# CHAPTER I

# INTRODUCTION

## 1.1 General Background of the Study

Capital Structure is a mix of a company's long-term debt, specific short-term debt, common-equity and preferred equity. The capital structure is how a firm finances its overall operations and growth by using different sources of funds. Capital Structure decision is one of the important decisions to be made by financial management. One of the main objectives of the financial manager is to ensure low cost of capital and hence maximize the shareholders wealth. Capital Structure is an effective tool for the management of the cost of capital. An optimal capital structure is reach at the point where cost of capital is lowest. But does such optimal capital structure exist? What are the potential determinants of optimal capital structure?

Capital Structure of a company has always been a concern of research for financial academician and management. After much research on Optimal Capital Structure and its determinants; it has still been debatable issue. Funds are collected through two sources debt and equity. It is still not clear as how these sources affect the value of the firm. There has been two schools of thoughts one pleads optimal structure of capital structure and other does not. Former school believes that judicious mixture of debt and equity capital can minimize the overall cost of capital and maximize the value of the firm. Hence, this school considers capital structure decision as relevant. Latter school of thought led by Modigliani and Miller contends that financing decision does not affect the value of the firm. As the value of the firm depends on the underlying profitability and risk of investment.

The pioneering study by MM (1958) shows that company’s value is not dependent on its financial structure. The authors conclude that a company’s greater or lesser value depends on the ability of its assets to generate value, it being irrelevant if the assets originate in internal capital or external capital. However, MM (1963), admit the

existence of taxes conclude that given tax benefits, companies have an advantage in using debt rather than using internal capital as they can benefit of debt tax shields.

Another theory that explains Capital structure is The Agency theory which argues that debt financing in the firm creates agency problem. As per the research by Jensen and Meckling (1976) cost exists due to conflict of interest. Here, debt agency costs arise due to a conflict of interest between debt provider on one side and shareholders and managers on the other side. Managers have the motivation to invest funds in risky business for shareholders' interest, because if the investment fails, the debt-holders are likely to bear the cost as the shareholders have limited liabilities. If the projects are undertaken, there is a chance of firm value to decrease and wealth transfer from debt holders to shareholders. This effect is called asset substitution effect. Other agency costs are underinvestment problem and free cash flow. In Underinvestment problem, if debt is risky (e.g., in a growth company), the gain from the project will accrue to debt holders rather than shareholders. Thus, management has an incentive to reject positive NPV projects, even though they have the potential to increase firm value. And in another problem, unless fresh cash flow is given back to investors, management has an incentive to destroy firm value through empire building and perks etc. Increasing leverage imposes financial discipline on management. Jensen and Meckling (1976) argue that the use of secured debt might reduce the agency cost of debt. The authors argue that an optimal capital structure can be obtained by trading off the agency cost of debt against the benefit of debt.

Other theories that further explain Capital Structure are Pecking Order Theory, Static Trade-off Theory and Bankruptcy Cost. The information asymmetry theory of capital structure is popularized by Myers (1984) where he argues that equity is a less preferred means to raise capital because when manager who are assumed to know better about true condition of the firm than investors issues new equity, investor believe that manager overvalue the firm and take advantage of it. As a result, investors will place a lower value to the new equity issuance. The pecking order

hypothesis suggests that firms are willing to sell equity when the market overvalues it .This is base on the assumption that managers act in the favor of the existing shareholders interest. Hence, they refuse to issue undervalued shares unless the value transfer from the old to new shareholders is more than offset by the net present value of the growth opportunity. Thus new shares will be issued only at higher price than that imposed by the real market value of the firm. Because of it, investors interpret the issuance of equity by a firm as a signal of overpricing. The existence of information asymmetries between the firm and investors causes the relative cost of finance to vary among different sources. Myers (1984) emphasizes that internal funds and external funds are used hierarchically which he refer as "Pecking Order theory". As per the theory firms prefer to finance new investment, first internally with retained earnings where information asymmetry does not exist, then with debt and finally through issuance of new equity. According to pecking order hypothesis, firms that are profitable and thus generate high earnings are accepted to use less debt capital than those that do not generate high earnings.

Bankruptcy costs are the cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. Bankruptcy probability increases with debt level as it increases the probability that the company might not be able to generate profit to payback the interest and loan increases. Bankruptcy cost can be both direct and indirect. Direct costs are the legal and administrative costs in the bankruptcy process while indirect costs are the loss in profits incurred by the firm as a result of unwillingness of stakeholder to invest further in the business.

The static trade-off theory of capital structure by Myers (1984) states the need to balance gains and costs of debt financing. As per this theory, optimal capital structure is obtained where the net tax advantage of debt financing balances leverage related costs such as bankruptcy. It values the company as the value of the firm if unlevered plus the present value of the tax shield minus the present value of bankruptcy costs

and agency costs. Most of the previous research on the determinants of borrowing decision of firms used to focus on the factors predicted by this theory which is based on trade-off between tax advantage of debt financing and the cost of financial distress.

Overall, the evidence from these studies lends support to the negative impact of business risk on corporate borrowing decisions. However, there are conflicting conclusions on the impact of other firm specific variables. There have been extensive researches on this topic in the context of developed countries. So it is difficult to support as which theory of capital structure is applicable to enlighten capital structure management in Nepalese firms and which determinants explain the capital structure management practices in Nepalese enterprises.

## 1.2 Statement of Problem

Is there any debt to equity ratio that can maximize the value of firm? If so what are the factors in determining the target debt-equity ratio for a given firm? In finance, the most debatable topic is capital structure. The main issue of debate revolves around the optimal capital structure and its determinants. Since the pioneering study by Modigliani and Miller (1958) on capital structure, many literature and research has been expanded by theoretical and empirical contributions. Much emphasis has been given to the literatures on the assumption made by MM, in particular by taking into consideration corporate taxes (Modigliani and Miller, 1963), personal taxes (Miller, 1977), Bankruptcy costs (Stiglitz, 1970; Titman, 1984), agency costs (Jensen and Meckling, 1976), and information asymmetries (Myers, 1984).

Modigliani and Miller Theorem contend that financing decision does not affect the total cash flow that a firm can distribute to debt and equity holders, the decision do not affect the value of the firm's debt and equity in absence of transaction costs. This implies that a manager who is considering as which source of financing will be

cheaper; primarily with junk bonds or with equity and a small amount of high-quality debt should stop worrying as neither of the decision is superior to the other.

But later it was found that the premise of the Modigliani and Miller theorem, that capital structure decision has no effect on cash flows does not hold true in the real world. Because the interest in debt is tax deductible so the after tax cash flows of firms increase when they include more debt in their capital structures. This has lead firms to favor debt over equity financing. However, the capital structure choice becomes more complicated when both personal and corporate taxes are considered. This is because personal taxes tend to favor the use of equity in a firm's capital structure as a large portion of the returns on stock are taxed at a capital gain rate, which is generally more favorable than the ordinary tax rate that applies to interest income.

The financial structure of a corporation provides the market information about the firm and the market value of the firm increases with the level of debt. From this statement if the manager raises level of debt, then it is because of their positive expectation for the future cash flow of the company permits to meet firm's obligation that is the risk of insolvency is not relevant. Some authors, like Leland and Pyle (1977), Heinkel (1982) and Harris and Raviv (1990), have stated the value of the company and the size of the debt are positively correlated.

Two main theories that have currently dominated the capital structure debate are – Trade-off Theory (TOT) and Pecking Order Theory (POT). According to Stewart C. Myers, the trade off theory states that firms seek debt levels that balance the tax advantages of additional debt against the costs of possible financial distress. The pecking order theory states that the firm will borrow rather than issue equity when internal cash flow is not sufficient to fund firm's capital expenditure.

With respect to empirical evidences on the topic of factors explaining company leverage, many studies and researches have been carried out in the United States of

America. The conclusions of the studies provide important result for in knowledge about the capital structure of the firms. Even though, the results cannot be considered definite. For the factors established in these studies some variables show positive result with the leverage while other negative.

Firm size has been one of the most commonly used variables in the study for explaining company's level of debt. The studies have made it clear that the size of the firm is positively related to debt as a source of financing (Crutchley and Hansen, 1989; Harris and Raviv, 1991). This is because that larger the firm is, the more information is expected to be available about it in the market which reduces the level of information asymmetries, making favorable condition to obtain financial resources from lender.

The reputation of the firm in the market may affect its leverage sources, as it reduces conflict between the company and its lender. The firm paying its obligations on time enjoys good reputation which eliminates conflicts with creditors. Myers (1977) has stated that the companies that are most concerns about having a reputation for being honest are those that expect to remain in the market for a long time.

Tangibility of assets of the firm can be taken as representative of real guarantee to the creditors. These assets influences the level of debt as these increases warrantees of the firm to satisfy its obligation arising from contracted debt.

Companies with greater future growth opportunities have lower leverage ratio than those with lower growth opportunities as financing through shares reduces the problem of under investment associated by financing debt. Myers (1977) states that companies faced with high debt levels and good opportunities, and acting to protect shareholders, directors would prefer not to carry out some positive investment projects if the profit goes into the hands of bondholders.

The "Pecking Order Theory" (Myers, 1984; Myers and Majluf, 1984) in their study argued that because of management preference for internal financing, companies with

a higher volume of internal financing use leverage funding less than those with a lower level of internally generated resources. This shows negative relationship between level of debt and internally generated resources.

Stewart Myers has suggested that corporate capital structure are largely unplanned outcomes of individual financing decisions in which manager follow a financial pecking order that is a financing rule in which retained earnings are systematically preferred to outside financing and debt is preferred to equity when outside funding is to be used. According to Myers, managers making financing decisions are not really thinking about a long-run target debt-equity ratio. So, they choose what at the time appears to be the lowest cost financing source, generally debt, with little thought about the future consequences of the choices.

There has been remarkable progress in theories of capital structure as though we have not been able to pinpoint certainly as what capital structure maximizes firm's value; we have learned a lot about the nature of trade-off between debt and equity, and between different kinds of debt. Hence, every financial executive must consider these facts in making financing decision.

In this study following issues have been dealt:

i. Does Nepalese Corporation practice capital structure management?
ii. Are there any important factors that determine capital structure of Nepalese Enterprises?
iii. What are the views of financial manager in respect of capital structure management of Nepalese firms?
iv. What are the views of financial officers in respect of capital structure management of Nepalese firms?

## 1.3 Objective of the Study

The main objective of this study is to analyze determinants of capital structure management in Nepalese firms. The specific objectives are as follows:

i. To measure the degree of sensitivity of seven different factors namely, firm size, growth rate, profitability, liquidity, non-debt tax shield and volatility in determining the capital structure in Nepalese firms.
ii. To examine capital structure management practices in Nepalese firms.
iii. To find the views of financial managers in respect of capital structure management of Nepalese firms.
iv. To evaluate the relationship between earning capacity and capital structure.

