increases the probability of financial distress (Solomon, 1969:94). Thus, an effect of leverage depends very much on the relationship between the firm's ability to earn its rate of return on assets and interest cost of debt. They conclude that the judicious use of debt enhances expected return and the value of the firm.

2.2.4 Optimal Capital Structure

The optimal capital structure may be defined as the relationship between debt and equity securities, which maximizes the value of the firm's equity stock. The firm attains optimum capital structure at the level where it can maximize its ownership share market value. The value will be maximized when the marginal real cost of each source of funds is the same. In practice the determination of the optimal capital structure is formidable task and one has to go beyond they theory. Since a number of factors influence the capital structure decision of a company which is highly psychological, complex and qualitative, and the judgment of the person taking the person taking the capital structure decision plays a crucial part. Optimal capital structure may exist under three situations (Pandey, 1995):

i) The total value of the firm is maximized when its equity stock is at maximum value. It should be remembered that debt and preferred stock are not affected by fluctuations in market values because they offer a fixed return and their values, therefore, fluctuate with the level of interest rate and preferred stock yield. The value of equity stock however fluctuates with profits of the firm. Thus, in the optimal capital structure, the total value of the firm as well as value of the equity should be maximized.

ii) The equity stock value should be maximized on a per share basis to ensure optimum capital structure. The issue of additional shares may increase the total value of equity stock but this action may result in a decline in per share value of equity stock, and the firm may move away from its optimum capital structure. It is necessary therefore, to have a maximum value of the equity share on optimal capital structure.

iii) The optimal capital structure occurs when the firm's overall cost of capital is at its lowest point. There is, thus, a link between the cost of capital and the optimum capital structure.

Whenever the returns on assets fairly exceed the cost of debt, leverage is favorable. And the probable return on equity is raised using it. However, leverage is a two-edged sword, if the returns on assets are less than the cost of debt, then leverage reduces the returns on equity. The more leverage the firm employs, the greater this reduction becomes. Consequently, leverage may be used to boost stockholder returns but it is used at the risk of increasing losses (Weston and Brigham, 1981).

After analyzing various factors, a firm establishes a target capital structure that may change over time as conditions vary. If the actual debt ratio is below target level, issuing debt will be an option. Using more debt raises the riskiness of the firm's earning stream, but it also raises the expected rate of the return on equity (ROE). Higher risk tends to lower the stock's price, but a higher expected rate of return raises it (Weston and Brigham, 1982:591).

2.2.5 Primary Factors Affecting Capital Structure Decisions

Among the various factors that can influence capital structure decisions of a firm, four primary factors include business risk, the firm's tax position, financial flexibility, and managerial conservatism or aggressiveness (Brigham & Houston, 2001:602).

i) Business risk: It results from the riskiness inherent in the firm's operations if it used debt. The greater the firm's business risk, the lower its optimal debt ratio.
ii) The firm's tax position: A major reason for using debt is that interest is deductible which lowers the effective cost of debt. However, if most of a firm's income is already sheltered from depreciation tax shields, by interest on currently outstanding debt, or by tax loss carry forwards, its tax rate will be low. So additional debt will not be as advantageous as it would be to a firm with a higher effective tax rate.
iii) Financial flexibility: It refers to the ability to raise capital on reasonable terms under adverse conditions. Corporate treasurers know that a steady supply of capital is necessary for operations, which is vital for long-run success. They also know that when money is tight on the economy or when a firm is experiencing operating difficulties, suppliers of capital prefer to provide funds to companies with strong balance sheets. Therefore, both the potential future need for funds and the consequences of a funds shortage influence target capital structure – the greater the probable future need for capital, and the worse the consequences of a capital shortage, the stronger the balance sheet should be.
iv) Managerial conservatism or aggressiveness: Some managers are more aggressive than others, hence some firms are more inclined to use debt in an effort to boost profits. This factor does not affect the true optimal or value-maximizing capital structure, but it does influence the manager-determined target capital structure.

2.2.6 Financial Signaling

Financial signaling occurs when capital structure changes convey information to security holders. Managers may use capital structure changes to convey information about the profitability and risk of the firm. Since a manager's pay and benefits may depend on the firm's market value, it gives the manager an incentive to let investors know when the firm is undervalued. In such a situation, the manager can alter the firm's capital structure by issuing more debt. Since increased leverage is associated with higher probability of

bankruptcy upon which the manager would be penalized, the investors conclude that the firm's stock is undervalued and things really are better than the stock price reflects. Hence, debt issues are regarded as "good news" and carry a positive signal whereas stock issues are perceived as "bad news" and carry a negative signal (Van Horne, 2002:278).

"M-M assumed that investors have the same information about a firm's prospects as its managers – this is called symmetric information (Brigham & Houston, 2001:627). However, in fact managers often have better information than outside investors. This is called asymmetric information, and it has an important effect on the optimal capital structure. To see why, consider two situations, one in which the company's managers know that is prospects are extremely favorable (Firm F) and one in which the managers know that the future looks unfavorable (Firm U).

Suppose, for example, that Firm F's R&D labs have just discovered a non-patentable cure for the common cold. They want to keep the new product secret as long as possible to delay competitors' entry into the market. New plants must be built to make the new product, so capital must be raised. How should Firm F's management raise the needed capital? If the firm sells stock, then, when the profits from the new product start flowing in, the price of the stock would rise sharply, and the purchasers of the new stock would make a bonanza. The current stockholders (including the managers) would also do well, but not as well as they would have done if the company had not sold stock before price increased, because they would not have had to share the benefits from the new product with the new stockholders. Therefore, one would expect a firm with very favorable prospects to try to avoid selling stock and, rather, to raise any required new capital by other means, including using debt beyond the normal target capital structure.

Now let's consider Firm U. Suppose its managers have information that new orders are off sharply because a competitor has installed new technology that has improved its products' quality. Firm U must upgrade its own facilities at high cost, just to maintain its current sales. As a result, its return on investment will fall (but not by as much as if it took no action, which would lead to a 100 per cent loss through bankruptcy). How should

Firm U raise the needed capital? Here the situation is just the reverse of that facing Firm F which did not want to sell stock so as to avoid having to share the benefits of future developments. Hence, Firm U should choose to issue stock. A firm with unfavorable prospects would want to sell stock which would mean bringing in new investors to share the losses.

Firms with extremely bright prospects prefer not to finance through new stock offerings, whereas firms with poor prospects do like to finance with outside equity. How should you, as an investor, react to this conclusion? You ought to say, 'If I see that a company plans to issue new stock, this should worry me because I know that management would not want to issue stock if future prospects looked good. However, management would want to issue stock if things looked bad. Therefore, I should lower my estimate of the firm's value, other things held constant, if it plans to issue new stock.' The announcement of a stock offering is generally taken as a signal that the firm's prospects as seen by its management are not bright. This, in turn, suggests that when a firm announces a new stock offering, more often than not, the price of its stock will decline. Empirical studies have sown that this situation does indeed exist."

"Signaling effects and their impact on investors' perceptions, differ substantially across firms. To illustrate, asymmetry is typically much greater in the drug and semiconductor industries than in the retailing and trucking industries, because success in the drug and semiconductor industries depends on secretive proprietary research and development. Thus, managers in these industries have significantly more information about their firms' prospects than do outside investors. Also, emerging firms with limited capital but god growth opportunities are recognized as having to use external financing, so the announcement of new stock offerings by a new company is not viewed with as much concern by investors as are offerings by mature firms with limited growth opportunities. Thus, although signaling affects all firms, its impact varies from firm to firm (Brigham, Gapenski, Ehrhardt, 2001: 645)."

2.2.6.1 Information Asymmetry

Asymmetric information is the situation in which managers have different (better) information about firm's prospects than do investors (Brigham & Houston, 2001:627). Managers often have better information about their firms than do outside investors. This is called asymmetric information, and it has an important effect on the optimal capital structure. When financing an investment project, management will want to issue the overvalued security if it is acting in the interests of current stockholders. As Myers and Majluf suggest, it will issue stock if it believes the stock is undervalued. However, investors are not unmindful of this phenomenon, so debt issues are regarded as "good news" and stock issues as "bad news."

The greater the asymmetry in information between insiders (management) and outsiders (security holders), the greater the likely stock price reaction to a financing announcement. In general, empirical evidence is consistent with the asymmetry of information idea. Around the time of the announcement, leverage increasing transactions tend to result in positive excess returns to stockholders, whereas leverage-decreasing transactions result in the opposite. The evidence overall is consistent with a financial signaling effect accompanying the choice of security employed in the capital structure.

In financial markets, informational asymmetries are particularly pronounced. Borrowers typically know their collateral, industriousness, and moral rectitude better than do lenders; entrepreneurs possess "inside" information about their own projects for which they seek financing. Lenders would benefit from knowing the true characteristics of borrowers. But moral hazard hampers the direct transfer of information between market participants. Borrowers cannot be expected to be entirely straightforward about their characteristics, nor entrepreneurs about their projects, since there may be substantial rewards for exaggerating positive qualities. And verification of true characteristics by outside parties may be costly or impossible (Leland and Pyle, 1977).

2.3 Review of Empirical Studies

This section includes some pertinent reviews of past studies on financial signaling and capital structure. The section is further divided on to review of empirical studies and review past thesis works.

2.3.1 Review of Journals

Modigliani and Miller (1958), show that capital structure is irrelevant when the capital market is perfect. However, information asymmetry between managers and investors may make the "irrelevant" story change. It is a logical thinking that the extent of information asymmetry depends on the shareholdings of investors. Ross (1977) provides a theoretical framework for the possibility of using financial structure to signal. Leland and Pyle (1977) derive a signaling model wherein insiders' willingness to invest their own money rather than financing by borrowing serves as a signal to the market of the true quality of the project. Heinkel (1982) proposes a signaling model that firms, who try to convince the market of its true type, will gain from overvaluation of one security and lose from undervaluation of the other. To imitate the action of a high value firm to send out false signals, a lower value firm must issue more underpriced debt and reduce the amount of overpriced equity and vice versa. Franke (1987) derives a similar signaling model by looking at the "outsider-rationality condition" and "no-arbitrage condition" on the outsiders' behaviour required by the signaling equilibrium. In his signaling model, supply of the security is perceived as the signal of firm's quality. John (1987) suggests a positive correlation between the leverage and firm value based on risk-shifting incentive arguments.

However, there are some other researches that do not quite agree with the theoretical principles of financial signaling caused by capital structure changes. Some empirical test results are inconclusive regarding the relationship between the managerial shareholdings and debt levels. For example, Kim and Sorensen, Agrawal and Mendelker (1987) find evidence that debt level is positively related to managerial shareholdings. However, Friend and Hasbrouck (1987) suggest a negative relationship between debt level and managerial shareholdings (Tse & Ying Jia, 2001).

After M-M revolutionized the thoughts on capital structure, numerous scholars have studied the topic from different aspects. Some of the important studies on financial signaling related with capital structure decisions which were published on various journals of finance and economics are reviewed in this section.

Ross (1977), in his study titled *"The Determination of Financial Structure: the Incentive Signaling Approach"*, Ross developed an incentive-signaling approach, providing a theoretical framework for the possibility of using financial structure to signal. He describes how signaling and manager compensation arrangements can be used to deal with information asymmetry. In his signaling model, insiders are able to observe firm's future earnings perfectly owing to their private information; they use capital structure to signal in order to maximize their own interest. He postulates that manager-insiders have information about their own firms not possessed by outsiders. He further demonstrates that the capital structure decision is not irrelevant. In some cases a unique interior optimal capital structure exists if

i) the nature of the firm's investment is signaled to the market through its capital structure decision, and
ii) the manager's compensation is tied to the truth or falsity of the capital structure signal

In his model, Ross states that a manager may not trade in the financial instruments of his own firm, thereby avoiding the moral hazard problem as well as the financial instruments of his own firm. To show that investors use the face amount of debt or dividends the managers decides to issue as a signal of the firm's probable performance, he analyses two types of firms.

1. Type A, a firm that will be successful
2. Type B, a firm that will be unsuccessful

He refers D* to be a critical level of debt. Then,

- The market perceives the firm to be Type A if it issues debt greater than D*
- The market perceives the firm to be Type B if it issues debt less than D*

In order for the management of a Type B firm to have the incentive to signal that the firm will be unsuccessful, the payoff from telling the truth must be greater than that produced by telling lies. A large penalty should be fixed against the manager if his firm experiences bankruptcy.

Ross shows that a signaling equilibrium is achieved if Type A managers choose debt financing levels above the critical debt amount, D*, and Type B managers choose debt levels below that amount. Type A managers will have no incentive to change because the compensation system maximizes his return under the true signal. Type B manager will not have an incentive to signal falsely because the penalty built into the incentive structure would reduce his compensation.

Leland and Pyle (1977), in their article named *"Informational Asymmetries, Financial Structure, And Financial Intermediation",* Leland and Pyle contend that the proportion of equity held by owner-manager acts as a signal to the quality of the firm. They show positive correlation of debt financing with the firm's value. According to them, a firm's value will be related positively to the fraction of its equity held by its organizers. They find informational asymmetries to be a primary explanation for the existence of intermediaries and rely on signaling as a significant aspect of the operations of financial intermediaries.

They developed a simple model of capital structure and financial equilibrium in which entrepreneurs seek financing of projects whose true qualities are known only to them.

$$V(\acute{\alpha}) = \frac{1}{(1+r)}\,[\mu(\acute{\alpha}) - \lambda]$$

Where,

V = total market value of the project

ά = the fraction of equity retained by the entrepreneur

r = riskless interest rate

$\mu(\acute{\alpha})$ = the market valuation schedule, expressing the market's perception of the true expected return as a function of $\acute{\alpha}$,

λ = the market's adjustment for the risk of the project with returns x about the mean

They demonstrate that the entrepreneur's willingness to invest in his own project can serve as a signal of project quality. The resulting equilibrium differs importantly from models which ignore informational asymmetries. The value of the firm increases with the share of the firm held by the entrepreneur. In contrast with Modigliani and Miller [1958], the financial structure of the firm typically will be related to project or firm value even when there are no taxes. And firms with riskier returns will have lower debt levels even when there are no bankruptcy costs. Signaling incurs welfare costs by inducing entrepreneurs to take larger equity positions in their own firms than they would if information could be directly transferred; however, that the set of investment projects which are undertaken will coincide with the set which would be undertaken if direct information transfer were possible. Finally, they suggest that financial intermediation, which is difficult to explain in traditional models of financial equilibrium; can be viewed as a natural response to asymmetric information.

Talmor (1981), in the article called *"Asymmetric Information, Signaling, And Optimal Corporate Financial Decisions"*, Talmor's investigates the financial decisions of the firm when information is asymmetric. The emphasis is on the ability of financial instruments to serve as signaling devices through which the true value of the firm can be revealed to the market without moral hazard or disclosure of confidential information. Although the signaling process is typically considered to be costly it is advocated that firms may be better off if they apply this mechanism rather than reveal reliable, but confidential information, or not disclose at all. However, he shows that once a signaling apparatus is invoked by the market, the decision whether or not to signal is not a matter of choice for the individual firm. He considers a setting in which the market views corporate insiders as possessing more information about the profitability of the firm by assuming the only objective of the firm is to maximize the wealth of current investors.

Talmor develops a general signaling theory in corporate finance that is consistent with the classical framework of wealth maximization. The model allows for several financing decisions to be determined simultaneously by considering each decision – both its impact on the value of the firm and its signaling property.

$V = R^{-1} [Vs(B) + Y(P,B)]$

Where,

V = value of the firm

$R^{-1} = \frac{1}{(1+r)} = time$ value of money

VS= value of the firm at given point of time

Y = certainty equivalent term denoting the riskness of future cash flows

P = anticipated future profitability of the firm (p1, p2, ….pn)

B = vector of financial activities undertaken by the manager (b1, b2, ….bn)

Two main conclusions can be drawn from the general model.

i) Whenever informational asymmetry prevails, all non-trivial financial decisions should be considered simultaneously in a signaling setting.

ii) Even if there are more instruments than parameters, despite the redundant costs involved, signaling must take place through all the activities for which the first-best behaviour is non-trivial.

Besides, Talmor also presents a specific structure that deals with the joint determination of capital structure and dividend policy in a signaling setting.

Heinkel (1982), building his study in contrast with the M-M's capital structure irrelevance theory, Heinkel, in an article *"A Theory of Capital Structure Relevance Under Imperfect Information",* introduced asymmetric information in their world of perfect capital market. He developed a signaling equilibrium in which investor expectations about individual firms do depend upon the capital structures of the firms. He describes a costless signaling equilibrium in which sellers incur no losses and are as well off as they would be in case of symmetric information. Unlike Leland and

Pyle, he assumes that all debt is risky so that the present value of a given debt repayment promise does depend on the characteristics of the issuing firm. Insiders know both the true value of their firm, and the value of any given debt repayment promise made by the firm, while capital suppliers know neither. As a result, insiders can potentially profit by selling overpriced securities. He, however, asserts that capital suppliers, by offering only a restricted menu of acceptable debt-equity combinations, are able to eliminate the incentive of firm insiders to misrepresent the characteristics of their firm, and indeed are able to identify the characteristics of a firm from the particular debt-equity financing combinations chosen.

His critical assumption is that firm value is positively related to credit risk. Insiders face opposing incentives in debt and equity markets: if a firm can sell overvalued debt, its equity will be undervalued. The resulting equilibrium with capital structure relevance exists without reliance on other market imperfections such as taxes, bankruptcy costs, or monitoring costs.

Myers & Majluf (1984), in their study titled *"Corporate Financing and Invesment Decisions When Firms Have Information That Investors Do Not Have",* Myers and Majluf present a signaling model that combines investment and financing decisions and is rich in empirical implications. They establish a pecking order of financing where managers will prefer to use retained earnings first, then debt, followed by preferred stock and convertible bonds, and external equity as a last resort.

The study has shown that the announcement of a stock issue is associated with a drop in the corresponding share price. The authors have explained clearly why one would expect this result under asymmetric information. If management is acting in the interests of the current shareholders, it will be reluctant to issue new stock when it knows the value of the firm's existing assets is high. A stock issue, therefore, signals to the market that the firm's current assets are overvalued and drives down the share price.

As before, managers, better than anyone else, are assumed to know the "true" future

value of the firm and of any projects that it might undertake. Furthermore, they are assumed to act in the interest of "old" shareholders, i.e., those who hold shares in the firm at the time a decision is made. Finally, "old" shareholders are assumed to be passive in the sense that they do not actively change their personal portfolios to undo the decisions of management. If shareholders systematically undertake personal portfolio changes to reverse management decisions, then managerial financial decisions become irrelevant. In many cases, however, managers are "old" shareholders.

Myers and Majluf point out that if the firm uses its available liquid assets to finance positive NPV projects, then all positive NPV projects would be undertaken because no new equity is issued and the information asymmetry problem is thereby resolved. They suggest that this maybe a good reason for carrying excess liquid assets. They also suggest that debt financing, which has payoffs less correlated with future states of nature than equity, will be preferred to new equity as a means of financing.

Krasker (1986), in the study called *"Stock Price Movements in Response to Stock Issues Under Imperfect Information"*, Krasker examined the function relating the number of new shares issued by a firm to the resulting change in firm's stock price, when insiders are asymmetrically informed. Several empirical studies had already developed some models in which stock issue causes a decline in the corresponding stock price of a firm. He, therefore, shifted his focus of study on the relationship between stock price and issue size.

The model Krasker developed limits the study on stock-financing and particularly the size of stock issue. The model ignores the possibility of debt-financing as simultaneous issue of debt and stock would, according to him, complicate the theory. His model postulates that at the moment new equity is issued, investors know how to price that stock. If the information asymmetry is restricted to the value of the firm's assets in place, then the greater is investors' uncertainty about the value of those assets, the smaller will be the unexpected underinvestment, and the higher will be the stock price prior to the issue announcement. In doing so, investors would certainly take into account all the

firm's possible future actions, and also the fact that the manager is optimal to issue equity rather than raise funds by some other means, or not at all.

The principal results of his study include the following.

- The stock price following the announcement of a stock issue should be inversely related to the issue size.
- The rate of decrease in the stock price as the issue size increases can be so rapid that the product of the two – the total proceeds of the issue – is bounded.
- There will be underinvestment in asymmetric-information equilibrium, relative to the case of complete information.