## 1.4 Limitation of the Study

The study initially was planned to analyze at least 10 years data from at least 10 companies but the required data cannot be obtained. The data for the study have been collected from the concerned firm and SEBON and most of these firms have the provision of keeping five years data. So, the highest number of data for the study is nine for one firm. So, as there is not consistency in the period of the data collected average for each variable from the available data will be calculated for the purpose of the study. In addition following are the limitation of this study.

i. Only seven companies from private sector are taken for the study. As the number taken for the study is not sufficient, the conclusion derived from the study cannot be generalized.
ii. The study period covers from 5 - 9 years only.
iii. The information from the primary source is based on the response from 50 respondents only. The authenticity of the study result is also depends on their response.
iv. The result of the study is concluded on the result from regression equation. There are many other tools available which can be used in this respect.

## 1.5 Organization of the Study

The study has been divided into five main chapters. These are as follows:

1. Introduction: The first chapter includes general background, statement of problem, objective of study, limitation of the study and organization of the study.

2. Review of Literature: The second chapter deals with conceptual framework relevant to the capital structure management. Review of past studies, findings of articles, related books, reports and thesis has been included in this chapter.

3. Research Methodology: The third chapter contains research methodology employed in the study. It includes nature and sources of data, data collection procedures, tools and methods of analysis and definition of key terms.

4. Presentation and Analysis of Data: The fourth chapter contains presentation and analysis of data. In this chapter, rough data are collected and presented in tables. Analysis and interpretation of data have been performed thereafter.

5. Summary, Conclusion and Recommendation: The fifth chapter contains summary and conclusion of the study. After that all necessary recommendation are presented.

At the last part of the study, a bibliography has been included. All necessary appendixes are also included after bibliography.

# CHAPTER II

# REVIEW OF LITERATURE

## 2.1 Conceptual Framework

Capital structure is a mix of different securities as a source of funds to invest in its assets. A firm's basic source is the stream of the cash flows produced by its assets. When a firm is totally financed by common stock, all the cash flows from its assets belong to the stockholder. If it issues both debt and equity, cash flow need to split into two streams, one goes to the debt holder which is relatively safe as fixed amount are to be paid to them and another goes to the stockholder which are more risky. The firm can issue dozen of distinct securities combinations, but the firm attempts to find a particular combination that maximizes its overall value. Is there a proper mix of debt and equity that can maximize the firm value? And if so what are the significant factors in determining the target leverage ratio for a given company?

The capital structure debate is made more interesting and confusing at the same time is that the theories lead to such different, and in some ways dramatically opposed, decisions and outcomes. For example, some finance scholars who have followed Modigliani and Miller contends that financing decision does not affect the value of the firm as they have no material effects on corporate market values. Another group of scholar holds that that judicious mixture of debt and equity capital can minimize the overall cost of capital and maximize the value of the firm. They added that the corporate manager making financial choices attempt to balance tax shield of greater debt against potentially large cost of financial distress, including those arising from corporate underinvestment. On this view other have argued that if too much of debt can destroy value by causing financial distress and underinvestment then too little debt especially in large and mature companies can lead to overinvestment and low return on capital.

There is yet another group who argues that corporate managers making financial decisions are concerned primarily about the signaling effects of such decisions. As per this effect the tendency of stock prices to fall significantly in response to announcement of common stock offerings - that can make such offering quite expensive for existing shareholder and also led to rise in response to leverage increasing recapitalization. Professor Stewart Myers, on the basis of this signaling argument has suggested that corporate capital structure are the largely unplanned outcomes of individual financing decisions in which managers follow "pecking order" – a financing rule in which retained earnings are systematically preferred to outside financing and debt to equity when outside funding is required.

According to Myers, corporate managers making financial decisions are not really thinking about a long run debt target ratio. Instead, they take the path of least resistance and choose what at the time appears to be the lowest-cost financing – generally debt – with little thought about the future consequences of their choices.

### 2.1.1. Capital Structure Irrelevance - Modigliani and Miller (MM Theory)

In 1958, Modigliani and Miller laid an important foundation for a positive theory of capital structure by developing the implication of market equilibrium for optimal debt policy. The authors stated that given the firm's investment policy and ignoring taxes and contracting costs, the firm's choice of financing policy does not affect the current market value of the firm. Their capital structure irrelevance proposition demonstrates that the firm's choice of financing policy cannot affect the value of the firm as it does not affect the probability distribution of the total cash flows to the firm. The total value remains same that is the value of all its sources of funding, which is similar to enterprise value (debt + equity).

Much of the early literature is concerned with the proposition that the market value of a firm is unaffected by its financing decisions, before that, it was believed that the judicious mix of debt and equity capital, i.e. financial leverage, in the capital structure

decreases the overall cost of capital, increases the value of the firm and help in determine optimal capital structure. So, before late 50's researcher used arbitrage arguments. The general idea is that if the financing decisions of a firm affect its market value, there are arbitrage opportunities that can be used to produce costless instantaneous increase in wealth. Since the existence of such opportunities is inconsistent with equilibrium in a perfect capital market, one can conclude that the market value of a firm is unaffected by its financing decisions. In all of the arbitrage proofs of the market value proposition, there are following common assumptions.

i. There are no corporate or personal income taxes and no bankruptcy costs.
ii. There are only two types of securities debt and equity.
iii. Issuing debt to repurchase the stock or issuing stock to pay the debt can change the leverage ratio.
iv. There are no transaction costs.
v. There exists 100 percent dividend payout ratio. In other words, all the incomes available to shareholders are paid out as divided.
vi. The expected values of the subjective probability distributions of expected future operating earnings for each company are the same for all investors in the market.

In 1958 Franco Modigliani and Merton H. Miller (MM) addressed the capital structure issue in a rigorous, scientific fashion, and they set off a chain of research that continues to this day. They demonstrated that given the firm's investment policy does not affect the current market value of the firm. Their capital structure irrelevance proposition demonstrates that the firm's choice of financing policy cannot affect the value of the firm so long as it does not affect the probability distribution of the total cash flows to the firm.

The value of any firm is established by capitalizing its expected net operating income (NOI = EBIT) at a constant rate that is appropriate for a firm's risk class.

Accordingly, $V_L = V_U = EBIT / WACC$

Here, $V_L$ and $V_U$ designate the value of levered and unlevered firms in a given risk class and the constant rate, WACC, is the required rate of return for an unlevered, or all-equity firm.

Since, the value (V) is a constant under MM theory, the value of the firm is independent of its leverage. This also implies that the weighted average cost of capital to any firm, levered or not, is completely independent of its capital structure and equal to the cost of equity to an unlevered firm in the same risk class. This is known as MM's Proposition I and is identical to the NOI approach.

MM Proposition II states that as the firm's use of debt increases, its cost of equity also raises, and in a mathematically precise manner. Taken together, the two MM Proposition imply that the inclusion of more debt in the capital structure will not increase the value of the firm, because the benefits of cheaper debt will be exactly offset by an increase in the cost of equity. Thus, MM theory states that in a world without taxes, both the value of firm and its cost of capital are unaffected by its capital structure.

Accordingly, $K_L = K_{U+} (K_u - K_d)(D/S)$

Another theory of capital structure, suggested by David Durand, is the Net Operating Income (NOI) Approach. The NOI approach assumes that the equity holders want to compensate for higher leverage risk with higher rate of return. With this assumption, this approach suggests that the cost of equity increases as the degree of leverage increases and higher cost of equity offsets the advantage of using cheaper debt fund which results no effect at all on weighted average cost of capital. The NOI approach to the valuation argues that the overall capitalization rate and cost of debt remain unchanged irrespective of change in leverage. The essence of this approach is that the capital structure decision of the firm is irrelevant. Any change in leverage will not lead to change in total value of the firm and the market price of share.

### 2.1.2 Towards an Optimal Financing Policy

MM's original work published in1958, assumed a zero corporate tax rate. In Modigliani and Miller (1963), they published a second article that argued that since the corporate tax allows the deduction of interest payment in calculating taxable income, the more debt in the capital structure, the lower the corporate tax liability, the higher after tax cash flows, the greater the market value of the firm. So, debt financing is advantageous.

The MM Proposition when corporations are subject to income taxes follows:

**Proposition I**

The value of a levered firm is equal to the value of an unlevered firm in the same class plus the gain from leverage, which is the value of the tax saving and which equals the corporate tax times the amount of debt the firm uses.

Therefore, $V_L = V_U + TD$

The important point here is that when corporate taxes are introduced, the value of the levered firms exceeds that of the unlevered firm by the amount TD.

**Proposition II**

This proposition states that the cost of equity rise proportionately with the increase in the leverage in order to compensate in the form of premium for bearing additional risk arising from the increase in leverage. It assumes that only the equity holders adjust the capitalization rate for the degree of financial leverage risk. It means that the cost of equity increases as debt-equity ratio increases. The cost of debt does not respond to changed in debt-equity ratio and it remained constant.

The cost of equity to a levered firm is equal to the cost of equity to an unlevered firm in the same risk class plus a risk premium whose size depends on the differential

between the cost of equity and debt to an unlevered firm, the amount of financial leverage, and the corporate tax rate.

Therefore, $K_{SL} = K_{SU} + (K_{SU} - K_d)(1 - T)(D/S)$

### 2.1.3. The Miller Model

MM included corporate taxes in the second version of their model but they have not extended the model to analyze the effects of personal taxes. However, in 1976, Merton Miller, in his presidential address to the American Finance Association did introduced a model design to show how leverage affects the firm's value when both personal and corporate taxes are considered. When personal taxes are included, and under the same set of assumptions used in the MM models, the value of an levered firm will be less than suggested by MM.

In this paper, Miller argued that firms in the aggregate would issue a mix of debt and equity securities such that before tax yields on corporate securities and the personal tax rates of the investor who bought these securities would adjust until equilibrium was reached. At the equilibrium, $(1 - T_d)$ would equal $(1 - T_c)(1 - T_s)$, and hence, the tax advantages of the firm would be exactly offset by personal taxation, and capital structure would have no effect on a firm's value or its cost of capital. Thus, according to Miller, the result obtained from the original MM zero-tax model is correct.

Therefore, $$V_L = V_U + \left[1 - \frac{(1 - T_c)(1 - T_s)}{(1 - T_d)}\right] * D$$

Where, $T_c$ = Corporate tax tare

$T_d$ = Personal tax rate on debt income

$T_s$ = Personal tax rate on share income.

### 2.1.4. Agency Problems and Debt Financing

In agency-cost models, financing decisions affect the value of the firm because financing decisions are influenced by manager's behavior of the firm that affects profitability. Hence, Jensen and Meckling (1976) argue that higher leverage allows a firm's manager to hold a larger fraction of its common stock. So, holding of large fraction of its common stock reduce agency problems by aligning the manager's interests more closely with the interests of other stock-holders. As per them debt financing increases agency cost due to conflict of interest between debt provider on one side and shareholders and managers on the other side. Myers (1977) suggests that leverage can cause firms to under invest because the gains from investment are shared with the firm's existing risky bonds.

According to them, although the goal of the firm is the maximization of shareholders wealth, the agency problem may interfere in the implementation of this goal. The agency problem arises from the separation of the management and ownership of the firm. A large firm may be operated by professional managers who have little or no ownership in the firm. Because of this separation of ownership and decision makers, managers may make decisions that are not in line with the goal of maximization of shareholders' wealth. They may work with less enthusiastic and attempt to benefit themselves in terms of salary and perquisites at the expense of shareholders. This behavior by managers initiate consuming an excessive amount of perks, shrinking of their responsibilities and investing in negative net present value (NPV) projects that offer personal diversification. This describes the gist of "agency problem".