Poitevin (1989), in his study called "*Financial Signaling and the "Deep-pocket" argument"*, M. Poitevin provides a formal representation of Telser's (1966) "deep-pocket" argument by considering a model in which he considers the financial structure of young firm (entrant) and established firm (incumbent). The entrant and incumbent have to finance the same fixed cost before starting production. There is, however, an information asymmetry between the entrant and the incumbent in financial markets. Financiers can assess the value of the incumbent but are uncertain of the entrant's quality. An efficient entrant, according to Poitevin, has an incentive to signal his value to financiers, and financial structure acts as a signal of quality. The efficient entrant finances with debt to reveal his value to financial markets. But debt financing renders the entrant vulnerable to predation through the possibility of bankruptcy as the situation can be exploited by the incumbent predator that finances with equity. It may still be a rational strategy for the efficient entrant to finance with debt, as this allows him to reveal his value to financiers.

Hence, the informational structure influences the firms' financial structures, and it affects market structure and the extent of competition in the industry through the predatory incentives it induces. In his model, signaling has, therefore, some consequences for efficiency. Signaling effects include not only a transfer of rents between informed and

uninformed players but also an impact on market structure and the extent of competition in the output market.

Tse & Ying Jia (2007), in their study is titled *"The impacts of corporate ownership structure on the incentive of using capital structure".* In what seems to be producing quite a contradictory-to-theory conclusion, Tse and Ying Jia show that capital structure is not homogeneously used as a signaling tool, and firms with insider ownerships less or equal to 1.14 per cent are more likely the signallers. They looked at the matter at a more micro level by percentiles regression based on the firms' D/E ratios range. They found that market capitalization, dividend yield and debt level have strong positive relationship in all range of D/E levels. However, the explanatory power of insider ownerships and major shareholdings on debt level are varied and depends on the D/E ranges.

They examined the relationship between insider ownership and debt by using one of the regression techniques. A negative relationship between these two variables was found in the range of insider ownerships ≤1.14 per cent. When falling between 1.14 and 1.28 per cent, insider ownership is positively related with D/E ratios. When insider ownerships are beyond 1.28 per cent, there is no significant relationship with D/E ratios.

Then, they divided their sample into two groups: one group with insider ownership ≤1.14 per cent, the other with insider ownerships >1.14 per cent. Regression analysis on the group with ≤1.14 per cent insider ownerships provides evidence to support the capital structure signaling hypothesis; while the regression results on the other ranges do not provide such supports. These findings in general can be explained by agency cost and information asymmetry frameworks. The higher the level of insider ownership, the lower the agency costs problem and the lesser the extent of information asymmetry; and in turn the lower the incentive of using capital structure to signal. Their results also show that in addition to insider ownership, market capitalisation, dividend yield, listing years, investment risk and firms growth rates also play important roles to affect managers decision to use capital structure to signal or not.

Shrestha (1985), carried out a study on capital structure of selected public enterprises (PEs). His study included a sample of ten public enterprises of Nepal. He basically analysed three aspects of capital structure which included the determinants of capital structure, capital structure so far devised in the selected enterprises, and possible measures to overcome capital structure-related problems. He used ratio analysis as main analytical tool.

His study found that the PEs lacked objective-based financial plans and policies to guide financial decisions, and, therefore, had had confusing capital structures. In many instances, adhocism became the basis of capital structure and the PEs wanted to eliminate debt to the maximum extent possible. Neither the PEs nor the regulatory bodies had developed any criteria in determining capital structure of a firm. Debt-equity ratio continued to remain a ticklish problem. He, therefore, suggested that the debt-equity ratio be maintained in a planned way since highly levered company creates more financial obligations that lie beyond the firm's capacity to meet, whereas a low-levered company infuses operational lethargy so as to bypass responsibilities resulting to poor performance.

2.3.2 Review of Past Theses

This section includes review of past studies carried out by scholars and students on capital structure related matters.

Adhikari (1991), conducted an empirical study on "*The Effect of Capital Structure on the Cost of Capital".* In his study, he applied the Modigliani-Miller propositions in the Nepalese context. He selected five listed financial institutions to examine their capital structures and cost of capital resulted out of them.

He used simple as well as multiple regression equation to test the relationship between cost of capital and capital structure along with other exploratory variables. The multiple regression equation used in his study is:

$$Ko = a + b1L1 + b2logS + b3G + b4D/P + b5E/V + b6liq$$

Where,

Ko = Average cost of capital

L1 = Leverage 1

S = Size of the company

G = Growth

D/P = Dividend payout ratio

E/V = Earning Variability

Liq = Liquidity

The result of his study shows that the cost of capital is the function of leverage. As concluded by the Traditional Approach of capital structure theories, he demonstrates that the value of the firm can be maximized or overall cost of capital can be minimized through proper mix of debt and equity capital.

Khatri (1998), conducted *a "research on capital and the cost of capital"*. The main objective of his study was to test the relationship between cost of capital & capital structure, and between cost of equity & capital structure.

He chose four banks & finance companies, and eight manufacturing & trading companies. His study was based on five-year data and used simple as well as multiple regression and t-test to analyse above-mentioned relationships.

He found that regression coefficient of leverage against cost of capital was negative on manufacturing & trading sector, whereas the same was found positive in case of banking & finance sector. In addition, t-value showed the beta coefficients were not significant in both sectors. He also concluded that capital structure composition of the companies were confusing and did not result out of planned and objective decisions.

Sherpa (2001), in his dissertation titled *"Corporate Information Disclosure and Its Effect on Share Price",* Sherpa's primary objective was to obtain an insight on corporate

information disclosure with special reference to Nepalese stock market and its listed companies. The following specific objectives were set to obtain the mentioned objective.

a) To highlight the corporate disclosure practice in Nepal
b) To identify the extent of disclosure of each of the item of information and to develop the information disclosure index
c) To check the quality of corporate information disclosure of Nepalese listed companies measured using criteria such as asset size, number of shares outstanding, and earning margin
d) To examine the relationship between corporate information disclosure and stock prices

Sherpa constructed an Information Disclosure Index for which he specified 59 informational items and classified them according to their importance and calculated the mean value after the collection of primary data. He, thereafter, selected 33 listed companies, used their annual reports and calculated disclosure scores. He used various statistical tools like regression analysis, correlations etc. to attain the mentioned objective.

From the detailed analysis, he found that most of the companies did not disclose adequate and qualitative information in their annual reports. Most of the selected companies only disclosed financial information that is statutorily required. Furthermore, he found positive relationship between disclosure indices and variables like earning margin, asset size etc. The important finding of his research is that there is positive relationship between market price of share and disclosure score as the companies having greater disclosure score had the higher prices of stock.

Lamsal (2002), completed his Master Degree dissertation on *"The Impact of Information on Share Price".* His analysis sought to gain knowledge on how well share prices absorb information in the Nepalese capital market and how the investors react to the information disseminated to the capital market. Further, he attempted to determine the relationship between return on earnings (ROE), dividend per share (DPS) and share price. In his

study, he assessed the impact of dividend declaration on share price; the effect of EPS on share price; the impact of ROE on share price; the impact of NRB's directives on share price.

Having chosen some Nepalese commercial banks as sample and used analytical tools such as mean, regression analysis, correlation and paired t-test, he found significant difference in the mean share price immediately after dividend declaration. However, no specific pattern or trend of the change in share price could be established. Macro-economic variables, for example, NRB's directives, led to changes in share price. His study found no significant effect of EPS, DPS & ROE on market price of shares of sampled companies.

Chaulagai (2009), carried out his Master Degree dissertation on "*Financial Signaling due to Changes in Capital Structure"*. His study analyses the nature of signals or impact caused by debenture issues and rights issues on the MPS and EPS of the issuing companies. The two criteria to measure the type of signals, as he chose, were MPS and EPS before and after debenture issues and rights issues. The main objective of the study, as explained by him, was to ascertain the financial signals emitted by debt-financing (debenture issues) and equity-financing (rights issues) based on the analyses of MPS and EPS before and after debenture and rights issues by the sampled companies. His study, based on secondary as well as primary data, concludes that debt-financing sends positive signals to the capital market whereas equity issues (rights issues) do send negative signals in case of EPS being the signaling criterion.

In his study, 10 out of 12 companies' MPS increased significantly after debenture issues as proved by t-statistics (Hypothesis Testing: $t_{calculated} = 2.24047 > t_{tabulated} = 1.796$). The fact that MPS after debenture issues being significantly greater than the MPS before debenture issue suggests that debenture issues (debt-financing) send positive signals to the capital market. In EPS analysis, in 6 out of 7 sample cases, the companies which issued debenture saw substantial growths in their respective EPS. This bolsters the theoretical viewpoint of financial signaling on capital structure issues, which associates debt financing of a firm with its greater profitability stating that companies with

favourable prospects or high future profitability choose debt-financing. In cases of equity issues, he found out that only 2 out of 10 companies' MPS was lower than their respective theoretical prices, which does not conform to the theory of Financial Signaling. However, the difference between Theoretical Values and actual MPS is not significant as proved by Hypothesis Testing ($t_{calculated} = 1.4946 < t_{tabulated} = 2.262$) which can not be categorically associated with any types of signals. In EPS analyses, The considerable plunges in the EPS of 3 out of the 5 sample cases of rights issue indicated that firms tended to make rights issues in the wake of declining profitability. It also emphasized the theoretical concept of financial signaling on capital structure issues, which states firms with unfavorable earning prospects choose equity financing thereby bringing in new shareholders/investors to share the losses.

2.4 Research Gap

Unlike the studies carried out by foreign scholars, most of the studies on capital structure in Nepal concentrate on examining the relationship between capital structure and cost of capital. We can find little as far as studies on financial signaling due to capital structure changes is concerned. This study, therefore, attempts to identify the financial signals that are emitted to the capital market following debt-financing (debenture issues) and equity-financing (rights issues). Besides, the link of these two financing means with the profitability of issuing firms is analysed.

CHAPTER - III
RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with the description and presentation of methods used to analyse and interpret the collected data to achieve the objective of the research work. It explains the research design, population and sample, rationale of sampling, sources of data, data analysis tools and techniques.

The mainly consists of descriptive approach and statistical tools which help to analyse the qualitative phenomena and to analyze numerical facts and figures respectively.

3.2 Research Design

The primary objective of this research work is to analyze the financial signals emitted by debt-financing and equity-financing in Nepalese capital market. The financials signals are ascertained through the analysis of share price movement (MPS analysis) and profitability scenario (EPS analysis) before and after debt and equity issues by sampled companies. Increase in share price and earning after the use of a particular source of financing is tantamount to positive financial signals while decrease in share price and earning refers to negative financial signals. This study uses analytical as well as descriptive approaches to meet research objectives. With the help of analytical approach, secondary data have been analysed to find out the financial signals caused by debt-financing and equity-financing. On the other hand, descriptive approach is adopted to analyze primary data obtained through questionnaire and interview.

3.3 Population and Sample

Population or universe refers to the entire group of people, events, or things of interest that the researcher wishes to investigate whereas a sample is the collection of items from population or universe and comprises some observations selected from the population. In most of the cases, we cannot collect data of whole population. Sampling method is therefore used as the scientific procedure of selection of those representative units which

would provide the required elements inherent in the population with associated margin of uncertainty arising from examining only a part and not the whole.

In case of debt-financing, there have been 16 debenture issues by the end of the FY 2007/08. Out of the 16 cases of debenture issue, 12 debenture issues by 8 companies (commercial banks) have been taken as sample. In case of equity financing, there have, by the end of FY 2007/08, been 102 cases of right issues out of which 10 companies have been chosen as sample companies.

Table 3.1

Names of Sample Companies

1.	Sample companies for debt-financing (debenture issues): i. Himalayan Bank Limited (HBL) ii. Nepal Investment Bank Limited (NIBL) iii. Everest Bank Limited (EBL) iv. Bank of Kathmandu (BOK) Limited v. Nepal Industrial & Commercial Bank (NIC Bank) Limited vi. Nepal SBI Bank Limited (Nepal SBI) vii. Kumari Bank Limited (KBL) viii. Nabil Bank Limited (Nabil)
2.	Sample companies for equity-financing (rights issues): i. Kumari Bank Limited (KBL) ii. Machhapuchhre Bank Limited (MBL) iii. Lumbini Bank Limited (LUBL) iv. Annapurna Finance Company Limited (AFCL) v. Laxmi Bank Limited (LBL) vi. Kist Merchant Banking & Finance Limited (KMBFL) vii. Siddhartha Bank Limited (SBL) viii. NMB Bank Limited (NMB Bank) ix. Nepal Investment Bank Limited (NIBL) x. Gurkha Development Bank Limited (GDBL) xi. Everest Bank Limited (EBL) xii. Bank of Kathmandu (BOK) Limited xiii. Nepal SBI Bank Limited (Nepal SBI) xiv. Development Credit Bank Limited (DCBL)

3.3.1 Rationale of Sampling

In case of secondary data collection, 8 companies which issued debenture and whose share prices could be accessible were chosen as sample companies while 14 companies were randomly chosen for rights-issue analysis. In case of primary data collection, companies, investors, and regulatory authorities available in Kathmandu valley were taken into consideration as sample.

3.4 Sources of Data

Data are considered as an integral part or ingredient of any research work. Required data for this study is collected from both primary as well as secondary sources. The study, however, is mainly based on secondary source of data collection as secondary data heavily feature in it. Secondary data are collected from sources such as SEBON, Annual Reports of respective companies, NEPSE reports etc. Besides, the data have been collected from sources like newspapers, magazines, published and unpublished reports, and journals etc. The share prices are retraced from NEPSE's website (nepalstock.com.np). Information, at times, was received directly from concerned companies.

The following methods have been used to collect primary data.

a. Questionnaire Method

Questionnaire method helps in receiving first hand and reliable information about debenture issue and right issue. The questionnaire was designed to get three kinds of responses.

i. Yes/No Answer
ii. Multiple Choice Answers
iii. Descriptive Answer

In an attempt to elicit the answers to the questions confronted during the due course of research, a total of 75 set of questionnaires were dispatched to managers and officers of various debenture-issuing and right-issuing companies representing different sectors. Out

of the 75 questionnaire sets, 72 responses have been obtained. The table below shows the sample and response of the primary source of data. *(Refer annex-5 for questionnaire)*

Table 3.2

Collection of Responses for Primary Data

S. No.	Respondents	Sample	Response
1.	Officers of debenture & rights issuing companies:		
	a. Commercial Banks	15	15
	b. Finance Companies	10	10
	c. Insurance Companies	2	2
	d. Manufacturing & Processing Companies	4	3
2.	Officers of Issue-managing companies:		
	a. NIDC	3	2
	b. Ace Development Bank	3	3
	c. CIT	3	3
3.	Officers of regulatory bodies:		
	a. SEBON	3	2
	b. Nepse	3	3
	c. NRB	1	1
4.	Investors and experts:		
	a. Investors	24	24
	b. Experts	4	4
	Total (72/75 = 96%)	75	72

b. Interview Method

Interviews with financial managers of debt-issuing and right-issuing companies, experts, and investors were taken. The interviews basically focused on pros and cons of debt and equity (right) issues, their signals in the capital market, etc.

3.5 Coverage of Data

Basically, this study covers those companies whose shares are traded in NEPSE which started trading in January 1994. The study covers the data from FY 1997/98 to FY 2007/08 in case of debt-financing. In case of equity (right share) financing, a 10-year time period from FY 1998/99 to FY 2007/08 has been taken into consideration. The research throws light on debenture and right issue practices, financial signals emitted by debenture and right share issues, share price movement after debenture and right issues, and whether the variations in price is significant etc.

3.6 Data Analysis Tools and Techniques

Raw data alone convey little information and meaning and must, therefore, be compiled, analysed, and interpreted using different data analysis tools. The study has used the mix of statistical tools from simple percentage analysis to the hypothesis testing tools as per the requirements and their suitability. The purpose of these statistical tools is to find out realistic and logical results in accordance with the objectives of the study.

In this study, analytical tools such as simple percentage analysis and hypothesis test (paired t-statistic) are used to ascertain and evaluate the financial signals caused by debt-financing (debenture issues) and equity financing (rights issues).

3.6.1 Analytical Tools used in case of Debt (Debenture) Issues

3.6.1.1 Percentage Change in Share Price

Percentage change in share price provides the deviations in share prices due to debenture issue. The positive percentage change in price indicates that the price of the stock after debenture issue is greater than the price of the stock before debenture issue. In other words, the positive change reflects an increase in the MPS of the debt-issuing firm after the debt issue. In the contrary, the negative percentage change in price indicates that the price of the stock after debenture issue is less than the price of the stock before debenture issue. In other words, the negative change reflects a decrease in the MPS of the debt-issuing firm after the debt issue.

$$\text{Change in price (\%)} = \frac{\text{MPS after debenture issue- MPS before debenture issue}}{\text{MPS before debenture issue}} \times 100$$

3.6.1.2 Percentage Change in 3-year Average EPS

Percentage change EPS presents the deviations in earnings of the firm before and after debenture issue. The positive percentage change 3-year average EPS indicates that earning per share in the three years after debenture issue is greater than the earning per share in the three years before debenture issue. In other words, the positive change reflects an increase in the EPS of the debt-issuing firm after the debt issue. In the contrary, the negative percentage change in the 3-year average EPS indicates that the

earning per share in the three years after debenture issue is less than the earning per share in the three years prior to debenture issue. In other words, the negative change reflects a decrease in the EPS of the debt-issuing firm after the debt issue.

$$Change\ in\ Av.EPS(\%) = \frac{\text{Av.EPS after debt issue} - \text{Av.EPS before debt issue}}{\text{Average EPS before debt issue}} \times 100$$

3.6.1.3 Testing of Hypothesis (paired t-statistic) on Difference of MPS before and after Debenture Issue

Through the use of t-statistics, it is attempted to ascertain with the use of hypothesis testing hereby whether the MPS of sampled debt-issuing firms have increased significantly.

Null Hypothesis (H_0): $\mu_x = \mu_y$, i.e. there is no significant difference between the MPS before debenture issue and the MPS after debenture issue. In other words, there is no increase in MPS after debenture issue.

Alternative Hypothesis (H_1): $\mu_x < \mu_y$ (left-tailed test), i.e. there is significant difference between the MPS before debenture issue and the MPS after debenture issue. In other words, the MPS after debenture is significantly greater than the MPS before debenture issue.

Test Statistic

$$t = \frac{\bar{d}}{Sd/\sqrt{n}} \quad \sim t_{n-1}$$

Where,

$\bar{d} = \text{Mean of the difference}$

$= \frac{\sum d}{n}$

Sd = Sample standard deviation of difference

$$= \sqrt{\frac{1}{n-1} \times \sum (d - \bar{d})^2}$$

d = x-y, difference between MPS before debenture issue (x) and MPS after debenture issue (y)

n = Number of observation (sample companies)

3.6.2 Analytical Tools used in case of Equity (Right Share) Issues

3.6.2.1 Percentage Change in MPS

Percentage change in share price provides the deviations in share prices due to right issue. The negative percentage change in MPS reflects a decrease in the MPS of the right-issuing firm after the right issue. In other words, the negative change in price indicates that the price of the stock after right issue is less than the price of the stock before right issue. In the contrary, the positive change in price indicates that the price of the stock after right issue is greater than the price of the stock before right issue. In other words, the positive change reflects an increase in the MPS of the right share-issuing firm after the right issue.

$$Change\ in\ Price\ (\%) = \frac{Post\ right\ Issue\ Price - Pre\ right\ Issue\ Price}{Pre\ right\ Issue\ Price} \times 100$$

3.6.2.2 Percentage Change in Actual MPS and Theoretical Price

It provides the deviation of actual MPS from the theoretical price of the stock after rights issue. If the actual market price per share is found to be higher than the theoretical market price per share, it is then the case of positive change in share price. In other words, the case of actual MPS higher than the theoretical price indicates of the positive signals emitted by the rights offering. On the other hand, if the actual market price per share is found to be lower than the theoretical market price per share, it is the case of negative change or decrease in share price.

$$Percentage\ change\ in\ price = \frac{Actual\ Price - Theoritical\ Price}{Theoretical\ Price} \times 100$$

3.6.2.3 Percentage Change in 3-year Average EPS

Percentage change EPS presents the deviations in earnings of the firm before and after rights issue. The positive percentage change 3-year average EPS indicates that earning per share in the three years after rights issue is greater than the earning per share in the three years before rights issue. In other words, the positive change reflects an increase in the EPS of the debt-issuing firm after the equity (rights) issue. In the contrary, the negative percentage change in the 3-year average EPS indicates that the earning per share

in the three years after rights issue is less than the earning per share in the three years prior to rights issue. In other words, the negative change reflects a decrease in the EPS of the debt-issuing firm after the equity issue.

$$Change\ in\ Average\ EPS\ (\%) = \frac{\text{Post rights issue Average EPS} - \text{Pre rights issue Average EPS}}{\text{Pre rights issue Average EPS}} \times 100$$

3.6.2.4 Testing of Hypothesis (Use of t-statistics)

Through the use of t-statistics, it is attempted to ascertain with the use of hypothesis testing whether the MPS of sampled rights-issuing firms differ significantly with the respective theoretical prices.

Null Hypothesis (H_0): $\mu_x = \mu_y$, i.e. there is no significant difference between the actual MPS and the theoretical price after the rights issue. That means the actual MPS after the right issue and theoretical price are the same.

Alternative Hypothesis, H_1: $\mu_x \neq \mu_y$ (two-tailed test) i.e. there is significant difference between the actual MPS and the theoretical price after the rights issue. That means the actual MPS after the rights issue and theoretical price are not the same.

Test Statistic:

$$t = \frac{\bar{d}}{Sd/\sqrt{n}} \quad \sim t_{n-1}$$

Where,

$$\bar{d} = \text{Mean of the difference}$$

$$= \frac{\sum d}{n}$$

Sd = Sample standard deviation of difference

$$= \sqrt{\frac{1}{n-1} \times \sum (d - \bar{d})^2}$$

d = x-y, difference between MPS before rights issue (x) and MPS after rights issue (y)

n = Number of observation (sample companies)

3.6.2.5 Calculation of Theoretical Price of Stock

Since right is a negotiable instrument, it has a certain value for sale. After announcement of right, it is attached with the stock till ex-right date after which the right no longer goes to the stock. Hence, the market price theoretically decline by the amount of value of each right after the stock goes ex-right since the investors of ex-right stock are no longer entitled to the right offered. Ex-right price, also called theoretical price of stock, is, therefore, obtained by deducting the value of each right from the right-on price of the stock.

Theoretical Price of Stock, $P_e = \frac{P \times \# + P^S}{\# + 1}$

Where,

P_e = Theoretical (ex-rights) value of stock

P_0 = Rights-on price

P^s = Subscription price

\# = Number of rights required to purchase a new share of stock

CHAPTER - IV
DATA PRESENTATION AND ANALYSIS

This chapter includes the presentation, analysis and interpretation of data collected from primary and secondary sources. The analysis and interpretation of presented data aim to fulfill the objective of the study by elucidating how capital structure decisions on debt or equity financing emit signals to the capital market in Nepalese context. The study relies on data obtained from secondary sources which include publications of SEBON, NEPSE, and annual reports of sampled companies. Data thus availed have been analyzed and interpreted using the tools and techniques according to the research methodology as mentioned in the third chapter. Primary sources include personal interview and questionnaire responses.

In order to examine the issue of financial signaling resulted by debt-financing and equity financing, we present, analyze, and interpret data under two main headings.

4.1 Debt-financing (debenture issue) and its signals to the capital market

4.2 Equity-financing (rights issue) and its signals to the capital market

4.1 Debt-financing and its Signals to the Capital Market

The theoretical concept of financial signaling suggests that debt issues are regarded as "good news" and send a positive signal to the capital market. Since increased leverage is associated with higher probability of bankruptcy upon which the manager would be penalized, the investors conclude that the firm's stock is undervalued and things really are better than the stock price reflects. In addition, debt issues are associated with higher profitability and an increase in EPS in future. A company having a highly profitable project at hand would like to finance it through debt which demands a fixed payment, without requiring the company to distribute the entire profit among the debtholders. Profit earned after meeting the fixed charges related to debt goes to the company's already existing shareholders including the managers. Firms with very favorable prospects try to avoid selling stock and, rather, to raise any required new capital by other

means, including using debt beyond the normal target capital structure. Such positive signals associated with debt issues are supposed to cause an increase in MPS of the debt-issuing entity.

4.1.1 Corporate Debenture Issue practice in Nepalese Capital Market

In Nepalese context, only a few corporate bodies have issued debentures to meet their long-term fund requirements. By the end of the year FY 2007/08, 16 debenture issues have been made, mostly by commercial banks. Bottlers Nepal Ltd., Jyoti Spinning Mills Ltd., Shree Ram Sugar Mills Ltd., Himalayan Bank Ltd. (two times), Everest Bank Ltd., Bank of Kathmandu Ltd., Nepal Investment Bank Ltd. (four times), Nepal Industrial and Commercial Bank Ltd., Nepal SBI Bank Ltd., Nepal Electricity Authority, Kumari Bank Ltd., Nabil Bank Ltd., are the corporate bodies which issued debenture in and before FY 2007/08.

Nepalese capital market saw the first issue of debenture two decades ago. Bottlers Nepal Ltd (BNL) issued 18% debenture of Rs. 5 million in the fiscal year 1986/87. It was over-subscribed (Rs. 5.13 million) and redeemable at maturity. The debentures have already been matured. Jyoti bond was issued by Jyoti Spinning Mills Ltd (JPML)in 1992/93. The amount of the issue was Rs. 20 million bearing 20% coupon interest.

The primary issue of bonds then vanished for 5 years. In the FY 1997/98, Shree Ram Sugar Mills Limited (SRSML) issued "14% convertible and redeemable bond" with 4 years to maturity. The issue amounted to Rs. 93 million and was undersubscribed (Rs. 17.13 million). NIDC managed the issue at 0.50% of total collected amount as flotation cost. Unfortunately, it was heavily undersubscribed. The debentures were redeemed in the FY 2001/02.

Himalayan Bank Limited (HBL) became the pioneer bank to issue debenture from banking sector. In FY 2001/02, it issued "8.5% Himalayan Bank Limited Bond 2066 B.S.". Out of the total Rs. 360 million debenture issue, the bank distributed debenture worth Rs. 260 million was privately placed whereas issue amounting to Rs. 100 million

was made public offering. NMB managed the issue of the 7-year maturity debentures at 0.54% flotation cost.

Nepal Investment Bank Limited (NIBL) came as second commercial bank to issue corporate debenture. NIBL issued "Nepal Investment Bank Bond 2067 B.S." amounting Rs. 300 million (Rs. 200 million private placement and Rs. 100 million in form of public offering) in FY 2003/04. Bearing 7.5% semi-annual coupon interest, the redeemable bond had 7-year maturity period.

Everest Bank Limited issued bonds amounting to Rs. 300 million (Rs 250 million private placement and Rs. 50 million in form of public offering) in 2004/05. The 6% semiannual coupon bond had 7-year maturity period. Citizen Investment Trust (CIT) managed the issue of the unsecured bond.

In FY 2005/06, Bank of Kathmandu (BOK) Limited issued debenture amounting to Rs. 200 million (Rs. 150 million private placement and Rs. 50 million public offering). The 6% coupon (semiannual interest payment) was managed by NMB and highly oversubscribed. Unsecured in nature, the bond had 7-year maturity period.
In FY 2005/06, Nepal Investment Bank Limited (NIBL) made second debenture issue in its history. The issue amounted to Rs. 250 million (Rs. 170 million as private placement and Rs. 80 million as public offering). The 6% (semiannual interest payment) bond had 7-year maturity period.

In FY 2005/06, Nepal Industrial & Commercial Bank Limited (NIC Bank) issued debenture worth Rs. 200 million (Rs. 150 million private placement and Rs. 100 million public offering). The 6% (semiannual interest payment) bond had 7-year maturity period.

As the third (after NIBL and NIC Bank) debenture issue within one month's period, Nepal SBI Bank Limited issued debenture worth Rs. 200 million (Rs. 150 million private placement and Rs. 50 million as public offering) in FY 2005/06. The 6% (semiannual interest payment) bond had 7-year maturity period.

In FY 2006/07, Nepal Investment Bank Limited (NIBL) issued debenture worth Rs. 250 million (Rs. 200 million private placement and Rs. 50 million as public placement). The 6.25% coupon (semiannual interest payment) bond had 7-year maturity period.

Nepal Electricity Authority (NEA) issued the largest ever debenture issue in Nepal's capital market in FY 2007/08. It issued debenture amounting to Rs. 1500 million (Rs. 1350 million privately placed and Rs. 150 million as public offering). The debenture offered 7.75% annual coupon interest during its 5-year maturity period.

In FY 2007/08, Kumari Bank Limited (KBL) issued debenture amounting to Rs. 400 million (Rs. 320 million privately placed and Rs. 80 million as public offering). The bond, with the maturity period of 5 years, offered 7.75% coupon interest.

In its second issue of debenture, Himalayan Bank Limited (HBL) issued Rs. 500 million (Rs. 400 million privately placed and Rs. 100 million as public offering) worth of corporate bond in FY 2007/08. Maturity period spanning to 7 years, the bond offered 8% coupon interest.

Introducing itself as the most debenture-friendly corporate house, Nepal Investment Bank Limited (NIBL) made its fourth debenture issue in FY 2007/08. The issue amounted to Rs. 250 million (Rs 200 million privately placed and Rs. 50 million in form of public offering). It offered 8% coupon interest and had 7-year maturity period.

Despite being the first joint-venture commercial bank of Nepal, Nabil Bank Limited made its first debenture issue in FY 2007/08. It issued bond worth Rs. 300 million (Rs. 240 million privately placed and Rs. 60 million in form of public offering). The issue offered 8.5% coupon interest during the maturity period of 10 years *(Refer Annex-1)*.

4.1.2 Issue of Corporate Debenture with respect to Other Securities

The major sources of long-term financing for corporate houses are debentures, preference share, and ordinary share. Nepalese capital market is hugely dominated by equity component consisting of ordinary share and rights share.

Although the manufacturing industries such as Bottlers Nepal Ltd., Jyoti Spinning Mills and Shree Ram Sugar Mills Ltd (SRSML) started the practice of debenture issue in Nepalese capital market's history, commercial banks have given the continuity to the trend by choosing debt-financing in recent years. The debenture issued by SRSML, the last company to issue debenture, was highly undersubscribed with just Rs. 17.13 million (out of Rs. 93 million). After the SRSML fiasco in 1997/98, no more manufacturing sector has issued debenture. Banking sector, however, has adopted bond-financing in the following years.

Table 4.1

Amount of Debt and Equity Issue

(Rs. In Million**)**

Fiscal Year	Amount of Debt (debenture) Issue	Amount of Equity (ordinary and rights) Issue
1997/98	93	369.36
1998/99	0	178
1999/00	0	326.86
2000/01	0	410.49
2001/02	360	941.33
2002/03	0	556.54
2003/04	300	727.50
2004/05	300	1326.78
2005/06	850	1593.28
2006/07	250	1645.60
2007/08	2950	7011.90

Source: SEBON Annual Report 2007/08

Figure 4.1

Issue of Debt and Equity

In FY 1997/98, SRSML issued debenture worth Rs. 93 million. Equity issue amounted to Rs. 369.36 million with ordinary share of Rs. 119.40 million and rights share worth Rs. 249.96 million. In FY 1998/99, no corporate house made debenture issue while ordinary share worth Rs 148 million and rights share worth Rs. 30 million was issued, making the equity issue worth Rs. 178 million in the year. Preferred stock worth Rs. 80 million was issued in the same year. In FY 1999/2000, debenture issue amounted to nil while equity issue amounted to Rs. 328.86 million with ordinary share of Rs. 202.26 million and rights share worth Rs. 124.60 million. In FY 2000/01, debenture issue amounted to nil while equity issue amounted to Rs. 410.49 million with ordinary share of Rs. 278.70 million and rights share worth Rs. 131.79 million.

A new phase of corporate debenture issue began in FY 2001/02 when HBL issued debenture worth Rs. 360 million. Equity issue amounted to Rs. 941.33 million which consisted of Rs. 319.46 million of ordinary shares and Rs. 621.87 million of rightss share. In the same year, preferred stock worth Rs. 140 million was issued as well. In FY 2002/03, debenture issue amounted to nil while equity issue amounted to Rs. 556.54 million which consisted of ordinary share worth Rs. 394.30 million and rights share worth Rs. 162.24 million. In FY 2003/04, NIBL issued debenture worth Rs. 300 million while equity issue in the year amounted to Rs. 727.50 million which consisted of ordinary share worth Rs. 657.50 million and rights share worth Rs. 70 million. In FY 2004/05, EBL issued debenture worth Rs. 300 million. Total equity issue in the year amounted to Rs. 1326.82 million which consisted of ordinary share issue worth Rs. 377.48 million and rights share issue worth Rs. 949.34 million.

Four commercial banks issued debentures amounting to Rs. 850 million in FY 2005/06. BOK, NIBL, NIC Bank, and Nepal SBI Bank Ltd. Issued debenture worth Rs. 200 million, Rs. 250 million, Rs. 200 million, and Rs. 200 million respectively. Total equity issue in the year amounted to Rs. 1593.28 million which consisted of ordinary share worth Rs. 579.83 million and rights share issue worth Rs. 1013.45 million. In FY 2006/07, NIBL made its third debenture issue amounting to Rs. 250 million. Total equity issue in the year amounted to Rs. 1645.60 million which consisted of ordinary issue worth Rs. 380.30 million and rights issue worth Rs. 1265.30 million. EBL issued convertible preferred stock worth Rs. 400 million in the same year. In FY 2007/08, five corporate houses issued debenture worth Rs. 2950 million. NEA made largest ever corporate debenture issue worth Rs. 1500 million. KBL and Nabil made debenture issue for the first time with issue amounts of Rs. 400 million and Rs. 300 million respectively. HBL's debenture issue amounted to Rs. 500 million while NIBL made its fourth debenture issue worth Rs. 250 million in the same fiscal year.

Table 4.2

Amount of Debenture Issue in Comparison to Amount of Total Issue of Securities (FY1997/98-2007/08)

(Rs. in million**)**

Fiscal Year	No. of Debenture Issue	Amount of Debt	Cumulative amount of debt	Total No. of issues	Amount of total issue	Cumulative amount of total issue	% of debt on total issue
1997/98	1	93	93	12	462.36	462.36	20.11
1998/99	0	0	93	5	258	720.36	12.91
1999/00	0	0	93	6	326.86	1047.22	9.45
2000/01	0	0	93	9	410.49	1457.71	6.38
2001/02	1	360	453	12	1441.33	2899.04	15.62
2002/03	0	0	453	18	556.54	3455.58	13.11
2003/04	1	300	753	14	1027.50	4483.08	16.80
2004/05	1	300	1053	14	1626.82	6109.90	17.23
2005/06	4	850	1903	29	2443.28	8553.18	22.25
2006/07	1	250	2153	34	2295.60	10848.78	19.85
2007/08	5	2950	5103	63	9961.90	20810.68	24.52

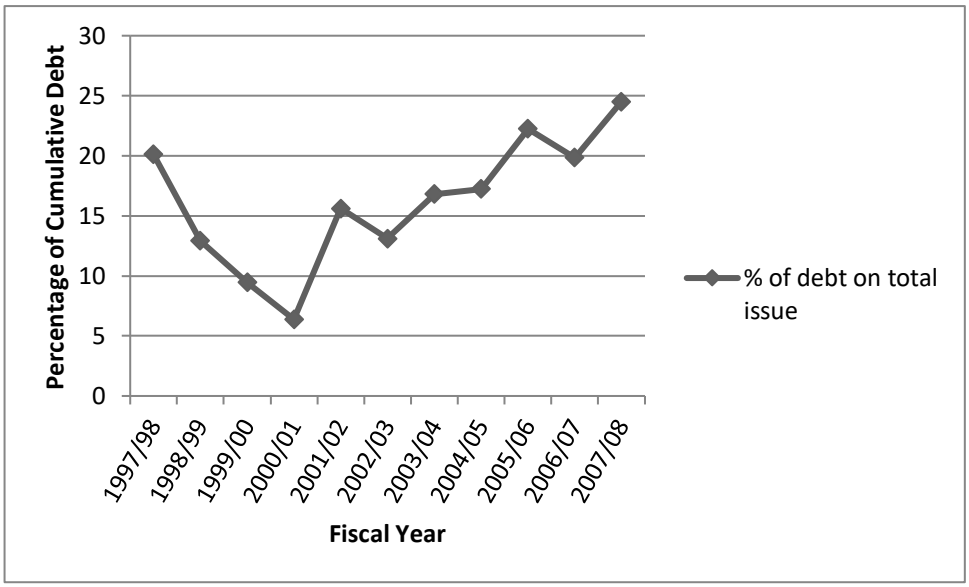
Total	**13**	**5103**	**-**	**216**	**20810.68**	**-**	**24.52**

Source: Annual report of SEBON (2007 &2008)

The above table shows that Nepalese corporate bodies used debt-financing worth Rs. 5103 million during the 10-year period from FY 1997/98 to FY 2007/08. The percentage of corporate debt amount out of total corporate securities issue amount was 20.11% in FY 1997/98 after the SRSML bond worth Rs. 93 million. The percentage of cumulative amount of debt out of the cumulative amount of total issue of securities decreased to 6.38% before HBL became the pioneer commercial bank to issue debenture worth Rs. 360 million in FY 2001/02.The percentage of cumulative amount of debt out of the cumulative amount of total issue of securities was 22.25% in FY 2005/06 when four commercial banks issued debenture worth Rs. 850 million. The highest amount of debenture issue i.e. Rs. 2950 million was made in FY 2007/08 and the percentage of cumulative amount of debt to the cumulative amount of total issue of securities, too, is maximum at 24.52%. It is because the amount of equity issue is unusually high in FY 2007/08, thanks to the huge amount of rights share issues by corporate houses and the largest ever amount of debenture issued by NEA.

Figure 4.2

Percentage of cumulative amount of debt out of the cumulative amount of total securities



As shown in the table above, percentage of cumulative amount of debt is 6.38% at minimum and 24.52% at maximum out of the cumulative amount of total issue of securities. Cumulative amount of debt represented only 24.52% of the cumulative amount of total issue at the end of FY 2007/08. Percentage of cumulative debt on total issue of securities was 20.11% in FY 1997/98, 12.91% in FY 1998/99, 9.45% in FY 1999/00, 6.38% in FY 2000/01, 15.62% in FY 2001/02, 13.11 in FY 2002/03, 16.80% in FY 2003/04, 17.23% in FY 2004/05, 22.25% in FY 2005/06, 19.85% in FY 2006/07, and 24.52% in FY 2007/08. This shows that debt financing occupies only a quarter of the total amount of securities issued in Nepal's capital market, and that equity financing is more popular than debt financing. Equity has been extensively used as the means of financing.

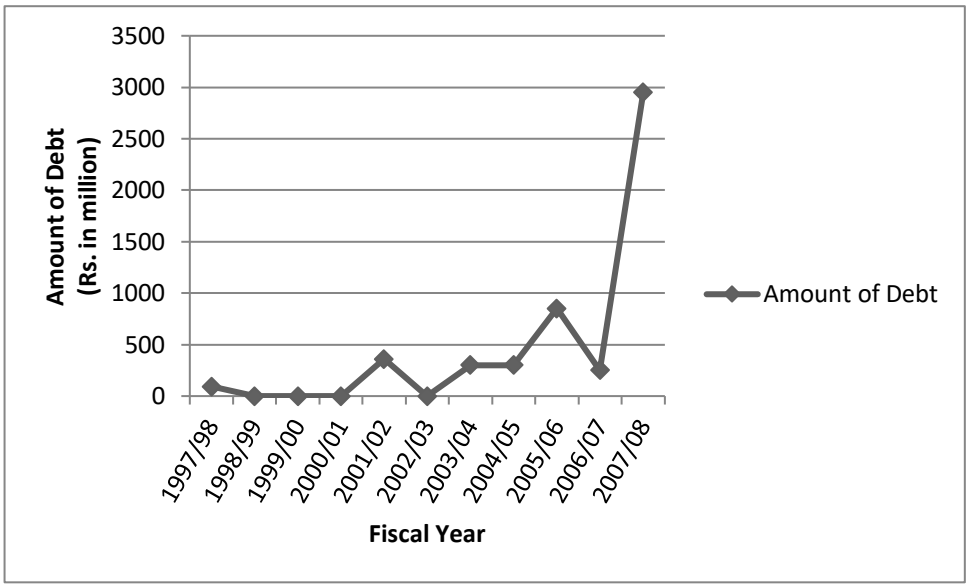
4.1.3 Changing Trend of Debenture Issue

Bottlers Nepal Ltd issued debenture worth Rs. 5 million in 1986/87. Jyoti Spinning Mills issued debenture amounting to Rs. 20 million in 1992/93. SRSML issued debenture worth Rs. 93 million in 1997/98. HBL issued debenture worth Rs. 360 million in FY 2001/02.