Thus, the firm's managers can be properly thought of as agents for the firm's stockholders. To ensure that agent- manager act in the shareholders' best interests requires that they have (1) proper incentives to do so and (2) that their decisions are monitored.

Another part of agency cost is through introduction of debt in the firm. There exist difference in interest among the debt holder, share holder and the managers. Introduction of debt in the firm reduces the risk of the firm. Manger who actually works for the maximization of shareholders wealth have the motivation to invest funds in risky business for shareholders' interest, because if the investment fails, the lender are likely to bear the cost as the shareholders have limited liability. So, conflict between shareholders and bondholders is natural. Existing investors in the firm's bonds could logically take a dim view of such an investment policy. A change in the risk structure of the firm's assets would change the business risk exposure of the firm. This could lead to a downward revision of the bond rating the firm currently enjoys. A lowered bond rating in turn lowers the current market value of the firm's bond. Hence it is obvious that bondholders would be unhappy with this result.

To reduce this conflict of interest, the bondholders and stockholders may agree to include several protective covenants in the bond contract. But these bond covenants may be thought of as restrictions on managerial decision-making. These covenants restrict payment of cash dividends on common stock, limit the acquisition or sale of assets, or limit further debt financing. To make sure that the protective covenants are complied with by the management means that monitoring costs are incurred. Like all monitoring costs, they are borne by common stockholders. Further, like many cost, they involved the analysis of important trade-off. Hence, the benefit from the use of debt finance should not be less that agency cost of such finance.

Another issue to be considered is the presence of monitoring costs at low levels of leverage and at higher levels of leverage. When the firm operates at a low leverage ratio, there is little need for bondholders to insist on a long list of bond covenants. There is no such financial risk to require that type of activity. The firm will likewise benefit from low explicit interest rates when leverage is low. However, when the leverage ratio is high, it is logical for bondholders to demand a great deal of monitoring. This increase in agency costs will raise the implicit costs (the true total

cost) of debt financing. So, it seems logical to suggest that monitoring costs will rise as the firm's use of financial leverage increases. Similar to the likelihood of firm failure (financial distress) raises a firm's overall cost of capital, so do agency costs. This means that total firm value (the total market value of the firm's securities) will be lower owing to the presence of agency costs of debt. Taken together, the presence of agency costs and the cost associated with financial distress argue in favor of the concept of an optimum capital structure for the individual firm.

### 2.1.5 Capital Structure with Financial Distress and Agency Costs

Financial distress occurs when promises to creditors are broken or honored difficulty. Sometimes financial distress leads to bankruptcy. Therefore, financial distress is costly. Investors know that levered firms may fall into financial distress, and they worry about it. That worry is reflected in the current value of the levered firm's securities. The agency cost is associated with the use of debt, and it involves the relationship between firm's stockholder and its bondholders. In the absence of any restrictions, a firm's management would be tempted to take actions that would benefit stockholders at the expense of bondholders.

Because of the possibility that stockholders might try to take advantage of bondholders in any ways, bonds are protected by restrictive covenants. These covenants hamper the corporation's legitimate operation to some extent. In addition to that, the company must be monitored to insure that the covenants are being obeyed, and the costs of monitoring are passed on to the stockholders in the form of higher debt costs. The costs of lost efficiency and monitoring together are called agency costs and the existence of these costs increase the cost of debt to the firm and thus reduce the advantage of using leverage.

If the MM model with corporate taxes were correct, a firm's value would rise continuously as it moved from zero debt towards 100 percent debt. In the valuation equation of MM, $V_L = V_U + TD$, $V_L$ and TD is maximized if debt (D) is at a

maximum. But if the financial distress costs and agency costs are considered, the result may be significantly different. Therefore, MM's relationship between a firm's value and its use of leverage should look as follows

$V_L = V_U + TD$ – (PV of financial distress costs) – (PV of agency costs).

### 2.1.6 Trade-Off Theory and Capital Structure

Both models, MM with corporate taxes and the Miller model after adjusting the effect of financial distress and agency costs can be described as Trade-off Model. The optimal capital structure can be found by balancing the tax shield benefits of using debt against the financial distress costs and agency costs of leverage, and hence the cost and benefits are traded off against one another. In other words, the static trade-off theory of capital structure is obtained where the net tax advantage of debt financing balances leverage related cost such as bankruptcy. It determines an optimal capital structure by adding various imperfections, including taxes, cost of financial distress, and agency costs, but retains the assumptions of market efficiency and symmetric information. Some of the imperfections that lead to an optimal trade-off are as follows:

According to trade-off model each firm should set a target capital structure that balances the costs and benefits of leverage, because such a structure will maximize the value of the firm. Financial managers often think of the firm's debt-equity decision as a trade-off between interest tax shields and the costs of financial distress and agency costs. Of course, there is huge controversy about how valuable interest tax shields are and what kinds of financial troubles are most threatening.

The trade-off theory of capital structure recognizes that target debt ratio vary from firm to firm. Firms with high levels of tangible assets will be in a position to provide collateral for debts. If the company then defaults on the debt, the assets will be seized but the company may be in a position to avoid bankruptcy. It is expected, therefore,

that companies with high levels of tangible assets are less likely to default and will take on relatively more debt resulting in a positive relationship between tangibility and financial leverage. So, companies with safe, tangible assets and plenty of taxable income to shield ought to have high target debt ratio. Unprofitable companies with risky, intangible assets ought to rely on equity financing.

### 2.1.7 The Pecking Order Theory of Financing Choices

The pecking order theory of capital structure, developed by Meyers and Majluf (1984), starts with the asymmetric information, indicating that managers know more about their companies' prospects, risks and values than do outside investors. In Myers and Majluf (1984) and Myers (1984), outside investors rationally discount the firm's stock price when managers issue equity instead of riskless debt. So, to avoid this discount, managers avoid equity whenever possible. The authors' model predicts that managers will follow a pecking order, using up internal funds first, and then use debt that too secured debt as opposed to risky debt and firms will only issue common stocks as a last resort. Hence, Myers (1984) emphasizes that internal funds and external funds are used hierarchically. In the absence of investment opportunities, firms retain profits and build up financial slack to avoid having to raise external finance in the future.

This is due to transaction costs or flotation costs and the resulting agency costs of issuing new securities. So as per this theory firms prefer to finance new investment, first internally with retained earnings. When retained earnings is not sufficient, debt financing is next choice before considering new stocks. The reason is that the flotation costs of debt issuing are lower than those of equity issuing.

In transaction that takes place in financial markets, one party does not know all that one needs to know about other party to make correct decisions. The inequality of the information that each party has is called asymmetric information. Lack of information created problem in the financial system. Asymmetric information affects the choice

between internal and external financing and between new issues of debt and equity securities. This leads to Pecking Order, in which investment is financed foremost using internal funds then by issue of debt and finally with new issue of equity.

The pecking order theory would indicate that the profitability of a firm affects its financing decisions. If it issues debt, this means that the firm has an investment opportunity that exceeds its internally generated funds. So, changes in the capital structure often serves as a signal to outsiders about the current situation of the firm as well as the managerial expectations concerning future earnings. This is called signaling theory. The debt offering is believed to reveal information the management of a firm is expecting about future cash flows if it will cover the debt costs, however, the bankruptcy fears still impact the signal and intensify the cost of this signal.

In the pioneering work of Myers and Majluf (1984) showed that, if investors are less well informed that current firm insiders about the value of the firm's assets, then equity may be mispriced by the market. If the firms are required to finance new projects by issuing equity, under pricing may be so severe that new investors capture more than the NPV of the new project, resulting in a net loss to existing shareholders. In this case the project will be rejected even if its NPV is positive. This underinvestment can be avoided if the firm can finance the new project using a security that is not so severely undervalued by the market. For example, internal funds or riskless debt involve no undervaluation and therefore, will be preferred to equity by firms in this situation. Myers (1984) suggests that issuing debt secured by collateral may reduce the asymmetric information related costs in financing. The difference in information sets between the parties involved may lead to moral hazard problem (hidden action) and/or diverse selection (hidden information). Hence, debt secured by collateral may mitigate asymmetric information related costs.

Capital structure choice also depends on the firm's investment opportunities and its profitability. Highly profitable firms might be able to finance their growth by using

retained earnings and by maintaining a constant debt ratio. In contrast, less profitable firms will be forced to report to debt financing. Titman and Wessels (1988) and Marsh (1982) report results that are consistent with the notion that larger firms have higher debt ratios. There is also strong empirical evidence for the view that there is negative relation between profitability and debt ratio that supports pecking order theory. Similarly, the finding of Rajan and Zingales (1995) lend strong support for the negative relationship of profitability and debt.

## 2.2 Definition of Variables

There are several factors that determine the capital structure of the firms. These factors are size of the firm, growth opportunities, non-debt tax shield, profitability, liquidity, collateral value of assets, volatility-risk etc. This section presents a brief discussion of these attributes which has been used in this study.

**Firm Size (FS)**

The bankruptcy cost theory explains positive relationship between capital structure and size of the firm. It has been suggested by number of authors that firms size is positively related to leverage ratio. Warner (1977) and Ang et al. (1982) provide evidence that suggests that direct bankruptcy costs appear to constitute a larger proportion of a firm's value as that value decreases. They also suggest that relatively large firms tend to be more diversified and less prone to bankruptcy so large firms should be more highly leveraged. According to Titman and Wessels (1988) relatively large firms tend to be less prone to bankruptcy.

Most empirical studies report a positive sign for the relationship between size and leverage. In this study the natural logarithm of sales is used as a proxy for the size of firms. This measure is in line with other studies in this area (e.g. Titman and Wessels, 1988; Rajan and Zingales, 1995). Their argument suggests that there should exist positive relationship between firm size and leverage ratios of the firms.

**Growth Opportunities (GR)**

The agency cost theory explains negative relation between the growth rate and capital structure. Agency cost theory suggests that equity controlled firms have a tendency to invest sub-optimally to expropriate wealth from the enterprises' bondholders. The agency cost is likely to be higher for enterprises in growing industries which have more flexibility in their choice of future investment. Hence, growth rate is negatively related with long-term debt level.

Myers (1977) suggests that the amount of debt issued by a firm is inversely related to the growth opportunities consisting of future investment opportunities, which would increase the value of the firm when undertaken. It is argued that firms financed with risky debt pass up some of these valuable investment opportunities in some state of nature. Titman and Wessels (1988) have point out that firms in growing industries incur higher agency costs since they have more flexibility in taking future investments. It is also suggested that although growth opportunities are capital assets which add value to a firm, they cannot be collateralized and do not generate current income.

Rajan and Zingales (1995) find a negative relationship between growth opportunities and leverage. They suggest that this may be due to firms issuing equity when stock price is high. Titman and Wessels (1988) suggest that the growth includes capital expenditure over total assets and the percentage change in the total assets can be used as suitable proxy to measure the growth of the firm and the same measure is used in this study.

**Non-Debt Tax Shield (NDTS)**

Some investment may generate non debt tax benefits which are unrelated to how firms finance these investments. Although these investments do not consist of any debt related costs they act as substitutes for tax shields. DeAnglo and Masulis (1980)

present a model of capital structure that incorporates the impact of corporate taxes, personal taxes, and non-debt-related corporate tax shields. In this model non-debt tax shields serve as a substitute for interest expenses that are deductible in the calculation of the corporate tax. Therefore, and inverse relationship is expected to exist between the amount of the non-debt tax shields and leverage. Following Titman and Wessels (1988), the ratio of annual depreciation expenses to total assets is considered as a proxy for non-debt tax shields.

**Profitability (PFT)**

Relationship between leverage and profitability of the firm is one of the main theoretical controversies concern. Myers (1984) and Myers and Majluf (1984) states that firm prefer retained earnings as their main source of financing investment (Pecking order theory of capital structure) where the second preference is debt financing, and last comes new equity issues. All things being equal, the more profitability of the firms are, the more internal financing the firm will have, and therefore we should expect a negative relationship between leverage and profitability of the firms. This relationship is one of the most systematic findings in empirical literature (Harris and Raviv, 1991; Rajan and Zingales, 1995).

However, in trade-off theory of capital structure framework, an opposite conclusion is expected. The static trade-off hypothesis pleads for the low level of debt capital of risky firms (Myers 1984). The higher profitability of firm implies higher debt capacity and less risky to debt holders. So, as per this theory, capital structure and profitability are positively associated.

In this sense, profitability allows the firm to use retained earnings rather than external finance and a negative association between profitability and leverage would be expected. Following Titman and Wessels (1988), in this study profitability is measured as ratio of the earnings before interest and tax and depreciation (EBITD) to total assets.

**Liquidity (LQD)**

Liquidity position of the firms has a mixed impact on the capital structure decisions of the firms. First, firms with higher liquidity ratio might support a relatively higher debt ratio due to greater ability to meet short-term obligations when they fall due. This would imply a positive relationship between a firm's liquidity position and its debt ratio. On the other hand, firms with greater liquid assets may use these assets to finance their investment. Therefore, the firm's liquidity position should exert a negative impact an its leverage ratio. Moreover, the liquidity of the company's assets can be used to show the extent to which these assets can be manipulated by shareholders at the expense of bondholders. Here, the ratio of current assets to current liabilities as a proxy for the liquidity of the firm's assets.

**Collateral Value of Assets (CVA)**

Most capital Structure theories argue that the types of assets owned by a firm in some way affects its capital structure choice. Tangible assets are likely to have an impact on the borrowing decisions of a firm because they are less subject to information asymmetries and usually they have a greater value the intangible assets in case of bankruptcy. Additionally, the moral hazard risks are reduced when the firm offers tangible assets as collateral, because this constitutes a positive signal to the creditors who can request the selling of these assets in the case of default. As such, tangible assets constitute good collateral for loans. A firm can increase the value of equity by issuing collateralized debt when the current creditors do not have such guarantee. As firm has incentive to do so and one would expect a positive relationship between the tangible assets and leverage of the firms.

Based on the agency problems between managers and shareholders, Harris and Raviv (1990) suggest that firms with more tangible assets should take more debt. This is due to the behavior of managers who refuse to liquidate the firm even when the liquidation value is greater than the value of the firm as a going concern.

From pecking order theory perspective, firms with few tangible assets are more sensitive to information asymmetries. These firms will thus issue debt rather than equity when they need external financing (Harris and Raviv, 1991), leading to an expected negative relationship between the tangible assets and leverage. Most empirical studies conclude to a positive relationship between tangible assets and leverage. In this study, following Titman and Wessels (1988), the ratio of inventory plus gross plant and equipment to total assets is taken as proxy for the collateral value of assets.

**Volatility – Risk (VOL)**

Many authors have included a measure of risk as an explanatory variable of the leverage . Leverage increases the volatility of the net profit. Firms that have high operating risk can lower the volatility of net profit by reducing the level of debt. A negative relationship between operating risk and leverage is expects from pecking order theory perspective. In this study, according to Titman and Wessels, 1988, the percentage change in operating profit is used to measure the volatility-risk.

## 2.3 Review of International Literature

**"The Determinants of Capital Structure choice"** by **Sheridan Titman and Roberto Wessels** (1988); the research paper analyzed the explanatory power of some of the recent theories of optimal capital structure. The study extended empirical work on capital structure theory in three ways. First, this study examined a much broader set of capital structure theories, s, many of which have not previously been analyzed empirically. Second, since the theories have different empirical implications in regard to different types of debt instruments, the authors analyze measures of short-term, long-term, and convertible debt rather than an aggregate measure of total debt. Third, the study uses a factor-analytic technique that mitigates the measurement problems encountered when working with proxy variables. The authors had considered following variables for the purpose of their study are:

- Collateral  Value of Assets
- Non-Debt Tax Shields
- Growth
- Uniqueness
- Industry Classification
- Size of the firm
- Volatility of earnings
- Profitability

The above mentioned variables were analyzed using the data over the 1974 through 1982 period. The output of the study was consistent with the existing theories. They found that debt levels are negatively related with the uniqueness of the firm's line of business. The result is also consistent with the previous study of Titman that firms that can potentially impose high cost on their customer, workers, and suppliers in the event of liquidation have lower debt ratio. The result also indicated that transaction costs as an important determinant of capital structure choice. Short-term debt ratio was found to be negatively related to the firm size. The study did not provide support for an effect on debt ratios arising from non-debt tax shield volatility, collateral value of assets and future growth of the business.

In 1979, **Michael G. Ferri and Wesley H. Jones** in their study - **"Determinants of financial structure: A new methodological approach"**; investigated the relationships between a firm's financial structure and its industrial class, size, variability of income, and operating leverage. The methodology used in this paper was new to this area of inquiry and promises superior results, because it avoids several measurement difficulties encountered in previous work.

The study investigates the determinants of financial structure through the examination of four specific hypotheses between leverage and above mentioned four variables.. Data on the sample firms was gathered for two five year time spans; from 1969 to

1974 and from 1971 to 1976.. The results of the study's effort to relate firm's characteristics to leverage class are

- Industry class is linked to a firm's leverage, but in a less pronounced and direct manner than has been previously suggested
- A firm's use of debt is related to its size, but the relationship does not conform to the positive, linear scheme that has been indicated in other work
- Variation in income, measured in several ways, could not be shown to be associated with a firm's leverage
- Operating leverage does influence the percentage of debt in a firm's financial structure and the relationship between these two types of leverage is quite similar to the negative, linear form which financial theory would suggest.

In respect of determinants of capital structure of the business firms neither financial theory nor research have been able to provide satisfactory agreement as to what factors affect the capital structure decision and how if the decision affects firm's performance (Weston and Brigham, 1981; Myers, 1984). So, Sidney L. Barton and Paul J. Gordon (1988) have suggested a broader managerial (behavioral) perspective to fully understand the debt-equity mix at the level of the individual firm.

In response to this situation, the authors proposed that a corporate strategy perspective, with its emphasis on managerial choice, may provide a behavioral basis for understanding the capital structure of large US firms at the firm level which is complementary to the traditional finance paradigm at the level of the economy. In this study the authors have defined five propositions relating to capital structure decision of a firm.

i. Top management's risk-taking propensities will always affect the capital structure of a firm.
ii. Top management's goals for the firm will affect the firm's capital structure.

iii. Top managers would prefer to finance a firm's needs from internally generated funds rather than from external creditors or even new stockholders.

iv. The risk propensity of top management and specific financial context of the firm affect the amount of debt lenders willing to lend, and what terms they are willing to use.

v. Relevant financial contextual variables moderate the ability of top management to select a capital structure for the firm

Based on the above mentioned proposition, for the purpose of the study, the authors have taken into consideration the following variables.

- Profitability (measured in terms of Return on Assets)
- Firm Size
- Firm Sales Growth
- Firm Capital Intensity
- Risk (measured in variation of profit)

Five year time period from 1970 – 1974 was used for the purpose of the study and data had been collected from Fortune 500 list of industrial companies. The author had taken 279 firms as a sample for the study. The authors have used Regression model to analyze the data. The following are some of the major findings of the study conducted by them.

- The result suggested that management of firms with different diversification strategy react differently to their financial context when choosing a capital structure.
- The study support for the negative relationship between profitability and debt level of the firm.

- The study does not support the reasoning based on the finance paradigm, which suggest that the profitable firms should have higher debt level than less profitable ones (Myers, 1984)
- There exists reasonable support for the hypothesis of positive relationship between sales growth and debt level.
- There exists no strong relationship between debt and capital intensity.
- There exists strong relationship between debt level and earning risk.
- The relationship between size and debt level is not significant.

**On the existence of optimal capital structure: Theory and Evidence – M. Bradley, G. Jarrell, and E.H. Kim (1980)**; the authors in their study have carried out a cross sectional study using aggregate data from 1962 to 1981. Their study is divided into three sections. Section I developed a theoretical model that synthesizes the recent advances in the theory of optimal capital structure. Section II presented testable implications of the theory by using comparative statics and a simulation of the model. The simulation showed that firm leverage ratios to be negatively related to the volatility of firm earnings if the costs of financial distress (bankruptcy costs and agency costs of debt) are non-trivial. In Section III authors examined the cross-sectional variations in firm leverage ratios to see if they are related to

- The through-time volatility of firm earnings
- The relative amount of non-debt tax shields (depreciation and tax credits)
- The intensity of research and development and advertising expenditures.

They focused on a 20-year average debt-to-value measure, to minimize the effects of transient variations through time because of business cycles or lagged adjustments by firms towards their "target" leverage ratios. Authors through study found that the "permanent" or average firm leverage ratios are strongly related to industry classification, and that this relation remains strong even after excluding regulated firms. More important, the research found firm leverage ratios were related inversely

to earnings volatility. These results are consistent with the theory of optimal capital structure.

In the paper, **The Choice between Equity and Debt: An empirical Study – P. Marsh (1982);** he developed a descriptive model of the choice between equity and long term debt. The coefficients of the model were estimated using logit analysis applied to a sample of 748 issues of equity and debt made by UK companies over the period 1959-70. The predictive ability of the model was tested on a holdout sample of 110 equity and debt issues made between 1971 and 1974. The study threw some light on a number of interesting questions such as whether companies behave as though they have target debt ratios; whether they have similar targets for the composition of their debt; whether market conditions or the company's historical share price performance affects their choice of instrument; and whether debt ratios or the choice of financing instrument are influenced by other factors such as operating risk, company size, the composition of the company's assets, and the rate at which retentions are generated.

After the research, it demonstrated that companies are heavily influenced by market conditions and the past history of security prices in choosing between equity and debt. Indeed, these factors appeared to be far more significant in the model than, for example, other variables such as the company's existing financial structure. Second, the study provided evidence that companies do appear to make their choice of financing instrument as though they had target levels in mind for both the long term debt ratio, and the ratio of short term to total debt. Finally, the results are consistent with the notion that these target levels are themselves functions of company size, bankruptcy risk, and asset composition.