NIBL issued debenture worth Rs. 300 million in FY 2003/04. EBL issued debenture which amounted to Rs. 300 million in FY 2004/05. In FY 2005/06, a total of Rs. 850 million worth debenture was issued as BOK issued debenture worth Rs. 200 million; NIBL issued debenture worth Rs. 250 million; NIC BANK issued debenture worth Rs. 200 million; and Nepal SBI Bank issued debenture worth Rs. 200 million. NIBL issued debenture worth Rs. 250 million in 2006/07. In FY 2007/08, a total of Rs. 2950 million worth debenture was issued as NEA issued debenture worth Rs. 1500 million; KBL issued debenture worth Rs. 400 million; HBL issued debenture worth Rs. 500 million; Nabil Bank issued debenture amounting to Rs. 300 million and NIBL issued debenture worth Rs. 250 million.

Figure 4.3

Changing Trend of debenture Issue



The above figure shows that Nepalese corporate houses are yet to regard debt-financing in a more regular manner. Irregular fluctuations are the key feature as far as time-gap and issue amount of debenture issues are concerned. After SRSML got poor response to is debenture issue in FY 1997/98, no more manufacturing companies have, so far, come up with debenture issue. Commercial banks embraced debt-financing more regularly after HBL's debenture issue in FY 2001/02. Although there was no debenture issue in FY 2002/03, there have been debenture issues in all the following years, thanks to commercial banks' affinity with debt-financing.

4.1.4 Comparison of Stock Price before and after Debenture Issue

According to the theoretical concept of financial signaling, debt issues are regarded as "good news" and send a positive signal to the capital market. Since increased leverage is associated with higher probability of bankruptcy upon which the manager would be penalized, the investors conclude that the firm's stock is undervalued and things really are better than the stock price reflects. In addition, debt issues are associated with higher profitability and an increase in EPS in future. Such positive signals emitted by debt issues are supposed to cause an increase in MPS of the debt-issuing entity.

The table below presents the market price of stock (MPS) of sampled debenture-issuing companies before and after the debenture issues. MPS before debenture issue represents closing market price of stock one month prior to the debenture issue whereas MPS after debenture issue represents the closing market price of stock three weeks after the debenture issue.

The positive change in price indicates that the price of the stock after debenture issue is greater than the price of the stock before debenture issue. In other words, the positive change reflects an increase in the MPS of the debt-issuing firm after the debt issue. In the contrary, the negative change in price indicates that the price of the stock after debenture issue is less than the price of the stock before debenture issue. In other words, the negative change reflects a decrease in the MPS of the debt-issuing firm after the debt issue.

The positive change in the price of stock of the debt-issuing firm after debt issue is theoretically coherent phenomenon. In the contrary, the negative change in the price of the stock of debt-issuing firm after debt issue is incoherent phenomenon from theoretical viewpoint.

Table 4.3

MPS of Sample Companies before and after Debenture Issue

S. N.	Sample Companies	MPS before Debenture Issue (Rs.)	MPS after Debenture Issue (Rs.)	Change in Price (Rs.)	Change in Price (%)
1	HBL (1st issue)	1001	940	-61	-6.09
2	NIBL (1st issue)	810	815	5	0.62
3	EBL	776	905	129	16.62
4	BOK	430	475	45	10.47
5	NIBL (2nd issue)	1205	1212	7	0.58
6	NIC Bank	550	500	-50	-9.09
7	Nepal SBI	620	638	18	2.90
8	NIBL (3rd issue)	1170	1500	330	28.21
9	KBL	715	955	240	33.57
10	HBL (2nd issue)	1730	1970	240	13.87
11	NIBL (4th issue)	1788	2640	852	47.65
12	Nabil	5200	6273	1073	20.63

Source: nepalstock.com.np

$$Change\ in\ price\ (\%) = \frac{\text{MPS after debenture issue} - \text{MPS before debenture issue}}{\text{MPS before debenture issue}} \times 100$$

The above table shows that MPS after debenture issue of sampled debenture-issuing companies have increased in most of the cases. Among 12 debenture issue cases, the MPS of 10 such cases have increased after debenture issue. The stock prices showed positive changes after the debenture issues by NIBL (1st issue), EBL, BOK, NIBL (2nd issue), Nepal SBI, NIBL (3rd issue), KBL, HBL (2nd issue), NIBL (4th issue), and Nabil. The two theoretically incoherent results came up in the cases of HBL (1st issue) and NIC Bank with the decreases in MPS after debenture issues. In case of HBL (1st issue), the MPS after debenture issue tumbled down from Rs. 1001 to Rs. 940 (i.e. 6.09% decline)

compared to the MPS before debenture issue. Likewise, the MPS after debenture issue of NIC Bank decreased from Rs. 550 one-month prior to debenture issue to Rs. 550 after three weeks of the issue, thereby registering a decline of 9.09%.

From the minimum positive change of 0.58% in case of NIBL (2nd issue) to the maximum 47.65% in case of NIBL (4th issue), the positive changes in MPS have occurred in varying extents. MPS after debenture issue of NIBL (1st issue) increased from Rs. 810 to Rs. 815, by 0.62%, while the MPS of EBL from Rs. 776 to Rs. 905 with an increase of 16.62%. The MPS of BOK had a positive growth of 10.47% as the MPS after debenture issue increased to Rs. 475 from pre-debenture issue price of Rs. 430. MPS of NIBL, after its second debt issue, had a positive growth of 0.58% as the MPS after debenture issue increased to Rs. 1212 from pre-debenture issue price of Rs. 1207. There was a 2.90% increase in the stock price of Nepal SBI from pre-debenture issue price of Rs. 620 to the post-debenture issue price of Rs. 638. The stock price of NIBL saw a 28.21% growth as its MPS increased from Rs. 1170 to Rs. 1500 after the company's third debenture issue. MPS of KBL, after its debenture issue, had an upward growth of 33.57% as its MPS after debenture issue increased to Rs. 955 from pre-debenture issue price of Rs. 715. The stock price of HBL saw a 13.87 growth as its MPS increased from Rs. 1730 to 1970 after the bank's second debenture issue. After its 4th debenture issue, NIBL's stock saw a huge growth of 47.65% as compared to the MPS prior to the debenture issue. Nabil's MPS after the debenture issue increased by 20.63% as its MPS one-month before the debenture issue was Rs. 5200 which increased to Rs. 6273 three weeks after the debenture issue.

This increase in MPS in 10 out of 12 cases of debenture issue has produced a scenario consistent as well as coherent with theory. With the exceptions in the cases of HBL (1st issue) and NIC Bank, the overall positive changes in the stock prices support the theoretical concept of financial signaling according to which stock prices of debt-issuing firms increase after debt issue due to the positive signal it emits to the capital market.

4.1.5 Comparison of EPS before and after Debenture Issue

The theory of financial signaling relates debt financing of a company with higher profitability of the company in the future. A company having a highly profitable project

at hand would like to finance it through debt which demands a fixed payment, without requiring the company to distribute the entire profit among the debtholders. Profit earned after meeting the fixed charges related to debt goes to the company's already existing shareholders including the managers. Firms with very favorable prospects try to avoid selling stock and, rather, to raise any required new capital by other means, including using debt beyond the normal target capital structure.

The analysis of Earning per Share (EPS) makes one understand the profitability scenario of a firm. The table below presents the 3-year average EPS of sampled debenture-issuing companies before and after the debenture issues. The 3-year average EPS before debenture issue represents the average EPS earned by the debenture-issuing firm during the three years period prior to the debenture issue whereas the 3-year average EPS after debenture issue represents the average EPS earned by the debenture-issuing firm during the three years subsequent to the debenture issue.

The positive change in the EPS indicates that the EPS after debenture issue is greater than the EPS before debenture issue. In other words, the positive change reflects an increase in the EPS of the debt-issuing firm after the debt issue. In the contrary, the negative change in price indicates that the EPS after debenture issue is less than the EPS before debenture issue. In other words, the negative change reflects a decrease in the EPS of the debt-issuing firm after the debt issue.

The positive change in the EPS after debt issue reflects the increased profitability of the debt-issuing entity after debt-financing. Such increased profit following debt-financing is theoretically coherent phenomenon according to the theoretical concept of financial signaling on capital structure issues. In the contrary, the negative change in the EPS of debt-issuing firm after debt issue is incoherent phenomenon from the theoretical viewpoint.

Table 4.4
Comparison of EPS before and after Debenture Issue

Sample Companies	EPS before debenture issue (Rs.)	EPS after debenture issue (Rs.)	Change in EPS (Rs.)	Change in EPS (%)
HBL(1st issue)	87.57	52.92	-34.65	-39.56
NIBL(1st issue)	35.44	50.18	14.74	41.59
EBL	36.14	65.13	28.99	80.22
BOK	24.91	49.04	24.13	96.87
NIBL (2nd issue)	43.59	59.93	16.34	37.49
NIC Bank	13.86	21.95	8.09	58.37
Nepal SBI	13.01	28.65	15.64	120.22

$$Change\ in\ Av.EPS(\%) = \frac{\text{Av.EPS after debt issue} - \text{Av.EPS before debt issue}}{\text{Average EPS before debt issue}} \times 100$$

The above table shows the EPS before debenture issue (3-year average EPS prior to debenture issue), EPS after debenture issue (3-year average EPS subsequent to debenture issue). Among the six companies taken into account for the study purpose, five companies' EPS have risen after debenture issue. The EPS of HBL (1st issue), however, had a decline of 39.56%, from Rs. 87.57 before debenture issue to Rs. 52.92 after debenture issue.

The 3-year average EPS of NIBL (1st issue) was Rs. 35.44 before its first debenture issue in FY 2003/04, which increased to 3-year average of Rs. 50.18 after the debenture issue. Before the debenture issue of EBL in FY 2004/05, its 3-year average EPS was Rs. 36.14 which increased to 3-year average of Rs. 65.13 after the debenture issue. The 3-year average EPS of BOK before its debenture issue in 2005/06 was Rs. 24.91 whereas the 3-year average EPS after the issuance increased to Rs. 49.04. The 3-year average EPS of NIBL (2nd issue) was Rs. 43.59 before the debenture issue, which increased to 3-year average of Rs. 59.93 following the issue. Likewise, the 3-year average EPS of NIC Bank before its debenture issue was Rs. 13.86 which increased to Rs. 21.95 in terms of its value after the debenture issue. The 3-year average EPS of Nepal SBI was Rs. 13.01 before its debenture issue in the same year, which increased to 3-year average of Rs.

28.65 after the issue. In terms of percentage, the 3-year average EPS of NIBL (1st issue), EBL, BOK, NIBL (2nd issue), NIC Bank and Nepal SBI increased after their debenture issues by 41.59%, 80.22%, 96.87%, 37.49%, 58.37%, and 120.22% respectively.

Except in the case of HBL's 1st debenture issue in FY 2001/02, there are considerable increases in the 3-year average EPS after the debenture issues of NIBL (1st issue), BOK, NIBL (2nd issue), NIC Bank and Nepal SBI. The upward surges in the 3-year average EPS range from the minimum of 37.49% in NIBL's EPS after its 2nd debenture issue in FY 2005/06 to the maximum of 120.22% in Nepal SBI Bank's EPS subsequent to its debenture issue in the same year. These substantial growths in the average EPS in 6 out of 7 sample cases of debenture issues bolster the theoretical viewpoint of financial signaling on capital structure issues, which associates debt financing of a firm with its greater profitability stating that companies with favourable prospects or high future profitability choose debt-financing.

4.1.6 Comparison of Debt-Equity Ratio before and after Debenture Issue

The relationship between long term debts and owner's equity is known as Debt-equity ratio. Debt-equity ratio shows the share of financing by the creditors as compared to that of owners. It is a popular measure of the long term financial solvency of a firm.

Higher Debt-equity ratio is considered more risky because it shows that more of the funds invested in the business are provided by outsider. The lower ratio shows that more of the funds invested in the business are provided by the owners.

Table 4.5

Comparison between average Debt-Equity Ratio and EPS

Sample Companies	Before Debenture Issue		After Debenture Issue	
	Average Debt-equity Ratio	Average EPS	Average Debt-equity Ratio	Average EPS
HBL(1st issue)	0	87.57	37.50%	52.92
NIBL(1st issue)	0	35.44	35.14%	50.18
EBL	0	36.14	31.70%	65.13
BOK	0	24.91	19.62%	49.04

NIBL (2nd issue)	22.19%	43.59	40.18%	59.93
NIC Bank	0	13.86	21.07%	21.95
Nepal SBI	0	13.01	17.23%	28.65

$$Debt - equity\ Ratio = \frac{\text{Long Term Debt}}{\text{Shareholder's Equity}}$$

Where,

Shareholder's Equity = Share Capital + Reserve Fund

The above table shows 3-year average Debt-equity ratio and 3-year average EPS before and after debenture issues of seven debenture issues by six sample companies. Apart from HBL's debenture issue case, there is positive relationship between average Debt-equity ratio and average EPS. Although Debt-equity ratio increased from 0 to 37.50%, average EPS declined from Rs. 87.57 to Rs. 52.92.

After NIBL's 1st Debenture issue in FY 2001/02, as 3-year average Debt-equity ratio increased from 0 to 35.14%, 3-year average EPS also increased from Rs. 35.44 to Rs. 50.18. As EBL's average Debt-equity Ratio increased from 0 to 31.70% after its debenture issue in FY 2004/05, its average EPS too increased from Rs. 36.14 to Rs. 65.13. Likewise, BOK's average Debt-equity ratio increased from 0 to 19.62% after its debenture issue in FY 2005/06 along with rise in average EPS from Rs. 24.91 to Rs. 49.01. After NIBL's 2nd Debenture issue in FY 2005/06, its 3-year average Debt-equity ratio increased to 40.18% from pre-debenture issue 22.19% with average EPS going up from Rs. 43.59 to Rs. 59.93. On similar notes, both NIC Bank and Nepal SBI banks saw their 3-year average EPS rise from Rs. 13.86 and Rs. 13.01 to Rs. 21.95 and Rs. 28.65 along with their average Debt-equity ratios rising from 0 to 21.07% and 17.23% respectively.

Hence, the rises in 3-year average Debt-equity ratio and 3-year average EPS in six sample cases show that there exists positive relationship between Debt-equity ratio and EPS, which also supports the theory of financial signaling on debt financing of a firm

with its greater profitability as companies with favourable prospects or high future profitability choose debt-financing.

4.1.7 Testing of Hypothesis

The testing of hypothesis is a process of drawing conclusion about characteristics relating to a large number of events (population characteristics) on the basis of sample observations. A hypothesis is defined by Webster as "A tentative theory or supposition provisionally adopted to explain certain facts and to guide in the investigation of others." Hypothesis, in statistics, means a statistical statement about the values of one or more parameters of the population. The technique of hypothesis testing is used to examine whether prior knowledge is supported by the sample information.

In testing of hypothesis, statistics calculated from samples drawn are taken as for examination whether the samples drawn belong to the parent population with certain characteristics. The compound values of statistics are likely to differ from the reality or population parametric value. This difference occurs simply because of the sample fluctuation or operation of chance. The testing of hypothesis releases the fact whether the difference between the calculated statistics and hypothetical parameter is significant.

The process of hypothesis testing, as shown below, includes systematic steps in order to make precise decision about the value which has to be tested. Null Hypothesis (H_0), also known as the hypothesis of no difference, is set to state what is usually in contrast with the purpose and theme of the of the test. In the other hand, Alternative Hypothesis (H_1) is set in line with the theme of the test and it attempts to nullify Null Hypothesis.

4.1.7.1 Testing of Hypothesis on Difference of MPS Before and After Debenture Issue

As stated by the theory of financial signaling due to capital structure decisions, the MPS of a firm after debenture issue should increase, for debt issues emit positive signal on profitability of the firm and that the existing stock is undervalued. It is attempted to

ascertain with the use of hypothesis testing hereby whether the MPS of sampled debt-issuing firms have increased after debenture issues.

Here, 'x' is used to denote the MPS before debenture issue and 'y' is used to denote the MPS after debenture issue. Likewise, μ_x is used to denote MPS before debenture issue of population mean and μ_y is used to denote MPS after debenture issue of population mean.

Null Hypothesis (H_0): $\mu_x = \mu_y$, i.e. there is no significant difference between the MPS before debenture issue and the MPS after debenture issue. In other words, there is no increase in MPS after debenture issue.

Alternative Hypothesis (H_1): $\mu_x < \mu_y$ (left-tailed test), i.e. there is significant difference between the MPS before debenture issue and the MPS after debenture issue. In other words, the MPS after debenture is significantly greater than the MPS before debenture issue.

Test Statistic

$$t = \frac{\bar{d}}{Sd/\sqrt{n}} \quad \sim t_{n-1}$$

Where,

$\bar{d} =$ Mean of the difference

$= \frac{\sum d}{n}$

Sd = Sample standard deviation of difference

$$= \sqrt{\frac{1}{n-1} \times \sum(d - \bar{d})^2}$$

d = y – x, difference between MPS before debenture issue (x) and MPS after debenture issue (y)

n = Number of observation (sample companies)

Table 4.6

Testing of Difference between MPS before and after Debenture Issue

Sample companies	MPS before debenture issue (x)	MPS after Debenture issue (y)	d = y-x	$d-\bar{d}$	$(d-\bar{d})^2$
HBL	1001	940	-61	296.67	88013.09
NIBL (1st issue)	810	815	5	-230.67	53208.65
EBL	776	905	129	-106.67	11378.49
BOK	430	475	45	-190.67	36355.05
NIBL (2nd issue)	1205	1212	7	-228.67	52289.97
NIC Bank	550	500	-50	-285.67	81607.35
Nepal SBI	620	638	18	-217.67	47380.23
NIBL (3rd issue)	1170	1500	330	94.33	8898.15
KBL	715	955	240	4.33	18.75
HBL (2nd issue)	1730	1970	240	4.33	18.75
NIBL (4th issue)	1788	2640	852	616.33	379862.67
Nabil	5200	6273	1073	837.33	701121.53
			$\sum d$ = 2828		$\sum(d-d)^2$= 1460152.68

$$\bar{d} = \frac{\sum d}{n} = \frac{2828}{12} = 235.67$$

$$Sd = \sqrt{\frac{1}{n-1} \times \sum(d-\bar{d})^2} = \sqrt{\frac{1}{12-1} \times 1460152.68} = 364.34$$

Calculated value of t-statistic:

$$t = \frac{\bar{d}}{Sd/\sqrt{n}} = \frac{235.67}{364.34/\sqrt{12}} = 2.2407$$

Level of Significance, Degree of Freedom & Critical Value

Level of significance (ά) = 0.05 i.e. 5%

Degree of freedom = n-1= 12-1=11

Critical value: The tabulated value of t (t_{tab}) at 5% level of significance for a left-tailed test at 11 degree of freedom is 1.796.

Decision

Since calculated value of t (t_{cal}) is greater than the tabulated value of t (i.e. t_{tab}), the null hypothesis (H_0) is rejected, which means that alternative hypothesis (H_1) is accepted. Therefore, we conclude that there is significant difference between the MPS before debenture issue and the MPS after debenture issue and that the MPS after debenture issue is significantly greater than the MPS before debenture issue.

The result of hypothesis testing is coherent with the theoretical concept of financial signaling on capital structure decisions, which states that debt issues are perceived as "good news" and, thus, carry positive signals. The fact that MPS after debenture issue is significantly greater than the MPS before debenture issue suggests that debenture issues (debt-financing) send positive signals to the capital market.

4.2 Equity-financing and Its Signals to the Capital Market

The theory of financial signaling states that equity issues are perceived as "bad news" and carry negative signals. A firm with unfavorable prospects would want to sell stock which would mean bringing in new investors to share the losses. Firms having projects whose return is uncertain would like to finance the project through new equity issue so that the losses, if occurred, could be shared among the shareholders who, unlike in the case of debt-financing, do not demand any fixed return.

None of Nepalese corporate houses has issued ordinary equity for the second time. After the initial public offering (IPO) in which general public have the chance to subscribe the offered equity, the companies issue right share or award bonus share which go to their existing shareholders, to add to their equity financing. This study can not analyse the financial signals emitted by the issuance of common equity by a company on the basis of

the share price movement of the company's stock in the absence of further public issue of equity in Nepalese capital market.

In the newly introduced Securities Registration and Issue Legislation-2008, SEBON has made arrangement to allow the listed companies to issue common equity for the second or more time. Section 2(11) of the Legislation contains information on Further Public Issue, which requires that a company, to be eligible to make further public issue, must operate in net profit at least during the last two years of previous five-year period; decision on further public issue should be passed by the company's AGM; provide justification of price determination if the subscription price is set higher than the par value.