**The Capital Structure Puzzle - Stewart C. Myers (1984);** in his work has stated that we know a bit about the impact of dividend policy like stock price respond to the unanticipated dividend changes giving clear idea that dividends have information

content. We do know whether high dividend yield increases the expected rate of return demanded by investors. But in contrast we know little about capital structure. We do not know how firms choose the debt, equity or hybrid securities they issue. And it is recently that we discovered that capital structure changes convey information to investors. There has been little if any research testing whether the relationship between financial leverage and investors' required return is as the pure MM theory predicts. In general, we have inadequate understanding of corporate financing behavior, and of how that behavior affects security returns. He further adds that we have been accumulated helpful insight into capital structure choice, starting with the most important one, MM's No Magic in Leverage Theorem (proposition I).

But these theories do not seem to explain actual financing behavior so the author in this paper has tried to make amends and try to push research in some new direction. He have contract two ways of thinking about capital structure:

1. A static tradeoff framework, in which the firm is viewed as setting a target debt-to-value ratio and gradually moving towards it, in much the same way that a firm adjusts dividends to move towards a target payout ratio.

2. An old-fashioned pecking order framework, in which the firm prefers internal to external financing and debt to equity if it issues securities. In the pure pecking order theory, the firm has no well-defined target debt-to-value ratio.

He states that recent theoretical work has breathed new life into the pecking order framework and argues that this theory performs at least as well as the static tradeoff theory in explaining what we know about actual financing choices and their average impacts on stock prices.

Through this study he has concluded that people feel comfortable with the static tradeoff story because it sounds plausible and yields an interior optimum debt ratio which rationalizes "moderate" borrowing. But these characteristics still does not make

it right as it needs to explain financing behavior. The static tradeoff theory seems to work to some extend but actual debt ratio vary widely across apparently similar firms. The firms either take extended excursions form their target or the target themselves depend on factors not yet recognized or understood. He have explained and concluded based on asymmetric information by adding only those elements of the static tradeoff which have clear empirical support. He has pointed out what he really think is happening with a warning that the modified pecking order story he explained is grossly oversimplified and under qualified. But he states that it is generally consistent with the empirical evidence.

1. Firms have good reasons to avoid having to finance real investment by issuing common stock or other risky securities. They do not want to run the risk of falling into the dilemma of either passing by positive-NPV projects or issuing stock at a price they think is too low.

2. They set target dividend payout ratios so that normal rates of equity investment can be met by internally generated funds.

3. The firm may also plan to cover part of normal investment outlays with new borrowing, but it tries to restrain itself enough to keep the debt safe-that is, reasonably close to default-risk free. It restrains itself for two reasons: first, to avoid any material costs of financial distress; and second, to maintain financial slack in the form of reserve borrowing power. "Reserve borrowing power" means that it can issue safe debt if it needs to.

4. Since target dividend payout ratios are sticky, and investment opportunities fluctuate relative to internal cash flow, the firm will from time to time exhaust its ability to issue safe debt. When this happens, the firm turns to less risky securities first-for example, risky debt or convertibles before common stock.

The crucial difference between this and the static theory is that in modified pecking order, observed debt ratios will reflect the cumulative requirement for external financing. He have explained it with an example- An unusually profitable firm in an industry generating relatively slow growth will end up with an unusually low debt ratio compared to its industry average, and won't do much of anything about it. It won't go out of its way to issue debt and retire equity to achieve a more normal debt ratio. So, this unprofitable firm in the same industry will end up with a relatively high debt ratio. If it is high enough to create significant costs of financial distress, the firm may rebalance its capital structure by issuing equity. On the other hand it may not. The same asymmetric information problems which sometimes prevent a firm from issuing stock to finance real investment will sometime also block issuing stock to retire debt. If this is true, average debt ratios will vary from industry to industry. A long run industry average will not be meaningful target for individual firms.

The modified pecking order depends on sticky dividends, but does not explain why they are sticky and another idea it provides - understands of when and why firms issue common equity. It recognizes both asymmetric information and costs of financial distress. Thus the firm faces two increasing costs as it climbs up the pecking order: it faces higher odds of incurring costs of financial distress, and also higher odds that future positive-NPV projects will be passed by because the firm will be unwilling to finance them by issuing common stock or other risky securities. The firm may choose to reduce these costs by issuing stock now even if new equity is not needed immediately to finance real investment, just to move the firm down the pecking order. In other words, financial slack (liquid assets or reserve borrowing power) is valuable, and the firm may rationally issue stock to acquire it.

**Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure – M. Jensen and W. Meckling (1976)**

In this research work, the authors has integrated elements from the theory of agency, the theory of property rights and the theory of finance to develop a theory of ownership structure of the firm. They defined the concept of agency costs, showed its relationship to the 'separation and control' issue, and investigated the nature of the agency costs generated by the existence of debt and outside equity. They have also demonstrated who bears costs and why, and investigate the Pareto optimality of their existence. Authors further provided a new definition of the firm, and showed how their analysis of the factors influencing the creation and issuance of debt and equity claims are a special case of the supply side of the completeness of markets problem.

## 2.3 Nepalese Review

Under this topic, various master level dissertations related to the study which have been done by MBS students are reviewed which are as follows.

In a study conducted by Mr. Shiva Nath Mainali on the topic "A study on Capital Structure Management of Jyoti Spinning Mills Ltd", he puts forward some findings which are as follows.

- The company was highly levered.
- The portion of share capital is found comparatively low and increasing with a normal rate.
- The sales revenue could not justify its investment.
- The company's earning power is weak and the investors of this company bearing heavy losses on their investment.

To solve these problems his suggestion are as follows.

- The company should lower down the debt and obtain additional funds through the issue of share capital.

- The company should raise debt capital in contribution with equity and more debt should be utilized to fetch higher return in order to build up better public image.
- The old debt should be repaid by liquidating its unused fixed assets and search for cheaper sources of new debt.
- The company should adopt an attractive advertisement policy to push its existing product and to promote new market.

Another study conducted by Mr. Krishna Pathak on topic "Capital Sturcture Management of Gorkharli Rubber Udyog Ltd." , he has analyzed factors in the form of ration analysis i.e. liquidity ratio and capital structure ratios. In his findings especially to the capital structure and profitability position, he drew the following conclusions.

- The company's debt servicing capacity was very poor due to the negative interest coverage ratio.
- The operational performance was not satisfactory due the negative earnings and low volume of sales revenue. The company was able to utilize only 50% of its capacity due to which it result the in huge loss.
- The company's debt capital was very high as compared to shareholder's equity and the value of D/E ratio was increasing every year. He thus suggested to lower down the amount of debt and obtaining additional funds though issue of equity share.
- To reduce over staffing, make strategic plans and develop the motivational management.

On the study made by Mr. Ramesh Raj Aryal on "An evaluation of Capital Stucture of Bottlers Nepal Ltd. , he has sorted out following findings.

- The company does not have a proper balance of debt and equity capital.
- The debt capital is comparatively higher than equity capital.
- The earnings of the company are not satisfactory.

- The cost of capital and control of risk was not so effective.

He also suggested that the company should balance between debt and equity capital by issuing equity capital. The management of the company should control risk and operational cost.

Similarly, another study made by Mr. Nirah Baral on topic "Capital Structure management of Biratnagar Jute Mills Ltd., he put forward following findings and suggestions.

- The capital structure of the company was not optimal. The company was raising debt to fulfill the losses, which caused increase in the proportions of debt in the capital structure.
- All the expenses are in increasing trend, but the sales did not increase accordingly.
- The proprietary ratio has shown the percentage of the total assets financed by the owner's fund and decreasing each year.

To solve these problems, he had suggested the following points.

- To trim overstaffing and to train the unskilled manpower.
- Company should retire debt by liquidating unused fixed assets.
- To raise new equity capital and concentrate on advertisement to boost up the sales.
- To avoid unnecessary expenses like charity, guest, inauguration, hospitality etc.

There are several factors that determine the capital structure of the firms. These factors are size of the firm, growth opportunities, profitability, collateral value of assets, volatility of income non-debt- tax shield etc..

# CHAPTER III

# RESEARCH METHODOLOGY

## 3.1. Introduction

The term “Research methodology” is composition of two words “research and methodology”. Research mean keep on searching for truth, knowledge and methodology is referring to the various sequential steps that are adopted in the search process. Research methodology is defined as systematic process adopted by the researcher in studying a problem with certain objectives in view. Methodology serves as a framework, which focuses on the data collection methods, analyzing and evaluating data to derive the conclusion. This research tries to perform a well designed quantitative and qualitative research in a very clear and direct way using both financial and statistical tools.

## 3.2 Research Design

Research design means an overall framework or plan for the collection and analysis of data. The research design serves as a framework for the study, guiding the collection and analysis of the data. The research design then focuses on the data collection methods, the research instruments utilized, and the sampling plan to be followed.

This study is concerned with examination of capital structure management in Nepalese companies. For this purpose, the companies from manufacturing sector are being taken and analyzed to understand the capital structure management in this sector.

The identification of the problem of the study, as a first element of research design, has already been defined in the introduction part in chapter one. Another element of research design is concerned with the collection of data. In this regard, the required data needed for the study have been collected from both primary and secondary

sources. After having collected the required data, it is analyzed with the help of various statistical tools that are being discussed in later on in this chapter.

## 3.3 Nature and Source of Data

The required data for the study has been collected both from primary and secondary sources. The qualitative aspects of information relating to the capital structure have been collected through the primary source and the quantitative aspect of information from secondary sources.

**Primary Source**

A questionnaire, consisting of 13 mixed questions relating to capital structure or leverage, had been distributed to 50 financial executives or persons who somehow are engaged in financing decision making of the firm. The structured questionnaire has been presented in the appendix. The respondents are not expected only from the enterprises that are selected for the purpose of study. The objective of information from primary source is to examine the views of the Nepalese financial executives/officers relating to capital structure management in a firm. Therefore, the respondents are chosen from other than manufacturing sectors. The questionnaire has been distributed by visiting personally to the concerned respondents and collected after they are being filled. In some cases, the questionnaire has been forwarded through mail and received the filled through it.

**Table 1**

**Sample Organization selected for Primary Data**

| Types of Organization | | | |
|---|---|---|---|
| S.N | Type | Frequency | Percent |
| 1 | Financial | 22 | 44 |
| 2 | Service | 10 | 20 |
| 3 | Manufacturing | 8 | 16 |
| 4 | Trading | 8 | 16 |
| 5 | IT | 2 | 4 |
| Total | | 50 | 100 |

The above table presents the respondents selected for this study from various lines of business. Out of the total 50 respondents, 22 respondents - 44 percent are from financial sector, 10 respondents - 20 percent from Service sector, 8 respondents - 16 percent from manufacturing sector, 8 respondents - 16 percent from trading and 2respondents - 4 percent from IT sector.

**Table 2**

**Sample Respondents' Position in the Organization**

| Position | Number | Percentage |
|---|---|---|
| MD/CEO | 4 | 8 |
| CFO | 4 | 8 |
| Managers | 18 | 36 |
| Officer | 14 | 28 |
| Proprietor | 10 | 20 |
| Total | 50 | 100 |

The above table 4 provides the detail about the respondent position in their concerned organization. Out of 50 respondents, 8 percent hold the position of Managing Director/ Chief Executive Officer, 8 percent Chief Financial Officer, 36 percent Managers, 28 percent Officer Level and 20 percent Proprietor. The respondent serious concern in the study is provided by the position held by them.

**Secondary Sources**

Secondary data consists of the annual reports published by the selected enterprises for this study where balance sheet and profit and loss account (income statement) are present. Those annual reports are being collected visiting to the concerned enterprises and SEBON.