In the absence of further public issue in the Nepalese capital market so far, this study assumes right issues as common equity issues. Hence, the practice of right issues in Nepal and their signals to the capital market are analysed in detail.

4.2.1 Rights Share Issue Practice in Nepal and Its Trend

After Nepse started functioning with its trading floor in January 1994, a total of 102 rights issues have been made in Nepalese capital market by the end of FY 2007/08. All the companies have issued their rights share at par value of Rs. 100 per share. Section 64 of Company Act 2063 bars companies from issuing rights share at discount. However, they can add premium but companies have not done so due to various reasons including fear of undersubscription. As a result there usually is wide difference between subscription price and market price per share. After Nepse started trading on its floor on 13th January, 1994, Nepal Finance and Saving Company is the first rights share issuing company in Nepal. It issued 4:1 rights share worth Rs. 2 million in FY 1995/96.

From FY 1998/99 to FY 2007/08, a total of 94 rights issues were made by companies, mostly commercial banks, development banks, finance companies and insurance companies. In FY 1998/99, rights issue worth Rs. 30 million was made. The amount of rights issue increased to Rs. 124.60 million in FY 1999/2000 when 3 companies issued

rights share. Only 2 companies made rights issue in FY 2000/01, which amounted to Rs. 131.79 million. FY 2001/02 saw a huge growth in rights issue as 5 companies made rights issues which amounted to Rs. 621.87 million in the year. In FY 2002/03, a total of 4 companies made rights issue which amounted to Rs. 162.24 million. A drastic fall in rights issue was apparent in FY 2003/04 when 3 companies made rights issue worth Rs. 70 million. The following year, however, recorded a sharp increase in rights issue which, made by 6 companies, amounted to Rs. 949.34 million in FY 2004/05. Rights share worth Rs. 1013.45 was issued by 11 companies in FY 2005/06. In FY 2006/07, 17 companies issued rights share worth Rs. 1265.30 million. FY 2007/08 recorded extraordinary growth in rights share issue as 42 companies issued rights share worth Rs. 6092.90 million.

Figure 4.4

Year-wise Issue Amount of Rights Share from FY 1998/99 to FY2007/08

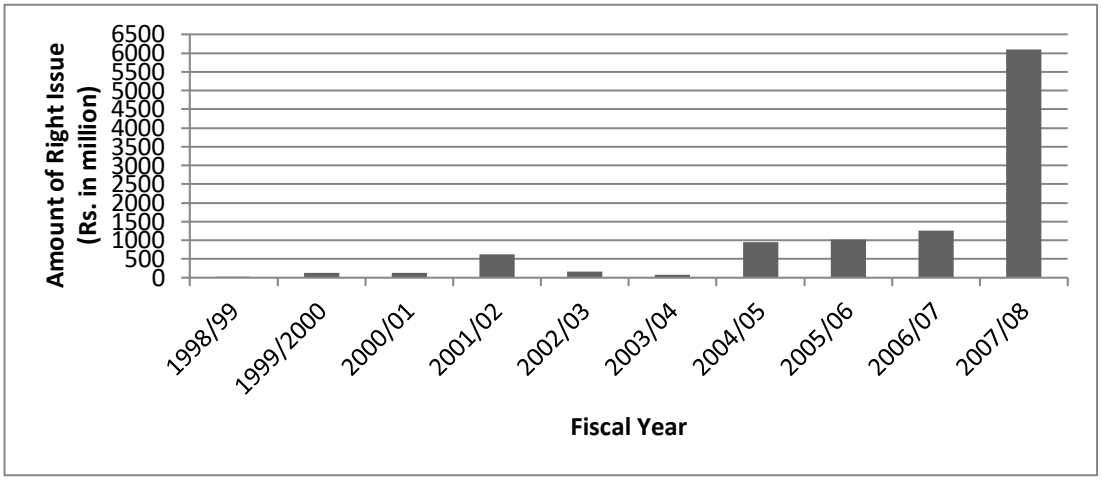
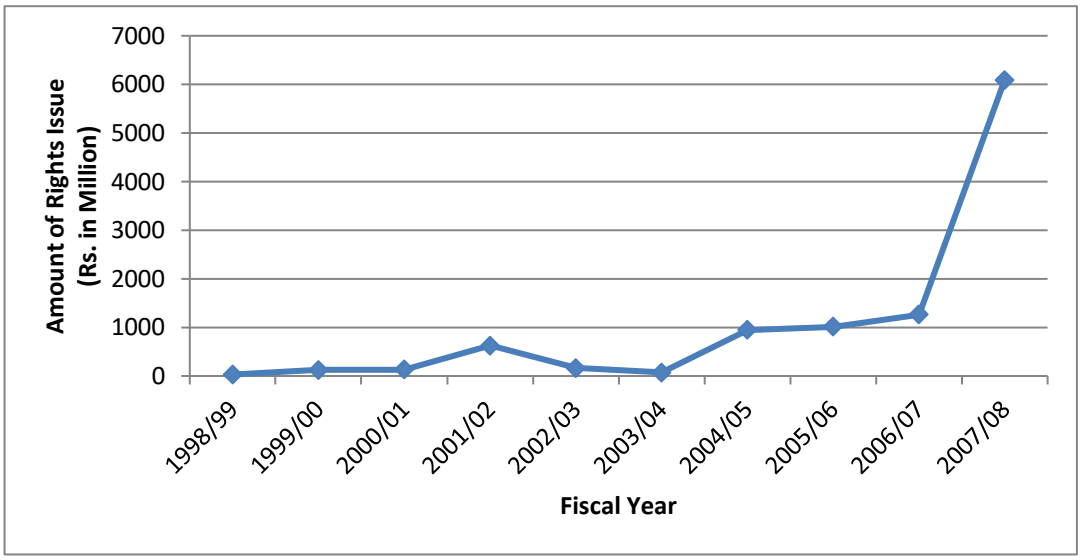


Figure 4.5

Trend of Rights Issue



4.2.2 Rights Issue vis-à-vis Total Public Flotation

Nepalese corporate bodies initiated with rights offering practice in FY 1995/96. Although the trend of rights offering did not get much momentum in the beginning, rights share offering has been a regular case in Nepalese capital market after FY 1998/99.

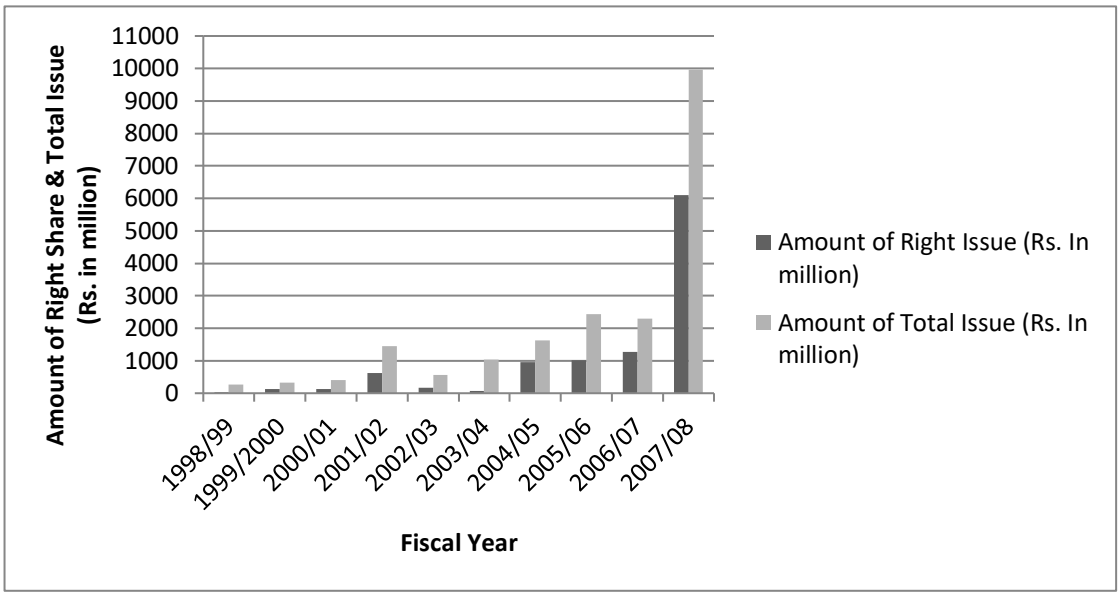
Table 4.7

Rights Issue vis-à-vis Total Public Flotation

Fiscal Year	No. of Rights Issue	Amount of Rights Issue (Rs. In million)	Amount of Total Issue (Rs. In million)	% of Rights Issue
1998/99	1	30	258	11.63
1999/00	3	124.60	326.86	38.12
2000/01	2	131.79	410.49	32.11
2001/02	5	621.87	1441.33	43.15
2002/03	4	162.24	556.54	29.15
2003/04	3	70	1027.50	6.81
2004/05	6	949.34	1626.82	58.63
2005/06	11	1013.45	2443.28	41.48
2006/07	17	1265.30	2295.60	55.12
2007/08	42	6092.90	9961.90	61.16
Total	**94**	**10461.49**	**18848.32**	**55.50**

Figure 4.6

Rights Issue vis-à-vis Total Public Flotation



The above table and figure show rights issue vis-à-vis total public flotation from FY 1998/99 to FY 2007/08. It shows the share of rights issue out of the total issue of corporate securities in last 10 years.

In FY 1998/99, rights share issue amounted to Rs. 30 million which represented 11.63% of the total issue amount of Rs. 258 million. The issue amount of rights share was Rs. 124.60 million in FY 1999/2000, which was 38.12% of the amount of the total issue of Rs. 326.86 million. In FY 2000/01, rights share issue amounted to Rs. 131.79 million which represented 32.11% of the total issue amount of Rs. 410.49 million. In FY 2001/02, rights issue worth Rs. 621.87 million was issued, which amounted to 43.15% of the total issue. The issue amount of rights share was Rs. 162.24 million in FY 2002/03, which was 29.15% of the total issue amount of Rs. 556.54 million. In FY 2003/04, rights share issue amounted to Rs. 70 million which represented 6.81 % of the total issue amount of Rs. 1027.50 million. In FY 2004/05, rights issue worth Rs. 949.34 million was made, which comprised of 58.63% of the total issue amount of Rs. 1626.32 million. Rights issue worth Rs. 1013.45 million represented 41.48% of the total issue amount of Rs. 2443.28 in FY 2005/06. The issue amount of rights share was Rs. 1265.30 million in FY 2006/07, which was 55.12% of the total issue amount of Rs. 2295.60 million. In FY

2007/08, rights issue amounted to a whooping Rs. 6092.90 million which represented 61.16% of the total issue amount of Rs. 9961.90 million.

4.2.3 Comparison of Stock Price before and after Rights Share Issue

According to the theoretical concept of financial signaling, equity issues are regarded as "bad news" and send a negative signal to the capital market. A firm with high profitability would avoid issuing equity. If the firm sells stock, then, when the profits start flowing in, the price of the stock would rise sharply, and the purchasers of the new stock would make a bonanza. The current stockholders would also do well, but not as well as they would have done if the company had not sold stock before price increased, because they would not have had to share the benefits from the new product with the new stockholders. Negative signals emitted by equity issues are supposed to cause a decrease in MPS of the equity-issuing entity.

The table below presents the market price of stock (MPS) of sampled rights share-issuing companies before and after the rights issues. MPS before rights issue represents closing market price of stock one month prior to the rights issue whereas MPS after rights issue represents the closing market price of stock one month after the rights issue.

The negative change reflects a decrease in the MPS of the rights-issuing firm after the rights issue. In other words, the negative change in price indicates that the price of the stock after rights issue is less than the price of the stock before rights issue. In the contrary, the positive change in price indicates that the price of the stock after rights issue is greater than the price of the stock before rights issue. In other words, the positive change reflects an increase in the MPS of the rights share-issuing firm after the rights issue.

The negative change in the price of stock of the rights-issuing firm after the rights issue is theoretically coherent phenomenon. It is because negative signals emitted by equity issues should lead to the decrease in the MPS of the equity-issuing firm. In the contrary,

the positive change in the price of the stock of the rights-issuing firm after rights issue is incoherent phenomenon from theoretical viewpoint.

Table 4.8

Comparison of MPS of Sampled Companies before and after Rights Share Issue

Name of Companies	Rights Share Ratio	Pre-rights Issue Price (Rs.)	Post-rights Issue Price (Rs.)	Change in Price (Rs.)	Change in Price (%)
KBL	4:1	380	338	-42	-11.05
MBL	10:3	321	323	2	0.62
LUBL	5:1	170	167	-3	-1.76
AFCL	1:1	501	510	9	1.80
LBL	5:1	545	470	-75	-13.76
KMBFL	1:1	525	570	45	8.57
SBL	5:1	632	700	68	10.76
NMB Bank	1:4	3780	961	-2819	-74.58
NIBL	5:1	2200	1540	-660	-30
GDBL	2:1	866	950	84	9.70

$$Change\ in\ Price\ (\%) = \frac{\text{Post rights issue price} - \text{Pre rights issue price}}{\text{Pre rights issue price}} \times 100$$

Theoretically, the MPS of a stock should decline by the value of the rights after the holder-of-record date. In other words, the ex-rights price of a given stock should be less than the rights-on price of stock by the amount of value of rights.

The above table shows that five out of the ten sample companies' share price increased after rights issue. The MPS of MBL was Rs. 321 one month prior to the rights issue, which nominally increased to Rs. 323 after its 10:3 rights issue. The percentage price increase in MPS of MBL was 0.62%. The MPS of AFCL increased from Rs. 501 to Rs. 510 after its 1:1 rights issue, making thereby a price increase of 1.80 %. The MPS of KMBFL increased by 8.57% from Rs. 525 to Rs. 570 after its 1:1 rights issue. The stock price of SBL increased from Rs. 632 to Rs. 700, an increase of 10.76% after its 5:1 rights issue. Likewise, the stock price of GDBL increased from Rs. 866 to Rs. 950, an increase of 9.70%, after the 2:1 rights issue.

However, the stock prices of five out of the ten sample companies have decreased after rights issue in what sounds logical with the theory. There was a fall of 11.05% in the MPS of KBL after its rights issue as the share price tumbled down from Rs. 380 to Rs. 338. The MPS of LUBL had a decline of 1.76% from Rs. 170 to Rs. 167 after the rights issue. The stock price of LBL decreased by 13.76% as it declined from Rs. 545 to Rs. 470 after the rights issue. There was a huge decline of 74.58% in the MPS of NMB Bank as the share price tumbled from Rs. 3780 to Rs. 961 after its 1:4 rights issue. The MPS of NIBL had a decline of 30% from Rs. 2200 to Rs. 1540 after its 5:1 rights issue.

4.2.4 Comparison of Theoretical and Actual Market Price after Rights Share Issue

Theoretical price of stock after rights issue is computed by deducting the value of rights from the actual MPS of the stock before the rights issue. Theoretical price of the stock is a logical price that should prevail in case of a particular stock after the rights issue. Computation of the theoretical market price per share helps to find out the role of the rights offering on the stock price movement. The impact of the rights share issue on the market price per share can be found with the help of the theoretical market price per share.

Comparison of the theoretical price with the actual MPS after the rights issue facilitates the measurement of the impacts of the rights offering. These comparison outcomes of the share evaluate the impact of the rights offering on the market price per share.

If the actual market price per share is found to be higher than the theoretical market price per share, it is then the case of positive change in share price. In other words, the case of actual MPS higher than the theoretical price indicates of the positive signals emitted by the rights offering. On the other hand, if the actual market price per share is found to be lower than the theoretical market price per share, it is the case of negative change in share price. The case of actual MPS lower than the theoretical price indicates of the negative signals resulted by the rights offering.

Table 4.9

Comparison of Actual Market Price and Theoretical Price after Rights Issue

S. No.	Name of Companies	Rights Share Ratio	Actual MPS after rights issue	Theoretical price after rights issue	Actual MPS – Theoretical Price	% Change in Price
1	KBL	4:1	338	324	14	4.32
2	MBL	10:3	323	270	53	19.63
3	LUBL	5:1	167	158.33	8.67	5.48
4	AFCL	1:1	510	300.50	209.50	69.72
5	LBL	5:1	470	470.83	-0.83	-0.18
6	KMBFL	1:1	570	312.50	257.50	82.40
7	SBL	5:1	700	543.33	156.67	28.84
8	NMB Bank	1:4	961	836	125	14.95
9	NIBL	5:1	1540	1850	-310	-16.76
10	GDBL	2:1	950	610.67	339.33	55.57

$$Percentage\ Change\ in\ Price = \frac{\text{Actual Price} - \text{Theoretical Price}}{\text{Theoretical Price}} \times 100$$

Theoretically, actual market price and the theoretical price of the share after rights share issue should be equal. The above table shows the percentage change in actual market price and theoretical price of share after rights share issue. The actual MPS after the rights issue of KBL is Rs. 338 which is 4.32% higher than the theoretical price of Rs. 324. The actual MPS after the rights issue of MBL is Rs. 323 which is 19.63% higher than the theoretical price of Rs. 270. In case of LUBL, the actual MPS after rights issue is 5.48% greater than the theoretical price as the actual MPS after rights issue and theoretical price of its share are Rs. 167 and Rs. 158.33 respectively. The actual MPS after rights issue in case of AFCL is Rs. 510 which is 69.72% higher than the theoretical price of Rs. 300.50. In case of LBL, the actual MPS after rights issue is Rs. 470 which is less than the theoretical price of Rs. 470.83 by a negligible percentage value of 0.18%. The actual MPS after the rights issue of KMBFL is Rs. 570 which is higher than its theoretical price of Rs. 312.50 by whopping 82.40%. Likewise, the actual MPS and theoretical price after the rights issue in case of SBL's stock are Rs. 700 and Rs. 543.33 respectively as the actual MPS is higher than the theoretical price by 28.84%. The actual

MPS after the rights issue of NMB Bank is Rs. 961 which is 14.95% higher than the theoretical price of Rs. 836. In what seems to be one of the rarest cases, the actual MPS after the rights issue of NIBL is 16.76% less than the theoretical price as the actual MPS and the theoretical price after the rights issue are Rs. 1540 and Rs. 1850 respectively. The actual MPS after the rights issue of GDBL is Rs. 950 which is 55.57% higher than it theoretical price of Rs. 610.67.

Hence, the actual MPS after rights issues by the eight companies are higher than the respective theoretical prices. It means that rights issue sends positive signals to the capital market. Such condition of higher actual MPS than the Theoretical Price in majority of the cases fails to comply with the viewpoint of the theory of financial signaling which stresses that equity issue sends negative signal to the capital market.

4.2.5 Comparison of EPS before and after Rights Issue

The theory of financial signaling links equity financing of a company with unfavourable prospects and uncertain profitability of the company in the future. A firm with unfavorable prospects would want to sell stock which would mean bringing in new investors to share the losses. If the firm faces a situation of unfavourable prospects and uncertain profitability in the future, it would prefer equity financing which involves shareholders who do not demand fixed returns. Not having to pay fixed or compulsory charges in difficult times avoids a firm's bankruptcy. Unlike in the case of debt-financing, failure of a firm to pay dividend to its stockholders does not precipitate its bankruptcy.

The analysis of Earning per Share (EPS) makes one understand the profitability scenario of a firm. The table below presents the 3-year average EPS of sampled rights-issuing companies before and after the rights issues. The 3-year average EPS before rights issue represents the average EPS earned by the rights-issuing firm during the three years period prior to the rights issue whereas the 3-year average EPS after rights issue represents the average EPS earned by the rights-issuing firm during the three years subsequent to the rights issue.

The positive change in the EPS indicates that the EPS after rights issue is greater than the EPS before rights issue. In other words, the positive change reflects an increase in the EPS of the rights-issuing firm after the rights issue. In the contrary, the negative change in price indicates that the EPS after rights issue is less than the EPS before rights issue. In other words, the negative change reflects a decrease in the EPS of the rights-issuing firm after the rights issue.

Negative change in the EPS after equity (rights) issue reflects the decreased profitability of the equity-issuing entity after equity-financing. Such decreased profit (or losses) following equity-financing is theoretically coherent phenomenon according to the theoretical concept of financial signaling on capital structure issues. In the contrary, positive change in the EPS of equity-issuing firm after equity issues is incoherent phenomenon from the theoretical viewpoint.

Table 4.10

Comparison of EPS before and after Rights Issue

Sample Companies	Average EPS before Rights Issue (Rs.)	Average EPS after Rights Issue (Rs.)	Change in EPS (Rs.)	Change in EPS (%)
EBL	25.82	31.46	5.64	21.84
BOK	31.12	15.74	-15.38	-49.42
Nepal SBI	21.47	11.78	-9.69	-45.13
DCBL	17.30	11.81	-5.49	-31.73
MBL	8.91	12.70	3.79	42.54

$$Change\ in\ Average\ EPS\ (\%) = \frac{\text{Post rights issue Average EPS} - \text{Pre rights issue Average EPS}}{\text{Pre rights issue Average EPS}} \times 100$$

The above table shows 3-year average EPS before rights issues and 3-year average EPS after rights issue of 5 companies. Out of the five sample cases, the EPS of two companies i.e. EBL and MBL have increased after their rights issues. The 3-year average EPS of EBL was Rs. 25.82 before its rights issue in FY 2000/01. The 3-year average EPS of

EBL increased in the years following the rights issue by 21.84% to reach on to Rs. 31.46. Before MBL's rights issue in FY 2005/06, its 3-year average EPS was Rs. 8.91 which increased in the three years subsequent to the rights issue by 42.54% to reach on to Rs. 12.70.

Out of the five sample cases, the 3-year average EPS of three companies i.e. BOK, Nepal SBI, and DCBL have had a downward plunge after their respective rights issues. The 3-year average EPS of BOK was Rs. 31.12 prior to its rights issue in FY 2001.02. BOK's 3-year average EPS decreased in the years following the rights issue by 49.42% to Rs. 15.74. Likewise, the 3-year average EPS of Nepal SBI Bank was Rs. 21.47 before its rights issue in FY 2001/02. Nepal SBI Bank's 3-year average EPS saw a huge decline of 45.13% after the rights issue as it went down to Rs. 11.78. Similarly, the 3-year average

EPS of DCBL was Rs. 17.30 before its rights issue in FY 2005/06. DCBL's 3-year average EPS had a negative growth of 31.73% after the rights issue as it reached down to Rs. 11.81.

The considerable plunges in the EPS of 3 out of the 5 sample cases of rights issue indicates that firms tend to make rights issues in the wake of declining profitability. It also emphasizes the theoretical concept of financial signaling on capital structure issues, which states firms with unfavourable earning prospects choose equity financing thereby bringing in new shareholders/investors to share the losses.

4.2.6 Testing of Difference between Actual MPS and Theoretical Price

Null Hypothesis (H_0): $\mu_x = \mu_y$, i.e. there is no significant difference between the actual MPS and the theoretical price after the rights issue. That means the actual MPS after the rights issue and theoretical price are the same.

Alternative Hypothesis, H_1: $\mu_x \neq \mu_y$ (two-tailed test) i.e. there is significant difference between the actual MPS and the theoretical price after the rights issue. That means the actual MPS after the rights issue and theoretical price are not the same.

Test Statistic:

$$t = \frac{\bar{d}}{Sd/\sqrt{n}} \sim t_{n-1}$$

Where,

$\bar{d}$ = Mean of the difference

$$= \frac{\sum d}{n}$$

Sd = Sample standard deviation of difference

$$= \sqrt{\frac{1}{n-1} \times \sum(d - \bar{d})^2}$$

d = x – y, difference between MPS before rights issue (x) and MPS after rights issue (y)

Table 4.11

Testing of difference between Actual MPS and Theoretical Price after Rights Issue

Name of Companies	Actual MPS after Rights Issue (x)	Theoretical Price (y)	d = x-y	$d-\bar{d}$	$(d-\bar{d})^2$
KBL	338	324	14	-71.084	5052.9351
MBL	323	270	53	-32.084	1029.3831
LUBL	167	158.33	8.67	-76.414	5839.0994
AFCL	510	300.50	209.50	124.416	15479.3411
LBL	470	470.83	-0.83	-85.914	7381.2154
KMBFL	570	312.50	257.50	172.416	29727.2771
SBL	700	543.33	154.67	69.586	4842.2114
NMB Bank	961	836	125	39.916	1593.2871
NIBL	1540	1850	-310	-395.084	156091.3671
GDBL	950	610.67	339.33	254.246	64641.0285
			$\sum d$ = 850.84		$\sum(\bar{d}-d)^2$= 291677.1453

$$\bar{d} = \frac{\sum d}{n} = \frac{850.84}{10} = 85.084$$

$$Sd = \sqrt{\frac{1}{n-1} \times \sum (d - \bar{d})^2} = \sqrt{\frac{1}{10-1} \times 291677.1453} = 180.0238$$

Calculated value of t-statistic:

$$t = \frac{\bar{d}}{Sd/\sqrt{n}} = \frac{85.084}{180.0238/\sqrt{10}} = 1.4946$$

Level of Significance, Degree of Freedom & Critical Value

Level of significance (ά) = 0.05 i.e. 5%

Degree of freedom = n-1= 10-1=9

Critical value: The tabulated value of t (t_{tab}) at 5% level of significance for a two-tailed test at 9 degree of freedom is 2.262.

Decision

Since calculated value of t (t_{cal}) is less than the tabulated value of t (i.e. t_{tab}), the null hypothesis (H_0) is accepted, which means that alternative hypothesis (H_1) is rejected. Therefore, we conclude that there is no significant difference between the actual MPS and the theoretical price after the rights issue.

The acceptance of H_0, and the consequent rejection of H_1, means the actual MPS after the rights issue and theoretical price are the same and that rights issues can neither be associated with positive signals nor with negative signals based on the hypothesis testing between the theoretical price and the actual MPS.

4.3 Analysis of Primary Data

With expansion in both primary and secondary markets, the capital market in Nepal has witnessed significant changes over the last couple of years. The number of companies issuing securities and the number of investors both have risen tremendously. This continued expansion has, most importantly, shown an immense potentiality of the capital

market to thrive further, thereby bringing in positive impacts in the promotion and development of the entire corporate sector. After the government initiated reforms in the capital market under corporate and financial governance (CFG) project with the assistance from Asian Development Bank (ADB) in 2003, Securities Ordinance and Company Ordinance came into existence which empowered the SEBON to review and monitor the affairs of corporate sector. In the last two years, SEBON has introduced and implemented a slew of legislations which have facilitated to bring about a huge growth of IPO, among other welcome changes in Nepal's capital market. At the end of FY 2007/08, there were 142 listed companies in Nepse and the total market capitalization was Rs. 366.20 billion.

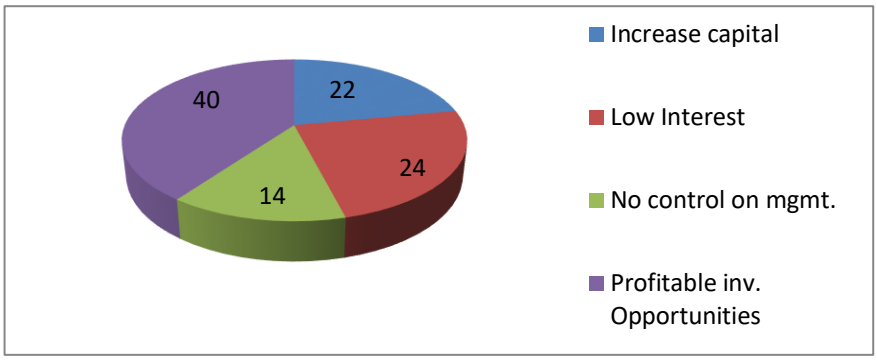
In an attempt to elicit first-hand responses, a total of 75 individuals representing debenture & right issuing companies, issue managers, regulatory bodies, experts and investors were approached with a set of questionnaires, and interview in select cases. Analysis of primary data is based on the responses received from 72 individuals whose views are incorporated hereunder.

4.3.1 Reasons to Choose Debt-financing

Asked about the main reason for Nepalese corporate houses to choose debt financing, 16 (i.e.22%) of the respondents say Nepalese corporate houses issue debentures to increase paid-up capital. A total of 17 (i.e.24%) of them think the reason to be the low interest rate in the market whereas 10 (i.e.14%) believe it is because debenture-holders do not have control on company management.

Figure 4.7

Reasons for Debt-financing in Nepal



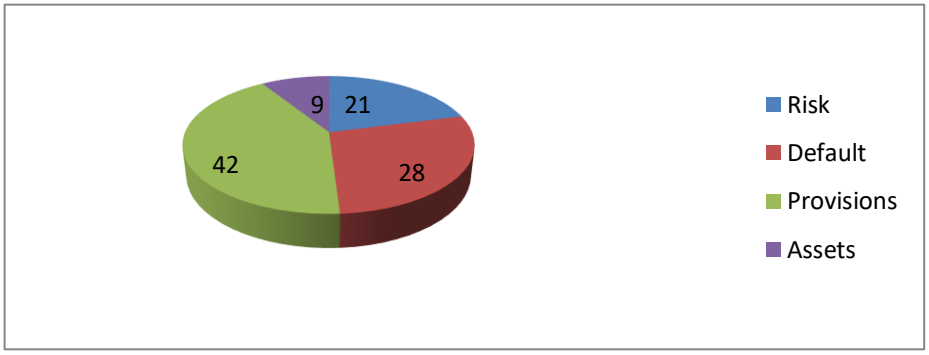
A total of 29 (i.e.40%) respondents opine that availability of highly profitable investment opportunities is the main reason for Nepalese corporate houses to choose debt-financing as they believe that companies with bright future prospects would use debt-financing which demands a certain fixed charge without laying claim on the entire profit.

4.3.2 Disadvantage of Issuing Debenture

Asked to identify the most influential disadvantage of issuing debenture, 15 (i.e.21%) of the respondents say the fact that debt-financing involves risk due to long-term commitment is its main drawback. For 20(i.e.28%) of the respondents, non-payment of fixed charges that could lead to default is the main disadvantage whereas 7(i.e.9%) of them think that debenture issue requires high amount of assets for the sake of creditworthiness.

Figure 4.8

Disadvantage of Issuing Debenture



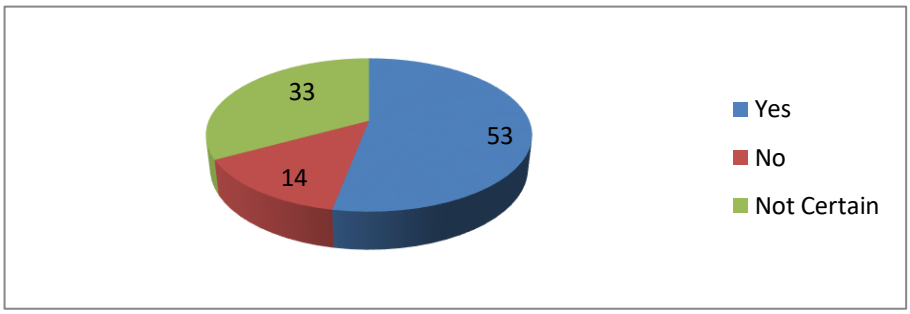
For 30 out of the 72 (i.e.42%) respondents, the most influential disadvantage of issuing debenture is the fact that provisions must be made to repay debt within a fixed maturity period.

4.3.3 Do Debenture Issues Send Positive Signals?

Asked if debenture issues send positive signals to the capital market, 24 out of the 72 (i.e.33%) respondents say it is 'Not Certain' whereas 10 (i.e.14%) of them say 'No' which means debenture issues, as they think, send negative signals to the capital market.

Figure 4.9

Do Debenture Issues Send Positive Signals?



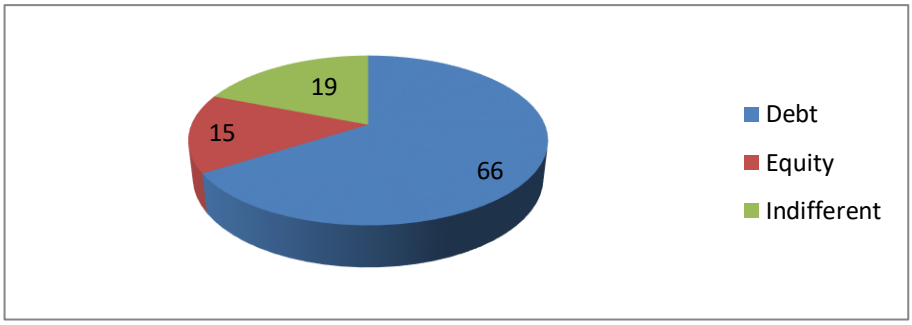
On the other hand, a total of 38 (i.e.53%) respondents say 'Yes' as they think that debenture issues send positive signals to the capital market.

4.3.4 Source of Financing for Highly Profitable Investment Opportunity

Asked what would be their suggestion on the source of financing for their companies in case of availability of profitable investment opportunity, 11 out of the 72 (i.e.15%) of the respondents say equity financing would be their suggestion whereas 14 (i.e.19%) say they would be indifferent between debt and equity.

Figure 4.10

Source of Financing for Highly Profitable Investment Opportunity



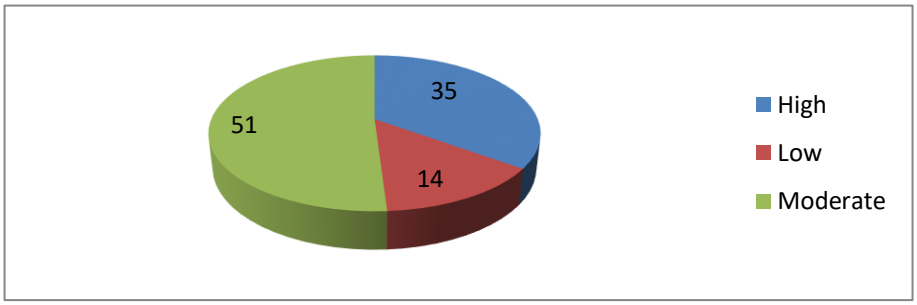
A total of 47 (i.e.66%) of the respondents say debt (debenture) is the fitting source of financing for the companies having highly profitable investment opportunities as payment of certain committed charges would suffice in case of debt financing.

4.3.5 Condition of Information Asymmetry

Asked about the condition of information asymmetry (insiders/managers having better information than outsiders/investors) in Nepalese capital market, 25 out of 72 (i.e.35%) of the respondents say that there exists the condition of high level of information asymmetry. On the other hand, 10 (i.e.14%) of them believe on the existence of low level of information asymmetry in Nepal's capital market.

Figure 4.11

Condition of Information Asymmetry



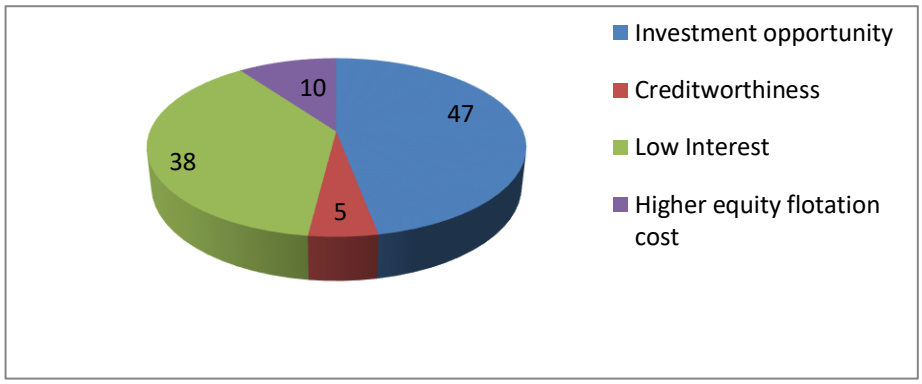
A total of 37 (i.e.51%) of the respondents opine that there exists the condition of moderate level of information asymmetry in Nepalese capital market as they go on to elaborate that such conditions of information asymmetry have now and then resulted in out-of-trend transactions in the secondary market.

4.3.6 Condition to Make Debt-financing Preferable to Equity-financing

With regard to the conditions in which debt-financing is preferable to equity financing, 4 out of the 72 (i.e.5%) respondents say availability of strong creditworthiness and high amount of assets makes debt financing more preferable to equity financing. A total of 27 (i.e.38%) of them say that low interest rate in the market makes debt financing more lucrative whereas 7 (i.e.10%) think higher flotation cost for equity issue makes debt financing more attractive.

Figure 4.12

Condition to Make Debt-financing Preferable to Equity-financing



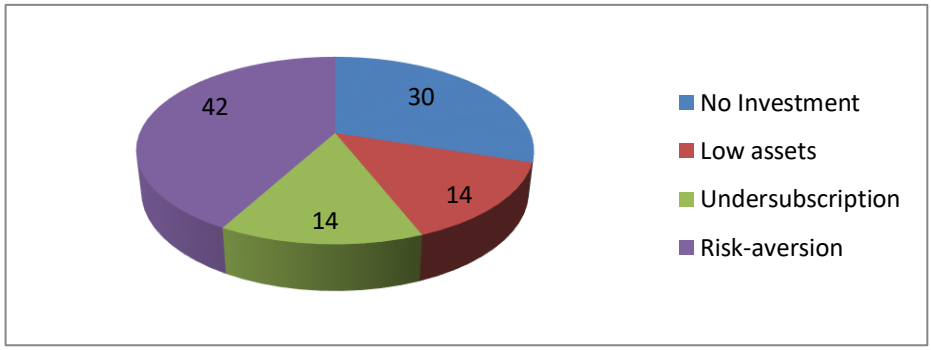
A total of 34 (i.e.47%) of them opine that the condition of availability of highly profitable investment opportunity makes debt financing preferable to equity financing.

4.3.7 Non-banking Sector's Shyness on Debt-financing

With regard to the non-banking sector's shyness on debt financing, 22 out of the 72 (i.e.30%) respondents think that lack of highly profitable investment opportunities is the reason. Similarly, a total of 10 (i.e.14%) of them opine that low amount of assets and creditworthiness is keeping the non-banking sector in distance from debt-financing whereas other 10 (i.e.14%) say that the non-banking sector is keeping itself away from debt-financing due to under subscription of some of the past debentures.

Figure 4.13

Non-banking Sector's Shyness on Debt-financing



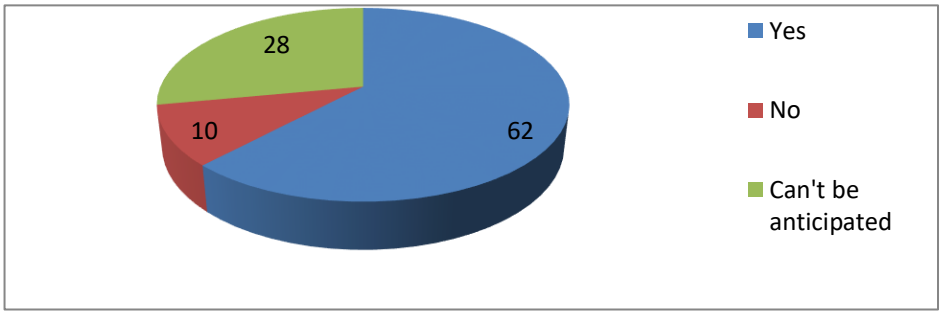
In views of 30 (i.e.42%) of the respondents, the non-banking sector is shy of debt-financing in Nepal due to the risk-averting nature of the management as they think debt-financing is associated with higher risk.

4.3.8 Will Nepalese Companies Use Debt-financing More in Future?

Asked whether Nepalese corporate houses will use debt-financing in a greater degree in future, 20 out of the 72 (i.e.28%) respondents think it can not be anticipated. In the other hand, a total of 7(i.e.10%) of them say 'No' as they think that debt-financing will decline in future.

Figure 4.14

Will Nepalese Companies Use Debt-financing More in Future?



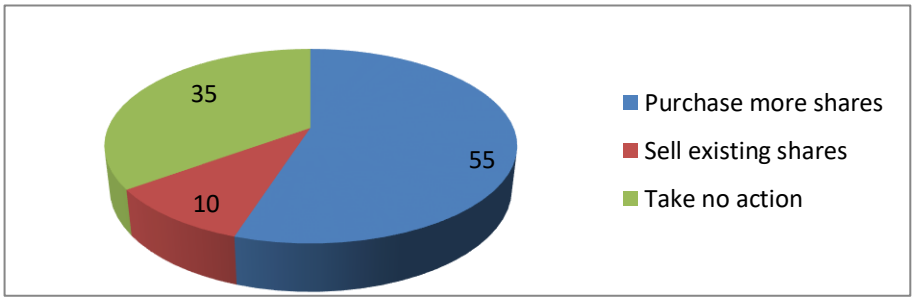
Citing the trend of debenture issue in recent years, 45 (i.e.62%) respondents say Nepalese corporate houses will use debt-financing in a greater degree in future.

4.3.9 Response to Debenture Issue Announcement as a Stockholder

Asked how they, as a common shareholder of a company, would respond if the company announces to issue debenture, 7 of the 20 (i.e.35%) investors say they would take no action. On the other hand, 2 (i.e.10%) investors say that he would sell existing shares.