## 3.4 Population and Sample

Population is the aggregate or totality of statistical data forming a subject of investigation. All manufacturing companies listed in the Nepal Stock Exchange are considered as population. But for the study only 7 companies from those listed in Nepal Stock Exchange will be taken as sample. The names of the companies are presented as follows.

**Sample Companies**

| S.N | Name of the companies | Period covered |
|---|---|---|
| 1 | Bottlers Nepal Limited | 2005 - 2010 |
| 2 | Nepal Lube Oil Limited | 2004 – 2009 |
| 3 | Gorakhali Rubber Udyog Limited | 2003 - 2009 |
| 4 | Nepal Bitumen and Barrel Udyog Limited | 2003 – 2009 |
| 5 | Sriram Sugar Mills Limited | 2003 - 2009 |
| 6 | Shree Bhrikuti Pulp and Paper Nepal Limited | 2004 – 2009 |
| 7 | Himalayan Distillery Limited | 2001 - 2010 |

## 3.5 Tools of Analysis

Empirical research evidences have demonstrated how firm value may vary with changes in the debt-equity mix. Mostly the optimal capital structure maximizes firm value by simultaneously minimizing external claims to the cash flow stream flowing from the firm's assets. To test the relationship between the level of debt and seven explanatory variables representing Collateral Value of Assets, non-debt tax shields, Growth, Firm Size, Volatility of Earnings, Profitability and Liquidity are examined using Multiple Regressions. The study decomposes debt into long-term debt and short-term debt. The debt ratios considered are: Total Debt to Total Assets, Short-term Debt to Total Assets and Long-term Debt to Total Assets. During the process of analysis of both the primary and secondary data, some descriptive statistics like mean, standard deviation, Pearson Coefficient of Correlation has been used.

**Model Specification**

**Measurement of Relationship between Leverage and Various Variables:**

Having discussed the variables that determine the optimal capital structure and variables that are used as measure of leverage in the previous section, the following panel data (polled cross-sectional) models has been used in this study to test the relationship between leverage and those explanatory variables that are mentioned in the previous section.

*Leverage = f (collateral value of assets, non-debt tax shields, growth, firm size, volatility of earnings, profitability, liquidity)*

In equation form,

$y_{it} = \alpha_{it} + \beta x_{it} + \mu_{it}$ ... ... .... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... *(1)*

Where,

i = 1, 2,…., N and t = 1,…,T

$y_{it}$ = leverage of firm I in year t.

$\alpha$ = constant of equation, individual effects or an unobserved heterogeneity.
$\beta$ = a 7 ×1 vectors of constant (i.e., coefficient of variables)
$x_{it}$ = a vector of 7 time-varying regressors (i.e., explanatory variables), and
$\mu_{it}$ = error terms independently and identically distributed with zero mean.

In specific form,

$$LEV_1 = \alpha + \beta_1 (CVA) + \beta_2 (NDST) + \beta_3 (GR) + \beta_4 (FS) + \beta_5 (VOL) + \beta_6 (PFT) + \beta_7 (LIQ) + \mu \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (2)$$

$$LEV_2 = \alpha + \beta_1 (CVA) + \beta_2 (NDST) + \beta_3 (GR) + \beta_4 (FS) + \beta_5 (VOL) + \beta_6 (PFT) + \beta_7 (LIQ) + \mu \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (3)$$

$$LEV_3 = \alpha + \beta_1 (CVA) + \beta_2 (NDST) + \beta_3 (GR) + \beta_4 (FS) + \beta_5 (VOL) + \beta_6 (PFT) + \beta_7 (LIQ) + \mu \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (4)$$

Where,

$LEV_1$ = $\frac{\text{Total Short-term Debt}}{\text{Total Assets}}$

$LEV_2$ = $\frac{\text{Total long-term Debt}}{\text{Total Assets}}$

$LEV_3$ = $\frac{\text{Total Debt}}{\text{Total Assets}}$

CVA = Collateral value of assets;

NDST = Non-debt Tax Shield

GR = Growth

FS = Firm Size

VOL = Volatility of Earnings

PFT = Profitability

LIQ = Liquidity

$\mu$ = Error Term

# CHAPTER IV

# PRESENTATION AND ANALYSIS OF DATA

## 4.1 Introduction

Analysis and interpretation of the data is an attempt to find out the implications and the significance of past activities/decision in the light of present position and future prospect and to make suggestion for future action. Analysis involves the compilation of data, ranking data as per its relative significance and examination of data using different tools. On the other hand interpretation means making explanation and drawing inference about the changes or variations in the phenomena about the outcome of analysis.

The specific objective of this study is to examine the capital structure management of manufacturing companies of Nepal. This chapter comprises detail of data collected from primary and secondary sources and are scrupulously analyzed and interpreted to serve the purpose of study using the statistical and non statistical tools and techniques.

## 4.1 Analysis of Secondary Data

The study is based on the secondary data for 5-9 years of selected organization collected from concerned organization. The sample contains 7 manufacturing companies listed in Nepal Stock Exchange.

### 4.1.1 Descriptive Statistics

The descriptive statistics are powerful tools to have ideas of distributions of variables. Some most frequently used statistics like minimum value; maximum value, mean and standard deviation have been used in this study. The result and analysis have been presented below.

**Table 3**

**Descriptive Statistics of Variables**

| Variable | N | Minimum | Maximum | Mean | Std. Dev |
|---|---|---|---|---|---|
| LEV1 | 42 | 0.126 | 3.871 | 0.679 | 0.761 |
| LEV2 | 42 | 0 | 5.634 | 0.585 | 1.005 |
| LEV3 | 42 | 0.208 | 9.505 | 1.264 | 1.583 |
| GR | 35 | 43.409 | 514.837 | 15.940 | 88.694 |
| NDTS | 42 | 0.001 | 4.059 | 0.198 | 0.618 |
| PFT | 42 | -0.110 | 0.315 | 0.118 | 0.106 |
| FS | 42 | 18.368 | 21.186 | 19.827 | 0.634 |
| LQD | 42 | 0.514 | 8.936 | 1.593 | 1.475 |
| CVA | 42 | 0.121 | 31.805 | 1.805 | 4.833 |
| VOL | 36 | -424.10 | 794.10 | 19.791 | 180.86 |

Table 3 presents average values of the various variables chosen in this study along with the minimum and maximum values. The standard deviation shows the deviation within the values of different variables. The mean value of LEV1 (measured as the ratio of total debt to total assets is 0.679. So, the average total debt capital of companies is 67.9 percent. However the variations of total debt ratio among the firms are high, with the minimum debt ratio of 0.126 to a maximum 3.871. Though the deviation result is not so high that is 0.761.

The mean value of LEV2 (measured as the ratio of long-term debt to total assets) has been observed as 0.585 in the firm. This value indicates that firms are using 59 percent long-term debt to finance their assets. Since the range of minimum to maximum values of long-term debt has been observed zero to 5.634 in firms. This

indicates that there are certain companies having no long-term debt at all in their capital structure.

The mean value of ratio of short-term debt to total assets, LEV3, is 1.264. The variation among the debt is high, minimum being 0.208 and maximum 9.505. The standard deviation observed is 1.583.

Based on this statistics it seems that the management of debt capital in these, firms is not satisfactory. Financing around 68 percent of assets through debt capital, in some cases this ratio is more than 100 percent, is not a sign of proper debt management. Technically, the firms having debt capital more than assets are considered as insolvent firms. But, it is surprising that these companies have been running and doing their business even in such situation of insolvent.

One of the chosen variable as determinant of capital structure is the average firm size. It is measured as the natural logarithm of sales of the firms. Firm sizes have been observed as 19.827 which indicate the size of firms in terms of sales. The range of firm sizes has been observed as minimum 18.368 to maximum 21.186.

Another variable for determinant of capital structure, growth rate is measured as the percentage change in total assets. The average growth rate of the firms is 15.940 with minimum 43.409 and 514.837 which show that the growth rate is high in these firms.

The average values for non-debt tax shield is found to be 19.8 percent with standard deviation of 61.8 percent. It is measured as the ratio of annual depreciation to total assets. The deviation in the value is high and the range is also high with minimum 0.001 to maximum 4.059.

The profitability of the firms measured as ratio of operating profit to sales is observed to be 11.8 percent in average. The minimum value is -11 percent and maximum value 31.5 which shows high rage of difference. The negative sign shows that there companies which are running in loss as well.

In regard to liquidity positions of the companies, the average liquidity is found to be 1.593. The range of liquidity is also high with minimum and maximum values of 0.514 and 8.936. The variation of distribution of liquidity measured with standard deviation is 1.475.

The average collateral value of assets is observed to be 1.805 for the firms. The standard deviation of the distribution of collateral value is 4.833.This shows that the collateral value of the tangible assets used by these firms differs highly.

Regarding, the volatility, the average value is 19.791. The minimum and maximum range found is -424.10 to 794.10 which is very high. The standard deviation is high too that is 180.86.

### 4.1.2 Correlation Analysis

Correlation analysis intends to measure the relationship between two variables. This analysis describes not only the magnitude of relationship but also its direction. Two or more variables are said to be correlated if change in value of one variable appears to be related or linked with change in the other variables. It refers the closeness of the relationship between two or more variables. The correlation coefficient lies between + 1 and -1. + 1 coefficient indicates that the variables are perfectly positively correlated and -1 variables indicates that the the variables are negatively correlated. And if the coefficient is 0, it means that the variables are not related to each other. The negative correlation indicates that the increase in one variable leads to decrease in the value of the other and positive correlation indicates that the increase in value of one variable leads to increase in the value of other variable also.

## Table 4

### Pearson Correlation Coefficient between Variables

The table presents the Pearson correlation among the variables used in the study.

| Variables | FS | GR | NDTS | PFT | LQD | CVA | VOL | LEV1 | LEV2 | LEV3 |
|---|---|---|---|---|---|---|---|---|---|---|
| FS | 1 | | | | | | | | | |
| GR | -0.178 | 1 | | | | | | | | |
| NDTS | -0.134 | -0.030 | 1 | | | | | | | |
| PFT | 0.2113 | -0.172 | -0.018 | 1 | | | | | | |
| LQD | -0.393 | 0.068 | 0.082 | -0.253 | 1 | | | | | |
| CVA | -0.202 | 0.030 | 0.9835 | -0.104 | 0.1034 | 1 | | | | |
| VOL | 0.0097 | -0.212 | -0.080 | 0.1101 | 0.0452 | -0.118 | 1 | | | |
| LEV1 | -0.363 | 0.5934 | 0.088 | -0.358 | -0.045 | 0.1890 | -0.366 | 1 | | |
| LEV2 | 0.0568 | 0.3063 | -0.040 | -0.232 | -0.279 | 0.0690 | -0.399 | 0.483 | 1 | |
| LEV3 | -0.15 | 0.4861 | 0.0198 | -0.334 | -0.203 | 0.142 | -0.434 | 0.827 | 0.891 | 1 |
| N | 42 | 35 | 42 | 42 | 42 | 42 | 36 | 42 | 42 | 42 |

The table presents the correlation coefficient of the variables from the Nepalese enterprises. Based on the above table firm size has negative correlation with short term and total debt where as positive relation with long term debt. Another variables growth rate and collateral value of assets is positively correlated with all three leverages. Non debt tax shield is positively related with short term debt and total debt while negatively related with long term debt. Profitability and the three leverages is found to have the negative correlation in Nepalese firm and same is the case with volatility.