Figure 4.15

Response to Debenture Issue Announcement as a Stockholder



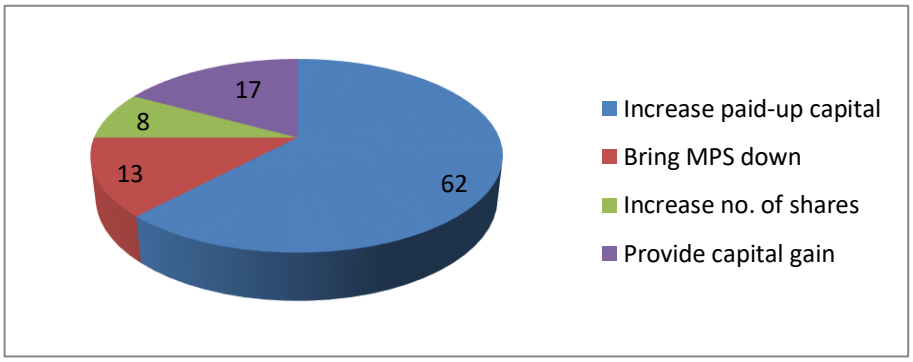
A total of 11 out of the 20 (i.e. 55%) investors say they would purchase more shares as the positive signals associated with debt-financing announcement would push the MPS of the company's stock upward.

4.3.10 Motive of Rights Issue

Asked to identify the main motive of rights issues in Nepal, 9 out of all 72 (i.e.13%) respondents say the main cause behind the rights issues is to bring MPS down to popular trading range whereas 6 (i.e.8%) of them it is to increase number of outstanding shares. A total of 12 (i.e.17%) respondents think rights issues are meant to provide investors with capital gain.

Figure 4.16

Motive of Rights Issue



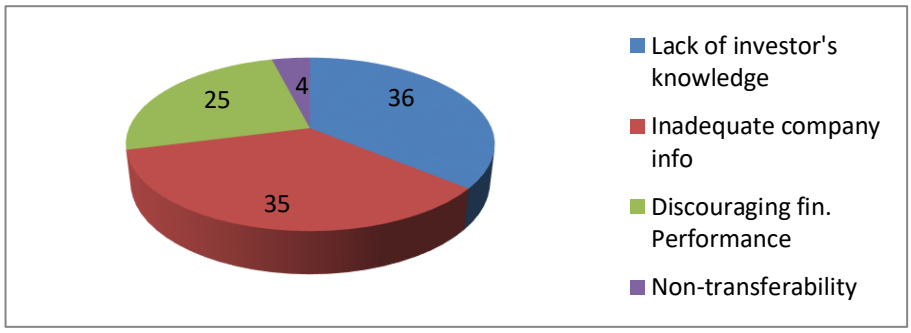
On the other hand, 45 out of the 72 (i.e.62%) respondents say Nepalese corporate houses issue rights to increase paid-up capital as per the NRB's directive to do so.

4.3.11 Reason for Occasional Under subscription of Rights

Asked to identify the reason for occasional under subscription of rights issue in Nepal, 25 out of the 72 (i.e.35%) respondents blame for the inadequate dissemination of information by the issuing companies whereas 18 (i.e.25%) of them think it is so because of the discouraging financial performance of the company. On the other hand, 3 (i.e.4%) respondents say under subscription of rights occurs due to non-transferability of rights.

Figure 4.17

Reason for Occasional Under subscription of Rights



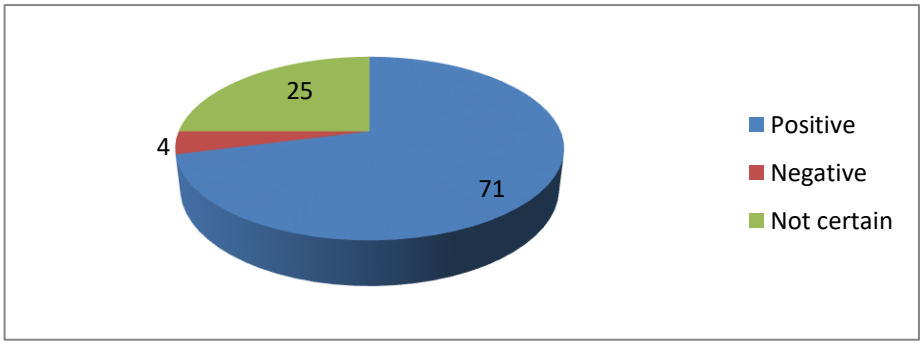
In the views of 26 (i.e.36%) respondents, lack of knowledge on part of the investors is the most prominent reason for occasional under subscription of rights issue in Nepal.

4.3.12 Signals Emitted by Rights Issue

With regard to the nature signals that rights issues send to the capital market, 3 out of the 72 (i.e.4%) respondents say rights issues send negative signals to the capital market. A total of 18 (i.e.25%) of them think the signals that rights issues send to the capital are not certain.

Figure 4.18

Signals Emitted by Rights Issue



In the views of 51 of the all (i.e.71%) respondents, rights issues send positive signals to the capital market.

4.4 Major Findings

Major findings include the findings drawn from secondary and primary data analysis. The findings relate themselves to debt-financing (debenture issues) and equity-financing (rights issues).

4.4.1 Findings from Secondary Data

4.4.1.1 Debt-financing (debenture issues) related Findings from Secondary Data

a. Manufacturing companies such as Bottlers Nepal Ltd, Jyoti Spinning Mills, Shree Ram Sugar Mills Ltd started the practice of corporate debenture issue in Nepal. Commercial banks, however, have given continuity to the trend after FY 2001/02.
b. By the end of FY 2007/08, 16 debenture issues have been made, mostly by commercial banks. With 4 debenture issues so far, NIBL is ahead in terms of number of debenture issues. NEA made the largest ever debenture issue worth Rs. 1500 million in FY 2007/08.
c. The initial issues of debenture by manufacturing companies offered much higher coupon interest compared to the coupon rates offered in recent issues. The debenture issue by Bottlers Nepal Ltd in FY 1986/87 offered 18% coupon interest; Jyoti Spinning Mills in FY 1992/93 paid 20% coupon interest; SRSML debenture in 1997/98 paid 14% coupon interest. On the other hand, EBL, BOK, NIBL, NIC Bank, and Nepal SBI Bank offered coupon rate as low as 6% in their respective debenture issues in FY 2004/05 and FY 2005/06.
d. From FY 1997/98 to FY 2007/08, Nepalese corporate houses issued debenture worth Rs. 5103 million in total. The amount of total issue of corporate securities was Rs. 20610.68 million in the same period. This shows that the amount of debenture issue comprises 24.52% of the amount of total corporate securities issued.
e. From FY 1997/98 to FY 2007/08, the trend of debenture issue is not consistent, for no debenture was issued from FY 1998/99 to FY 2000/01 and in FY 2002/03,

and issue amount, too, varied largely. However, regular issues of debenture after FY 2003/04 suggest that Nepalese corporate houses are getting familiar with debt-financing.

f. With the exception in case of HBL's 1st debenture issue after which its 3-year EPS declined by 39.56%, the 3-year average EPS of 6 out of the 7 sample companies increased considerably after their respective debenture issues. Compared to the 3-year average EPS just prior to their debenture issues, the average EPS in cases of NIBL (1st issue), EBL, BOK, NIBL (2nd issue), NIC Bank, and Nepal SBI increased after the debenture issues by 41.59%, 80.22%, 96.87%, 37.49%, 58.37%, and 120.22% respectively. These substantial growths in the average EPS in 6 out of 7 sample cases of debenture issues bolster the theoretical viewpoint of financial signaling on capital structure issues, which associates debt financing of a firm with its greater profitability of a firm stating that companies with favorable prospects or high future profitability choose debt-financing.

g. Hence, the rises in 3-year average Debt-equity ratio and 3-year average EPS in six sample cases show that there exists positive relationship between Debt-equity ratio and EPS, which also supports the theory of financial signaling on debt financing of a firm with its greater profitability as companies with favourable prospects or high future profitability choose debt-financing.

h. Out of the 12 sample companies, 10 companies' MPS increased after their respective debenture issues while the MPS of HBL (2nd issue) and NIC BANK decreased after debenture issues by less than 10%. The MPS of NIBL after its 2nd debenture issue in FY 2005/06 increased by the lowest margin of 0.58% whereas NIBL saw its MPS increase by the highest margin of 47.65% after its 4th debenture issue in FY 2007/08.

i. The increase in MPS after debenture issue is significant as proved by t-statistic of hypothesis test, which means that corporate debenture issues send positive signals to the capital market. The positive signals or "good news" as perceived by the investors lead to the increase in share prices after the announcement and issue of debenture.

j. The rises in 3-year average Debt-equity ratio and 3-year average EPS in six sample cases show that there exists positive relationship between Debt-equity ratio and EPS, which also supports the theory of financial signaling on debt financing of a firm with its greater profitability as companies with favourable prospects or high future profitability choose debt-financing.

k. The increase in 3-year average EPS after debenture issue is significant as proved by t-statistic of hypothesis test, which means that association of debt-financing with higher future profitability can be logically connected. As stated in the theory of financial signaling on capital structure decisions, it is coherent with the theory that companies having bright future prospects prefer debt financing.

4.4.1.2 Equity-financing (rights issues) related Findings from Secondary Data

a. None of Nepalese corporate houses has issued equity to common public for the second or more time after their IPOs. Section 2 (11) of Securities Registration and Issue Legislation-2008 has paved way for listed corporate houses to increase capital through further public issue.

b. Instead of the common equity, Nepalese commercial banks, development banks, and finance companies have extensively issued rights share to increase their paid-up capital as per NRB's directive which has mandated commercial banks to increase the paid capital to Rs. 2 billion, development banks to Rs. 640 million and finance companies to Rs. 200 million by the year 2011 (for new banks) and the year 2014 for old banks.

c. A total of 100 rights issues have been made in Nepalese capital market by the end of FY 2007/08. However, 42 of the issues were made in FY 2007/08 alone. In FY 1998/99, only 1 company issued rights share worth Rs. 30 million whereas, to the maximum end, a total of 42 companies issued rights share worth Rs. 6092.90 million in FY 2007/08.

d. Right issue has occupied the better part of the total amount of securities issued in recent years. During the 10-year period from FY 1998/99 to FY 2007/08, rights issue comprised 55.50% of the total amount of securities issued. Its share out of

total issue of corporate securities was 58.63% in FY 2004/05, 41.48% in FY 2005/06, 55.12% in FY 2006/07, and 61.16% in FY 2007/08.

e. Share price movement after rights issue does not seem to be consistent. Out of the 10 sample companies, share prices of 5 companies increased after one month of right issue while the same of the remaining five companies decreased after one month of rights issue.

f. The 3-year average EPS of EBL and MBL increased after their respective rights issues by 21.84% and 42.54% respectively. On the other hand, the 3-year average EPS of BOK, Nepal SBI, and DCBL declined after their respective rights issues by 49.42%, 45.13%, and 31.73% respectively. The considerable downward plunges in the average EPS of 3 out of the 5 sample cases of rights issues indicate that the EPS of a firm tends to decline after its rights issue. It also emphasizes the theoretical concept of financial signaling on capital structure issues, which states firms with unfavourable earning prospects choose equity financing thereby bringing in new shareholders/investors to share the losses.

g. Actual MPS is higher than the theoretical MPS in most of the cases. Although the difference between actual MPS and the theoretical values is not significant in terms of hypothesis testing, eight out of the ten sample companies' actual MPS were higher than their respective theoretical prices after rights issue. This suggests that rights issues send positive signal and, thus, are perceived positively by the investors in the Nepalese capital market.

4.4.2 Findings from Primary Data

4.4.2.1 Debt-financing (debenture issues) related Findings from Primary Data

a. Availability of highly profitable investment opportunities is the main reason for Nepalese corporate houses to issue debentures. Low market interest rate and NRB's directive to increase paid-up capital are other important reasons for corporate debenture issues.

b. Debenture issues are preferred to equity issues in case of availability of highly profitable investment opportunities and low market interest rate.

c. Since debenture issues are perceived to send positive signals to the capital market, announcement of debenture issue by a company would prompt the investors to purchase shares of the company.
d. Risk-averting nature of management is the main reason for non-banking sector's apathy in debenture issues. The trend of debenture issue, however, is likely to increase in future.

4.4.2.2 Equity (rights issue)-related Findings from Primary Data

a. The main motive of Nepalese corporate houses to make rights issues is to increase their paid-up capital as per the NRB's directive.
b. Lack of knowledge on part of the investors and inadequate information dissemination by the rights-issuing companies are the two most prominent reasons for occasional undersubscription of rights issues.
c. Conditions of information asymmetry prevail in the Nepalese capital market.
d. Rights issues send positive signals to the capital market.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Capital market is the type of security market where long-term securities such as bond, preferred stock and common stock are traded. When a firm expands it needs capital. Capital can come from debt or equity. Capital is the fund raised to finance different assets and projects of short-term as well as long-term nature. Capital structure is the combination or composition of the long-term debt, preferred stock and common stock. Managers may use capital structure changes to convey information about the profitability and risk of the firm. Debt issues are regarded as "good news" and carry a positive signal whereas stock issues are perceived as "bad news" and carry a negative signal.

Divided in five chapters, this study strives to identify the financial signals emitted to the capital market by debt-financing (debenture issues) and equity-financing (rights issues) in the Nepalese context. In chapter I, the researcher puts his efforts to present the background of the study, and to specify the objectives, significance and limitations of the study. The main objective of the study is to ascertain the financial signals emitted by debt-financing (debenture issues) and equity-financing (rights issues) based on the analyses of MPS and EPS before and after debenture and rights issues by the sampled companies. The study analyses the nature of signals or impact caused by debenture issues and rights issues on the MPS and EPS of the issuing companies. The fact that none of the Nepalese companies has issued ordinary equity for the second or more time constituted a major limitation of the study which has then taken rights issue in place of ordinary equity for the study purpose.

Chapter II consists of the conceptual framework and review of empirical studies carried out on capital structure and signals emitted by capital structure decisions. The theories of capital structure are divided into behavioural theories which comprise NI Approach, NOI Approach and Traditional Approach, and contemporary theories which include M-M

Theories with and without taxes. The NI Approach and Traditional Approach argue capital structure as relevant matter whereas NOI Approach and M-M approach take capital structure as irrelevant matter. The mix of debt and equity which maximizes the value of the firm's equity capital and minimizes cost of capital is known as the optimal capital structure. Due to information asymmetry, managers of companies having better future prospects can alter the firm's capital structure by issuing more debt and thereby sending positive financial signals to the capital market. Since firms with higher profitability in future would issue debt and those expecting uncertain and lower return in future would issue equity to bring in new shareholders to share the possible loss, debt-financing is supposed to send positive signals whereas equity issues are linked to negative signals.

Chapter III includes the description and presentation of methods used to analyse and interpret the collected data to achieve the objective of the research work. The research design comprises of analytical as well as descriptive approaches which focus on MPS and EPS analysis to ascertain the financial signals following a change in capital structure. A total of 8 debenture-issuing companies are taken as sample for analyzing financial signals emitted by debt-financing whereas 12 companies which issued rights are chosen for ascertaining financial signals caused by equity-financing. The study covers 10-year time duration. In terms of analytical tools, the study uses percentage analysis and paired t-statistic.

Chapter IV deals with the presentation, analysis and interpretation of data collected from primary and secondary sources. In case of debt-financing, the study presents a thorough analysis of corporate debenture issue practice and its trend with respect to issue of other securities in the capital market. On EPS analysis, the 3-year average EPS of 6 out of the 7 sample companies increased considerably after their respective debenture issues which are linked to higher profitability in future. While analysing Debt-equity ratio and EPS, there existed positive relationship between 3-year average Debt-equity ratio and average EPS as average EPS increased with the rise in Debt –equity ratio. On MPS analysis, 10 out of 12 sample companies' MPS increased after their respective debenture issues. The

increase in MPS after debenture issue is significant as proved by t-statistic of hypothesis test, which means that corporate debenture issues send positive signals to the capital market. In case of equity financing, the study goes through an in-depth analysis of rights issue practices in Nepal's capital market. A total of 3 out of 5 sample companies' 3-year average EPS declined after their rights issues whereas share price movement after rights issue does not seem to be consistent. Out of the 10 sample companies, share prices of 5 companies increased after one month of rights issue while the same of the remaining five companies decreased after one month of rights issue. In course of primary data analysis, 38% of the respondents say that debenture issues send positive signals whereas 71% of them state rights issues, too, send positive signals to the capital market. A total of 51% of the respondents opine that there exists moderate level of information asymmetry in the Nepalese capital market.

5.2 Conclusion

Despite the frequently-practised market manipulation due to small size of market and rudimentary state of operation, Nepal's capital market, thanks to the remarkable growth in both primary and secondary markets, has witnessed significant changes and expansion over the last couple of years. The continued expansion has shown a potentiality of the capital market to thrive further, thereby ushering in positive impacts in the promotion and development of corporate sector.

The trend of debenture issue in Nepal's capital market is not consistent. It is only the commercial banks which seem to be increasingly comfortable with debt-financing. The absence of companies belonging to manufacturing and other sectors in the debt-financing scenario is conspicuous. The managements of these companies seem to have a tendency to avert risks.

On the bases of analyses on EPS Debt-equity and MPS, it can be concluded that debenture issues send positive signals to the capital market and that stock prices and of debt-issuing firms increase after debt issue due to the positive signal it emits to the capital market.

NRB's directive to increase paid-up capital has resulted in upward surge in rights issues by banks and financial institutions.

Although incoherent with the theoretical concept of financial signaling on capital structure changes, rights (equity) issues emit positive signals on the basis of market price and primary data analyses. However, decrease in earnings after rights issues has led the researcher to conclude that firms with unfavourable earning prospects choose equity financing thereby bringing in new shareholders/investors to share the losses. Condition of information asymmetry leads to financial signaling on capital structure changes. Higher the level of information asymmetry, greater the signals and responses in the capital market.

5.3 Recommendations

Even after the government implemented the ADB-assisted corporate financial governance (CFG) project and the resultant expansion of both primary and secondary markets, Nepal's capital market still functions amidst numerous flaws which fall on the part of regulatory authorities, corporate houses, and investors. Based on the findings during the course of this research work, the researcher has following practicable recommendations to incorporate hereunder.

- **Introduce pro-investors policies to build their trust**

Occasional malpractices have severely drained investors' faith and confidence in Nepal's capital market. SEBON should introduce policies to safeguard investors' interests to build their trust. Regulatory authorities and corporate houses need to work together to build investor's and other stakeholders' trust on capital market, for 'trust grows at the rate a coconut tree grows and falls at the rate a coconut falls.' SEBON should not let errant events go unnoticed in the capital market.

- **Adopt principle-based financing policies**

Nepalese corporate houses lack clear principles based on which their financing policies can be carved out. For example, NIBL issued debenture worth Rs. 300 million in FY 2003/04 and it also issued rights share amounting to Rs. 295.29 the following year. The corporate bodies have extensively issues rights and awarded bonus shares in recent years to increase their paid-up capital in line with NRB's directive. They have chosen not to justify the cause of debt and/or equity financing.

- **Develop multi-dimensional capital market**

Nepal's capital market is characterized by overwhelming domination of banking sector. Banking sector's underperformance at the stock exchange on a particular day leads to conspicuous downward slope of Nepse index. It happens so because real sector lags terribly behind in the economy. All sectors' healthy contribution solidifies economy and capital markets alike.

- **Reduce the level of information asymmetry**

A small and imperfect capital market like ours is always prone to malpractices and price manipulations. There have been instances when insiders, with their possession of key information, have indulged in price manipulation. Such conditions of information asymmetry can be highly discouraging for outside investors due to aberrant trading practices in capital markets.

- **Active participation of investors**

There is presence of a large number of gullible investors in the Nepalese capital market. They invest their hard-earned money on the basis of whims. One of the findings from primary data pinpoints that investors' lack of knowledge is the major reason for undersubscription of rights share. Before investing in a particular company's securities, investors should secure reliable information about the company's financial performance and the promoters' competence. Investors should keep themselves abreast about the developments in capital market by reading financial and business journals, publications and articles.

- **Lack of counselors on investment prospects**

Although some individuals suggest the big investors on informal basis, specialized firms or consultancies are not available to counsel on investment prospects. Professional counselors should be there to provide reliable information on new and promising investment opportunities for prospective investors and on creation of optimum investment portfolio for existing investors.