### 4.1.3 Regression Analysis

Regression analysis studies the statistical relationship between the variables. The main objective of regression analysis is to predict or estimate the value of dependent variable corresponding to a given value of independent variable. Data of selected manufacturing companies for the period of 5 to 8 years are analyzed and presents the regression result of various explanatory variables. In addition, t-values of each of regression coefficients are also provided to have the information regarding the significance of the coefficients of the explanatory variables selected in the study

To test the relationship between the level of debt and seven explanatory variables namely firm size, growth, non-debt tax shield, profitability, liquidity, collateral value of assets and Volatility; multiple linear regression is used. It is said that capital structure studies examining the determinants of leverage based only on total debt may disguise the significant difference between long-term debt and short-term debt. Therefore, this study is conducted using short and long term debt as well. The leverages considered are: short-term debt to total assets (LEV1), long-term loan to total assets (LEV2) and total debt to total assets (LEV3). The above table summarizes the regression coefficients for the various explanatory variables selected in this study and corresponding t-value respectively.

Following multiple regression models has been used to estimate the relationship between various leverage and explanatory variables,

$LEV_1 = \alpha + \beta_1 (CVA) + \beta_2 (NDST) + \beta_3 (GR) + \beta_4 (FS) + \beta_5 (VOL)$

$+ \beta_6 (PFT) + \beta_7 (LIQ) + e$

$LEV_2 = \alpha + \beta_1 (CVA) + \beta_2 (NDST) + \beta_3 (GR) + \beta_4 (FS) + \beta_5 (VOL)$

$+ \beta_6 (PFT) + \beta_7 (LIQ) + e$

$LEV_3 = \alpha + \beta_1 (CVA) + \beta_2 (NDST) + \beta_3 (GR) + \beta_4 (FS) + \beta_5 (VOL)$

$+ \beta_6 (PFT) + \beta_7 (LIQ) + e$

**Table 5**

**Estimation of Relationship between Various Leverage**

| Variables | LEV1 | Significance | LEV 2 | Significance | LEV3 | Significance |
|---|---|---|---|---|---|---|
| FS | -0.1471 | 3.241 | 0.191 | 3.435 | 0.617 | 4.291 |
| GR | 0.448 | -1.765 | 0.388 | -4.525 | 0.446 | -4.171 |
| NDTS | -1.648 | -0.904 | -3.45 | 0.316 | -2.929 | -0.317 |
| PFT | -0.119 | -2.26 | 0.034 | -1.955 | -0.031 | -2.559 |
| LQD | -0.26 | 1.812 | -0.203 | 4.506 | -0.245 | 4.245 |
| CVA | 1.812 | -0.106 | 3.487 | -0.958 | 3.025 | -1.174 |
| VOL | -0.106 | -0.147 | -0.096 | 1.8655 | -0.109 | 0.626 |

Table 5 presents the output of regression analysis of data of manufacturing companies where the seven explanatory variables are regressed on three different leverages separately. The regression coefficient of firm size with respect to short-term debt is found to be negative but the same is positive with long term debt and total debt. This indicates that the manufacturing companies use more long term debt for financing.

The growth measured as percentage change in total assets is found to be negative for all three leverages. Rajan and Zingales (1995) find a negative relationship between growth opportunities and leverage. Titman also has suggested there the negative relation exist between leverage a growth opportunity as equity- controlled firms have a tendency to invest sub optimally to expropriate wealth from the firm's bondholder. The cost associated with this agency relationship is likely to be higher for firms in growing industries, which have more flexibility in their choice of future investment. So, expected future growth should be negatively related to long-term debt. The result of this study is consistent with the previous empirical studies.

Non-debt tax shield is found to be negatively related with all short-term, long-term and total debt. This finding is consistent with the findings of DeAngelo and Masulis (1980) and Titman and Wessels (1988). DeAngelo and Masulis (1980) in their work have presented a capital structure model where non-debt tax shields serves as a substitute for the tax benefits of debt financing. As a result, firms with large non-debt tax shield relative to their expected cash flows use less debt in their capital structure. The result is in line with the previous studies.

Most of the previous studies; Majluf (1984) and Titman and Wessels (1988), have found negative relationship between profitability and leverage. In this study, long-term debt is positively correlated with the firm while other two short and total debts are negatively correlated. This shows that the profitable firms have been using long term debt in their capital structure. According to pecking order theory, firms prefer using internal funds first, then debt and finally equity obtained by stock issue. All things being equal, the more profitable the firms are, the more internal financing they will have, and therefore, negative relation between leverage and profitability.

Liquidity position of a firm as a determinant of capital structure decision may have mixed impact. Theoretically, firms with higher liquidity may be in a position pay the short term debt when they fall due and supports to use long relatively higher debt in

their capital structure. As per this positive relationship between leverage and liquidity position of the firm is be there. On the other hand, firms with high liquidity position may use these assets to support the investment that imply less use of debt and it is expected to have negative relationship between leverage and liquidity. This study shows liquidity is negatively correlated in terms of all three leverages.

In respect of collateral value of assets, this study has found positive relationship with all the three leverages. Firm with high collateral value of assets should take more debt (Harris and Raviv, 1990). Myers and Majlif (1984), Titman and Wessels (1988), Rajan and Zigalesh (1995) have suggested positive relation between collateral value of assets and leverage which is consistent with the result of this study.

Another variable selected as determinant of capital structure of the firms is volatility. The result of the study show negative relation with the leverage of all three cases. This result is consistent with the result of Titman and Wessels (1988) which shows negative relationship.

The objective of the study is to examine the capital structure management in Nepalese firm in the light of various determinants of capital structure of the firms. In this regard it has found consistent result as compared to the previous study. In case of profitability and long term debt as per previous study negative result is expected but in this study there exist positive. Overall, the study is consistent.

## 4.2 A Survey of Capital Structure in Nepal

This section deals with the primary data analysis and presents the results on the survey done within the Nepalese organizations. It mainly focuses on capital structure practices in Nepal. The study is mainly concerned with qualitative aspects of capital management. The survey has been accomplished by distributing the structured questionnaire to 50 practitioners working at executive levels. Practitioners include those persons working in finance department of their concerned organization.

For the purpose of the study, the questionnaire consisting of 15 questions have been distributed to the practitioner in different organizations at different capacities. The questionnaire includes the question relating to the capital structure management of an organization and practice in Nepal. The major objective of the study is to examine the views of practitioner on various aspect of capital structure management practice in Nepal.

In the analysis part, percentage of each choice for each question has been presented. Next, the response to each choice in those questions where choices are given to rank is weighted by the value of the rank assigned to it by the respondent, and weighted arithmetic mean is calculated.

### 4.2.1 Use of Debt Capital in the Capital Structure

The first question the respondents are asked in the survey is whether they have debt capital in their capital structure. Out of 50 respondents, 38 respondents that is 76 percent have used debt and 12 respondent that is 24 percent have not used debt in their capital structure. The result is shown in the table below.

**Table 6**

**Use of Debt**

| Response | Frequency | Percent |
|---|---|---|
| Yes | 38 | 76 |
| No | 12 | 24 |
| Total | 50 | 100 |

*Source: Field Survey*

The survey shows that most of the organizations in Nepal have been using debt capital as their source of financing.

### 4.2.2 Relationship between Cost of Capital and Debt

Regarding the relationship of cost of capital and use of debt, the respondent was asked the second question -"Is there any relationship between use of debt capital and overall cost of capital of a firm?" The response has been summarized in the table below.

**Table 7**

**Relationship between Cost of Capital and Debt**

| Response | Frequency | Percentage |
|---|---|---|
| Yes | 36 | 72 |
| No | 14 | 28 |
| Total | 50 | 100 |

*Source: Field Survey*

Form the above table, it shows that most of the practitioners accept that there is relationship between debt capital and the cost of capital of the firm. 36 respondents – 72 percent have given positive answer and rest 28 percent negative.

### 4.2.3 Systematic – Beta and its Affect Over Capital Structure Policy

The systematic risk of the firm depends on the types of the assets it has employed, which is measured by its beta coefficient. There is a unique relationship between systematic risk and the rate of return that the market requires on securities. One application of this concept is a procedure for estimating the cost of equity using the Capita Assets Pricing Model (CAPM). Therefore, the systematic risk of the firm's assets must equal the systematic risk of the claims on assets and the beta coefficient of a firm is the weighted average beta of all the claims on the assets of a firm. Based on this, it is obvious that the beta coefficient of the firm affects the capital structure of the firm.

On this respect, the respondents are asked the relation of the effect of beta coefficient and the capital structure of the firms. The respondents were asked - "Does the systematic risk, as typically measured by what is called beta-coefficient, ever affect your capital structure policy?" The response to the question has been summarized in the table below.

**Table 8**

**Systematic – Beta and its affect over Capital Structure Policy**

| Response | Frequency | Percent |
|---|---|---|
| No Response | 2 | 4 |
| Yes | 16 | 32 |
| No | 8 | 16 |
| Don't know | 24 | 48 |
| Total | 50 | 100 |

*Source: Field survey*

As per the survey, 2 respondents did not answered, 16 of them agree that beta coefficient affect their capital structure policy. However, 8 respondents i.e. 16 percent do not agree and rest 24 of them have no idea about this concept in their organization. From the survey, it shows that most of the practitioners in the Nepalese organization are unknown about the concept of systematic risk in the firm.

### 4.2.4 Purpose of Using Debt in Capital Structure

In regard to purpose using debt in their capital structure, four determinants were provided in the . The result is provided in the table below. The table shows the response to the question "in your opinion, which of the following purposes is most important of using debt?" The respondents are asked to give rank order of their importance as 1 being the most important and 4 being the least important.

**Table 9**

**Purpose of Using Debt Capital**

| Purposes | Rank assigned | | | | Total Response | Weighted value | Mean Weight | Overall Rank |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | | | | |
| To reduce tax liability | 18 | 12 | 14 | 6 | 50 | 108 | 2.16 | 2 |
| To magnify return to shareholders | 20 | 14 | 8 | 6 | 50 | 96 | 1.92 | 1 |
| To reduce agency cost | 2 | 10 | 18 | 18 | 48 | 184 | 3.83 | 4 |
| To maintain ownership control unchanged | 10 | 12 | 8 | 18 | 48 | 130 | 2.71 | 3 |
| Total | 51 | 50 | 51 | 52 | 196 | | | |

*Source: Field Survey*

As per the survey result, the first priority is given to 'to magnify the returns to shareholders'; the second priority to 'to reduce tax liability'; third priority to 'to maintain ownership control unchanged'; and the fourth priority to 'to reduce the agency cost'.

### 4.2.5 Measurement of Financial Leverage

Financial leverage, the proportion of debt capital in the total capital of the firms, is measured in different ways. To know how the leverage factors are measured in the Nepalese firms, the respondents are asked the question "How do you measure the degree of financial leverage?" As options five different and mostly used measures were given namely, Total liabilities divided by total assets, Long term debt divided by total assets, Long term debt divided by equity, Long term debt divided by debt plus equity, Earnings before interest and taxes (EBIT) divided by total interest. The table below shows the response to the question.