- **Streamline the regulation**

An authority such as SEBON should be empowered to regulate all aspects of capital markets. Given the nature of the financial sector in Nepal, an institution may be under the regulatory purview of different regulatory authorities such as NRB, CRO, and SEBON. Regulation should be based on clear guidelines issued for a particular capital market function.

- **Develop self-regulatory structure**

Self-regulation is conspicuously absent in Nepal's capital market. It, if exercised, constitutes a vital element of capital market for developing quality and integrity of a profession. Entities such as Nepal Banker's Association, Merchant Bankers' Association of Nepal etc. should do more on this regard.

- **Formulate liberal economic policies**

Favourable economic policies lead to increased savings and investment in capital markets. Policymakers should try to increase the supply of tradable securities by way of allowing a variety of market instruments which can cater to the different needs of the investors and companies, providing fiscal incentives and placing legal requirements for companies to go public.

- **Increase information disclosure**

Since capital markets are highly information sensitive, the importance of adequate information dissemination can not be overstated. In Nepalese capital market, financial data is not readily available nor are uniform accounting standards applied. SEBON, Nepse, NRB, etc. should proper flow of information on corporate financial performance as it helps to stabilize any speculative trends in the market.

- **Make rights fully transferable**

Section 2(7) of Securities Issue Directives-2008 mentions about transferability of rights possessed by promoters of a company. Lack of transferability of rights by general investors has been one of the causes for undersub32
scription of rights issues.

Annex-1

A1.1 Issue of Debenture and Rights

A1.1.1 Issue of Debenture

Table 1.1

Feature of Debenture Issues (from FY 1997/98 to FY 2007/08) in Nepal's Capital Market

FY.	Issuing Company	Issue Amount (Rs. in million)		Date of Issue (B.S.)	Maturity Period (years)	Coupon Rate	Subscription %	Issue manag
		Public offering	Private Offering					
1997/98	SRSML	93	-	1997/11/20	4	14%	18.42	NCML
2001/02	HBL	100	260	2002/06/18	7	8.5%	>100	NMB
2003/04	NIBL	100	200	2003/11/03	7	7.5%	102.28	Ace
2004/05	EBL	50	250	2005/04/20	7	6%	100	CIT
2005/06	BOK	50	150	2005/09/22	7	6%	133.31	NMB
2005/06	NIBL	80	170	2006/06/09	7	6%	100	Ace
2005/06	NIC Bank	50	150	2006/06/12	7	6%	100	Ace
2005/06	Nepal SBI Bank Ltd.	50	150	2006/07/04	7	6%	101.20	CIT
2006/07	NIBL	50	200	2007/06/12	7	6.25%	100	Ace
2007/08	NEA	150	1350	2008/02/14	5	7.75%	119	NMB
2007/08	KBL	80	320	2065/02/02	5	7.75%		Ace
2007/08	HBL	100	400	2065/03/08	7	8%		Ace
2007/08	NIBL	50	200	2065/03/12	7	8%		Ace
2007/08	Nabil Bank Ltd.	60	240	2065/03/29	10	8.5%		NCML & A

Source: SEBON report

A1.1.2. Issue of Rights

A1.2

Rights Share Issue from FY 1998/99 to FY 2007/08

Fiscal Year	**S.N.**	**Name of Companies**	**Right Issue Amount (Rs. In million)**
1998/99	1	Nepal Share Market Ltd.	30
Total			**30**
1999/2000	2	Necon Air Ltd.	89.6
	3	Paschimanchal Fin. Co. Ltd.	20
	4	Ace Finance Co. Ltd.	15
Total			**124.6**
2000/01	5	Narayani Finance Ltd.	12.58
	6	Everest Bank Ltd.	119.21
Total			**131.79**
2001/02	7	Bank of Kathmandu Ltd.	234
	8	Nepal Housing & Merchant Fin. Ltd.	15
	9	Ace Finance Ltd.	45
	10	Nepal SBI Bank Ltd.	287.87
	11	NIDC Capital Markets Ltd.	40
Total			**621.87**
2002/03	12	Nepal Inv. Bank Ltd.	57.24
	13	Nepal Share Markets Fin. Ltd.	60
	14	Mahalaxmi Fin. Ltd.	25

	15	Peoples Finance Ltd.	20
Total			**162.24**
2003/04	16	Alpic Everest Fin. Ltd.	20
	17	Siddhartha Finance Ltd.	20
	18	NB Finance & Leasing Co.	30
Total			**70**
2004/05	19	Nepal Bangladesh Bank Ltd.	359.92
	20	Annapurna Finance Co. Ltd.	20
	21	Nirdhan Utthan Bank Ltd.	15
	22	Nepal SBI Bank Ltd.	215.93
	23	Nepal Inv. Bank Ltd.	295.29
	24	National Finance Co. Ltd.	43.2
Total			**949.34**
2005/06	25	Development Credit Bank Ltd.	80
	26	Kumari Bank Ltd.	125
	27	Fewa Finance Co. Ltd.	30
	28	Om Finance Co. Ltd.	30
	29	Goodwill Finance Ltd.	25
	30	Janaki Finance Co. Ltd.	10
	31	Central Finance Ltd.	12
	32	Taragaon Regency Hotels Ltd.	446.45
	33	Machhapuchhre Bank Ltd.	165
	34	Kist Merchant Banking & Finance Ltd.	50
	35	Nepal Share Markets and Finance Ltd.	40
Total			**1013.45**
2006/07	36	Pokhara Finance Ltd.	20
	37	Lumbini Bank Ltd.	100
	38	Paschimanchal Bikash Bank Ltd.	28

	39	Alpic Everest Fin. Ltd.	20
	40	Peoples Finance Ltd.	40
	41	Chhimek Bikash Bank Ltd.	20
	42	Nepal Development Bank Ltd.	160
	43	Ace Finance Co. Ltd.	194
	44	Navadurga Finance Co. Ltd.	11
	45	Annapurna Finance Co. Ltd.	80
	46	Laxmi Bank Ltd.	122
	47	Capital Merchant Banking & Finance Ltd.	84
	48	Yeti Finance Ltd.	6.3
	49	Business Development Bank Ltd.	30
	50	Kist Merchant Banking & Finance Ltd.	100
	51	Siddhartha Bank Ltd.	100
	52	Lumbini Bank Ltd.	150
Total			**1265.3**
2007/08	53	Himalayan General Insurance	37.8
	54	Premier Insurance Co. Ltd.	39
	55	Sagarmatha Insurance Co.	23.6
	56	Nepal Awas Bikas Fin. Co.	70.5
	57	Guheshwori Merchant Banking & Finance Ltd.	37
	58	Gorkha Finance Ltd.	30
	59	Standard Finance Ltd.	72.6
	60	Shree Inv. & Finance Ltd.	16.8
	61	Nepal Housing & Merchant Finance Ltd.	80.4
	62	Int. Leasing & Fin. Ltd.	504
	63	ICFC Bittiya Sanstha	224.8

	64	Royal Merchant Banking & Fin. Ltd.	60.1
	65	Nepal Express Fin. Ltd.	30
	66	United Fin. Ltd	75
	67	Goodwill Finance Ltd.	50
	68	Kist Merchant Banking & Finance Ltd.	600
	69	Paschimanchal Fin. Co. Ltd.	27.8
	70	Prudential Bittya Sanstha Ltd.	50
	71	IME Fin. Institution Ltd.	50
	72	Nepal Share Markets & Fin. Ltd	240
	73	Central Finance Ltd.	24
	74	Premier Insurance Co. Ltd.	14.4
	75	Capital Merchant Banking & Finance Ltd.	161
	76	Sahayogi Bikas Bank Ltd.	10
	77	Annapurna Bikas Bank Ltd.	150
	78	Himchuli Bikas Bank Ltd.	60
	79	Business Development Bank Ltd.	150
	80	Gorkha Bikas Bank Ltd.	160
	81	Ace Dev. Bank Ltd.	96
	82	Sanima Bikas Bank Ltd.	64
	83	Siddhartha Dev. Bank Ltd.	50
	84	Bhrikuti Bikas Bank Ltd.	30
	85	Paschimanchal Bikash Bank Ltd.	47.5
	86	Nirdhan Utthan Bank Ltd.	39.5
	87	NMB Bank Ltd.	800
	88	Development Credit Bank Ltd.	806.4
	89	Laxmi Bank Ltd.	183
	90	Kumari Bank Ltd.	180

	91	Lumbini Bank Ltd.	250
	92	NIC Bank Ltd.	158.4
	93	Siddhartha Bank Ltd.	138
	94	Nepal Inv. Bank Ltd.	201.3
Total			**6092.9**

Annex-2

A2.1 Market Price of Share (MPS) of Sample Companies after Debenture and Rights Issues

A2.1.1 MPS in Cases of Debenture Issue

Table A2.1

MPS of Sample Companies before and after Debenture Issue

Sample Companies	Date of Debenture Issue	Before Debenture Issue (1-month before Issue)		After debenture issue (1-month after Issue)	
		Date	MPS	Date	MPS
HBL (1st issue)	2002/06/18	2002/05/16	1001	2002/07/08	940
NIBL (1st issue)	2003/11/03	2003/09/29	810	2003/11/25	815
EBL	2005/04/20	2005/03/21	776	2005/05/12	905
BoK	2005/09/22	2005/08/23	430	2005/10/08	475
NIBL (2nd issue)	2006/06/09	2006/05/09	1205	2006/07/03	1212
NIC Bank	2006/06/12	2006/15/15	550	2006/07/05	500
Nepal SBI	2006/07/04	2006/06/05	620	2006/07/26	638
NIBL (3rd issue)	2007/06/12	2007/05/14	1170	2007/07/05	1500
KBL	2008/05/15	2008/04/15	715	2008/06/05	955
HBL (2nd issue)	2008/06/22	2008/05/22	1730	2008/07/10	1970
NIBL (4th issue)	2008/06/26	2008/05/26	1788	2008/07/17	2640
Nabil Bank	2008/07/13	2008/06/12	5200	2008/07/13	6273

A2.1.2 MPS in Cases of Rights Issue

Table A2.2

MPS of Sample Companies before and after Rights Issue

Sample Companies	Date of Rights Issue	Pre-rights Issue (1-month before Issue)		Post-rights Issue (1-month after Issue)	
		Date	MPS	Date	MPS
KBL	2005/12/21	2005/11/17	380	2006/01/30	338
MBL	2006/05/25	2006/04/17	321	2006/06/29	323
LUBL	2006/08/13	2006/07/10	170	2006/09/18	167
AFCL	2007/02/09	2006/12/20	501	2007/03/21	510
LBL	2007/04/25	2007/03/15	545	2007/05/31	470
KMBFL	2007/05/23	2007/04/18	525	2007/06/25	570
SBL	2007/06/04	2007/05/03	632	2007/07/09	700
NMB Bank	2008/01/08	2007/12/06	3780	2008/02/25	961
NIBL	2008/01/29	2007/12/25	2200	2008/03/03	1540
GDBL	2008/05/26	2008/04/21	866	2008/06/26	950

Annex-3

A3.1 3-year Average EPS of Sample Companies

Table A3.1

3-year Average EPS before and after Debenture Issue

Sample Companies	Before Debenture Issue			Debenture Issue Year	After Debenture Issue		
	FY	EPS (Rs.)	Average EPS(Rs.)		FY	EPS (Rs.)	Average EPS(Rs.)
HBL	1998/99	86.07	87.57	2001/02	2001/02	60.26	52.92
	1999/00	83.08			2002/03	49.45	
	2000/01	93.57			2003/04	49.05	
NIBL (1st issue)	2000/01	33.17	35.44	2003/04	2003/04	51.70	50.18
	2001/02	33.59			2004/05	39.50	
	2002/03	39.56			2005/06	59.35	
EBL	2001/02	32.91	36.14	2004/05	2004/05	54.20	65.13
	2002/03	29.90			2005/06	62.80	
	2003/04	45.60			2006/07	78.40	
BOK	2002/03	17.12	24.91	2005/06	2005/06	43.67	49.04
	2003/04	27.50			2006/07	43.50	
	2004/05	30.10			2007/08	59.94	
NIBL (2nd issue)	2002/03	39.56	43.59	2005/06	2005/06	59.35	59.93
	2003/04	51.70			2006/07	62.57	
	2004/05	39.50			2007/08	57.87	

NIC Bank	2002/03	5.19	13.86	2005/06	2005/06	16.10	21.95
	2003/04	13.65			2006/07	24.01	
	2004/05	22.75			2007/08	25.75	
Nepal SBI	2002/03	11.47	13.01	2005/06	2005/06	18.27	28.65
	2003/04	14.26			2006/07	39.35	
	2004/05	13.29			2007/08	28.33	

Table A3.2

3-year Average D/E Ratio before and after Debenture Issue

Sample Companies	Before Debenture Issue			Debenture Issue Year	After Debenture Issue		
	FY	D/E Ratio	Average D/E Ratio		FY	D/E Ratio	Average D/E Ratio
HBL	1988/99	0	0	2001/02	2001/02	51.46%	37.50%
	1999/00	0			2002/03	33.87%	
	2000/01	0			2003/04	27.19%	
NIBL (1st issue)	2000/01	0	0	2003/04	2003/04	41.15%	35.14%
	2001/02	0			2004/05	25.42%	
	2002/03	0			2005/06	38.86%	
EBL	2001/02	0	0	2004/05	2004/05	38.98%	31.70%
	2002/03	0			2005/06	31.16%	
	2003/04	0			2006/07	24.97%	
BOK	2002/03	0	0	2005/06	2005/06	23.82%	19.62%
	2003/04	0			2006/07	20.14%	
	2004/05	0			2007/08	14.90%	

NIBL (2nd Issue)	2002/03	0	22.19%	2005/06	2005/06	38.86%	40.18%
	2003/04	41.15%			2006/07	42.60%	
	2004/05	25.42%			2007/08	39.08%	
NIC Bank	2002/03	0	0	2005/06	2005/06	26.09%	21.07%
	2003/04	0			2006/07	21.77%	
	2004/05	0			2007/08	15.34%	
Nepal SBI	2002/03	0	0	2005/06	2005/06	20.36%	17.23%
	2003/04	0			2006/07	17.19%	
	2004/05	0			2007/08	14.14%	

Table A3.3

3-year Average EPS before and after Rights Issue

Sample Companies	Before Rights Issue			Rights Issue Year	After Rights Issue		
	FY	EPS (Rs.)	Average EPS(Rs.)		FY	EPS (Rs.)	Average EPS(Rs.)
EBL	1997/98	21.29	25.82	2000/01	2000/01	31.56	31.46
	1998/99	21.31			2001/02	32.91	
	1999/00	34.85			2002/03	29.90	
BOK	1998/99	24.67	31.12	2001/02	2001/02	2.00	15.74
	1999/00	40.73			2002/03	17.72	
	2000/01	27.97			2003/04	27.50	
Nepal SBI	1998/99	13.98	21.47	2001/02	2001/02	9.61	11.78
	1999/00	41.74			2002/03	11.47	
	2000/01	8.69			2003/04	14.26	
DCBL	2002/03	10.41	17.30	2005/06	2005/06	13.68	11.81
	2003/04	19.22			2006/07	16.78	
	2004/05	22.27			2007/08	4.96	
MBL	2002/03	2.81	8.91	2005/06	2005/06	18.74	12.70
	2003/04	8.49			2006/07	9.02	
	2004/05	15.43			2007/08	10.35	

Annex-4

A4. Calculation of Theoretical Price of Stock after Rights Issue

$$P_e = \frac{P \times \# + P^S}{\# + 1}$$

Where,

P_e = Theoretical price of stock

P_o = Rights-on (Before rights issue) price of stock

P^s = Subscription price

\# = Number of rights required to purchase a new share

Table A4.1

Computation of Theoretical Price of Stock after Rights Issue

Companies	P_o (Rs.)	#	P^s(Rs.)	P_e (Rs.)
KBL	380	4	100	324
MBL	321	3.33	100	270
LUBL	170	5	100	158.33
AFCL	501	1	100	300.50
LBL	545	5	100	470.83
KMBFL	525	1	100	312.50
SBL	632	5	100	543.33
NMB Bank	3780	0.25	100	836
NIBL	2200	5	100	1850
GDBL	866	2	100	610.67

Annex-5

A5.1 Questionnaire

Dear respondent,

This questionnaire is a vital source of primary data collection for my thesis entitled "Financial Signaling due to Changes in Capital Structure" which I have been conducting for the partial fulfillment of the requirement for the degree of Master of Business Studies (MBS).

I humbly request you to answer to the questions included hereunder to the best of your knowledge. Your cooperation in this regard will help me explore the actual scenario related with financial signals emitted by debt-financing (debenture) and/or equity-financing (right share).

Let me firmly assure you that your responses and views will be used for the academic purpose only and will be kept highly confidential. I will appreciate your prompt response in this regard.

Thanking you in advance.

Shree Prasad Sapkota
Researcher
Shanker Dev Campus (Tribhuvan University)

Name of respondent:
Designation:
Organization:
Address:
Date:

Instruction: Please tick **[√]** *at the most correct options and write your views for the open-ended question.*

1. What is the main reason for Nepalese corporate houses to choose debt-financing?

[ ] To increase paid-up capital as per NRB's directive

[ ] Low interest rate

[ ] No control on company management from debenture holders

[ ] Availability of highly profitable investment opportunities

2. What is the most influential disadvantage of issuing debenture?

[ ] Involves risk due to long-term commitment

[ ] Involves committed charges whose non-payment is a default

[ ] Provisions must be made to repay debt within a fixed maturity period

[ ] Must possess high amount of assets for the sake of creditworthiness

3. Do you think debenture issues send positive signals to the capital market?

[ ] Yes

[ ] No

[ ] Not certain

4. If your company has got a highly profitable investment opportunity, what would be the source of financing in your suggestion?

[ ] Debt (debenture)

[ ] Equity

[ ] Indifferent

5. What kind of condition exists in Nepalese capital market as far as the phenomenon of information asymmetry (managers/insiders having better information than outsiders/investors) is concerned?

[ ] Low level of information asymmetry

[ ] Moderate level of information asymmetry

[ ] High level of information asymmetry

6. In what condition do you think debt financing is preferable to equity financing?

[ ] Availability of highly profitable investment opportunity

[ ] Strong creditworthiness and high amount of assets

[ ] Low market interest rate

[ ] Higher flotation cost for equity issue

7. Why do you think the non-banking sector is shy of debt-financing in Nepal?

[ ] Lack of highly profitable investment opportunities

[ ] Low amount of assets and creditworthiness

[ ] Discouraged by undersubscription of past debentures

[ ] Risk-averting nature of the management

8. In your opinion, will Nepalese corporate houses use debt-financing in a greater degree in future?

[ ] Yes

[ ] No

[ ] Cannot be anticipated

9. If a company announces to issue debenture, how would you, as a common shareholder of the company, respond to the announcement?

[ ] Purchase more shares

[ ] Sell existing shares

[ ] Take no action

10. What do you think is the main motive of right issue?

[ ] To increase paid-up capital

[ ] To bring MPS down to popular trading range

[ ] To increase number of outstanding shares

[ ] To provide capital gain to the investors

11. What may be the most prominent reason for occasional undersubscription of right issue in Nepal?

[ ] Lack of knowledge on part of the investors

[ ] Inadequate information by companies

[ ] Discouraging financial performance of the company

[ ] Non-transferability of right

12. What kind of signal, do you think, right issues send to the capital market?

[ ] Positive

[ ] Negative

[ ] Not certain

13. Some noteworthy knowledge gained from your experience on debt-financing and/or equity-financing, which you would like to share

……

……

……

……

A5.2 Primary Data Collection

Table A5.1

Responses to Questionnaire and Interview

Q. N.	Options and Respondents				Total
	I	II	III	IV	

1.	16(22%)	17(24%)	10(14%)	29(40%)	72(100%)
2.	15(21%)	20(28%)	30(42%)	7(9%)	72(100%)
3.	38(53%)	10(14%)	24(33%)	-	72(100%)
4.	47(66%)	11(15%)	14(19%)	-	72(100%)
5.	25(35%)	10(14%)	37(51%)	-	72(100%)
6.	34(47%)	4(5%)	27(38%)	7(10%)	72(100%)
7.	22(30%)	10(14%)	10(14%)	30(42%)	72(100%)
8.	45(62%)	7(10%)	20(28%)	-	72(100%)
9.	11(55%)	2(10%)	7(35%)	-	20(100%)
10.	45(62%)	9(13%)	6(8%)	12(17%)	72(100%)
11.	26(36%)	25(35%)	18(25%)	3(4%)	72(100%)
12.	51(71%)	3(4%)	18(25%)	-	72(100%)

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