**Table 10**

**Measurement of Financial Leverage**

| Tools | Number | Percentage |
|---|---|---|
| Total liabilities divided by total assets | 4 | 8 |
| Long term debt divided by total assets | 16 | 32 |
| Long term debt divided by equity | 14 | 28 |
| Long term debt divided by debt plus equity | 6 | 12 |
| Earnings before interest and taxes (EBIT) divided by total interest | 8 | 16 |
| Total | 48 | 96 |

*Source: Field Survey*

The study reveals that there are no consistent views regarding the measurement of leverage in their capital structure. As per the survey result, 32 percent of the

practitioners have been using the ratio long term debt divided by total assets which is the highest percentage. 28 percent used long term debt divided by equity and the lowest percent is 8 percent who used total liabilities divided by total assets ratio as tool for measurement of degree of financial leverage.

### 4.2.6 Source of New Capital

Whenever the business firms plans for expansion through new project or activity, they need additional capital/funds. The required funds can be made available from various alternative sources. In Nepalese enterprises if they are to finance their expansion strategy then which source of financing do they prefer is found from the question, "How do you arrange the funds to undertake a new project activity?" The table below shows the response to the question.

**Table 11**

**Source of New capital**

| Source of funds | Number | Percentage |
|---|---|---|
| Through retained earnings | 20 | 40 |
| Through debt capital | 6 | 12 |
| Through new equity | 4 | 8 |
| Through mix of debt and equity | 20 | 40 |
| Total | | |

*Source: Field Survey*

From the survey finding 40 percent each for 'through retained earnings' and 'through mix of debt and equity' options were being preferred. The least priority is given to equity capital.

As per the Myers and Majluf's Pecking Order Theory, retained earnings should be the first preference for the funds for new activity. However, as per this survey retained

earnings and through debt and equity are equally weighted. And in contradiction to this theory some of the respondents have given preference to equity as well as debt capital. Through the survey it shows those Nepalese practitioners do not follow pecking order theory.

### 4.2.7 Practice of Optimal Capital structure

With respect to practice of optimal capital structure management in Nepalese firm, the practitioner are asked, "Do you have practice of optimal capital structure in your firm?" The response given by them is presented in the table below.

**Table 12**

**Practice of Optimal Capital Structure**

| Responses | Number | Percentage |
|---|---|---|
| Yes | 18 | 42 |
| No | 12 | 28 |
| Don't know | 13 | 30 |
| Total | 43 | 100 |

*Source: Field survey*

Out of 50 respondents taken, 43 of them gave response to the question. 42 percent said that they have the practice of optimal capital ratio, 28 percent said no and 30 percent they don't know. It seems that Nepalese organization do not have no practice of capital structure management.

### 4.2.8 Optimal Debt Capital Ratio

With respect to optimal debt ratio to be followed by the firm the respondents are asked what should be the debt ratio of the firm. In this regards the respondents are asked, "What do you think about the optimal debt capital ratio in a firm?" The response to the question has been shown in the table below.

**Table 13**

**Optimal Debt Capital Ratio**

| Percentage of debt ratio | Number | Percentage |
|---|---|---|
| Less than 20 percent of the total assets | 4 | 8 |
| 20 percent to 40 percent of the total assets | 20 | 40 |
| 40 percent to 60 percent of total assets | 20 | 40 |
| Above 60 percent of the total assets | 4 | 8 |
| Missing | 2 | 4 |
| Total | 50 | 100 |

*Source: Field Survey*

From the survey it is revealed that 40 percent of the respondents believed that 20 to 40 percent and again another 40 percent have the opinion that 40 to 60 percent is optimal debt capital. 8 percent of the respondents said less than 20 percent and next 20 percent above 60. It seems that the Nepalese organizations uses debt capital in the firm and use it mostly within the range of 20 to 60 percent.

### 4.2.9 Factors determining the financing decision

As regard to the factors governing the financing decision of the firm, the respondents are asked to rank the given five factors in accordance to their importance where 1 is the most important and 5 the least important (See question no 14 in appendix 1). The five factors given as option were: The corporate tax rate, the level of depreciation and other non-debt tax shied items, Cost of financial distress and agency cost, Voting Control, and Projected earnings from the assets to be financed. The survey result is presented in table no. 15. The table shows the response to the question where the respondents were asked to indicate the relative importance of the factors in governing the financing decision.

**Table 14**

**Factors determining the Financing Decision**

| Factors governing financial decision | Rank assigned | | | | | Total Responses | Weighted value | Mean Weight | Overall Rank |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | | |
| The corporate tax rate | 0 | 12 | 20 | 6 | 4 | 50 | 128 | 2.56 | 2 |
| The level of depreciation and other non-debt tax shied items | 2 | 8 | 12 | 16 | 12 | 50 | 178 | 3.56 | 4 |
| Cost of financial distress and agency cost | 10 | 16 | 8 | 10 | 6 | 50 | 136 | 2.72 | 3 |
| Voting Control | 0 | 4 | 4 | 14 | 28 | 50 | 216 | 4.32 | 5 |
| Projected earnings from the assets to be financed | 30 | 12 | 4 | 4 | 0 | 50 | 82 | 1.64 | 1 |

*Source: Field Survey*

From the response of the respondents, they were of the opinion that the projected earnings from the assets to be financed is the most influential factor in financing decision. The second factor that influence most in Nepalese firm is the corporate tax rate, the third factor is cost of financial distress. The level of depreciation and other non-debt tax shield is the fourth influential factor and voting control the least one.

### 4.2.10 Setting the Target Financial Structure

The respondents were asked "Whose opinion is most influential in setting the firm's target financial structure in Nepalese firm?" The five influential factors given as option were: Their own management, investment bankers, commercial banks, Trade creditors and comparison with an industrial norm. The main aim of this question was to find as what is happening in the actual practice not to find if the theory in this respect is applicable in the practice or not. The response of the question has been shown in the table below.

**Table 15**

**Setting the Target Financial Structure**

| Influential Factors | Rank assigned | | | | | Total Responses | Weighted value | Mean Weight | Overall Rank |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | | | |
| Own management and staffs | 30 | 4 | 8 | 4 | 4 | 50 | 98 | 1.96 | 1 |
| Investment Banker | 0 | 8 | 10 | 16 | 16 | 50 | 190 | 3.80 | 4 |
| Commercial Banker | 4 | 14 | 14 | 14 | 4 | 50 | 150 | 3.00 | 3 |
| Trade creditors (suppliers) | 6 | 2 | 10 | 8 | 24 | 50 | 192 | 3.84 | 5 |
| Comparison with an industrial norms | 10 | 20 | 8 | 10 | 2 | 50 | 124 | 2.48 | 2 |

*Source: Field survey*

The rank 1 indicates the most important factor and rank 5 indicates the least important factor. From the survey, their own management and staff of analyst opinion is ranked 1, which means in Nepalese firm firms financial target is through the opinion of them. Rank 2 is comparison with an industrial norms, rank 3 is commercial banks, rank 4 to Investment bank. Trade creditors influence the least in setting target financial structure of firm in Nepalese context.

### 4.2.11 Action towards optimal capital structure

The table 16 relates action towards the optimal capital structure when the firm needs additional capital for new project/activity. In respect to this, the respondents are asked, "Given an attractive new growth opportunity that could not be taken without departing from your target capital structure what action is your firm most likely to take?" Four options are given in this regard as; Forgo the growth opportunity, Deviate from the target capital structure or financing hierarchy, cut the dividend, Sell off other assets

**Table 16**

**Action towards Optimal Capital Structure**

| Suggested Action | Number | Percentage |
|---|---|---|
| Forgo the growth opportunity | 10 | 20 |
| Deviate from the target capital structure or financing hierarchy | 28 | 56 |
| Cut the dividend | 8 | 16 |
| Sell off other assets | 4 | 8 |
| Total | 50 | 100 |

*Source: Field survey*

In such situation most of the respondent that is 56 percent said that they would deviate from the target capital structure, 20 percent said that they would forgo the opportunity, 16 percent said they would cut the dividend and 8 percent suggest selling off other assets. Though most of the respondents suggest deviating from target ratio other 44 percent do not suggest hampering their target ratio and taking other actions other that it.

### 4.2.12 Determinants of Capital Structure

Various factors influence in determining the optimal capital structure. The respondents were asked, "If you have practice of determining the optimal capital structure in your firm, which of the following factors, do you think, are more important in determining optimal capital structure in your firm?" Regarding this question, the respondents are given the factors to be considered in determining the capital structure of the firms as Collateral value of assets, Non-debt tax shield, Growth opportunities of business, Firm size, Fluctuation in income, Profitability of business, and Liquidity position. The table below shows the views of respondents in respect to the determinants of capital structure.

**Table 17**

**Determinants of Capital Structure**

| Sources of funds | Rank assigned | | | | | | | Total Responses | weighted value | Mean Weight | Overall Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | |
| Collateral value of assets | 3 | 2 | 4 | 4 | 8 | 10 | 19 | 50 | 268 | 5.36 | 7 |
| Non-debt tax shield | 0 | 0 | 5 | 8 | 23 | 9 | 5 | 50 | 251 | 5.02 | 5 |
| Growth opportunities of business | 13 | 8 | 14 | 13 | 1 | 1 | | 50 | 134 | 2.68 | 2 |
| Firm size | 4 | 4 | 10 | 11 | 7 | 9 | 6 | 50 | 217 | 4.34 | 4 |
| Fluctuation in income | 3 | 4 | 2 | 7 | 5 | 15 | 14 | 50 | 258 | 5.16 | 6 |
| Profitability of business | 14 | 24 | 8 | 3 | 1 | 0 | 0 | 50 | 103 | 2.06 | 1 |
| Liquidity position | 16 | 8 | 8 | 4 | 5 | 6 | 3 | 50 | 154 | 3.08 | 3 |

*Source: Field Survey*

The rank 1 indicates the most important factor and rank 5 indicates the least important factor. Based on this, it is revealed that 'profitability of the businesses' is the most important factor in determining the capital structure and the least important factor is 'Collateral value of assets'. While keeping in order of rank, profitability of business is the most important then growth opportunities of business followed by Liquidity position, Firm size, Non-debt tax shield, Fluctuation of income and collateral value of assets the least important one.

### 4.2.13 Observation on corporate capital structure policy as viewed by all respondents

In order to test the degree of agreement/disagreement on the facts relating to the capital structure management in Nepalese firms, the respondents are asked, ""How far do you agree / disagree with the following observations on corporate capital structure policy in Nepal?" The respondents were given the following facts.

i. Capital structure of a firm affects its value.
ii. Capital structure of a firm conveys future prospects.
iii. Most of the firms do not pay attention in capital structure management decisions.
iv. High debt capital increase financial risk of business.
v. Capital structure management is not a major function of financial managers of the firms.
vi. Top management's risk-taking propensities will affect the firm's capital structure.
vii. Managers do not pay attention towards the management of capital structure of a firm in our country.

The survey result is presented in the table below.

**Table 18**

**Observation on corporate capital structure policy as viewed by all respondents**

| Observation | Scale value | | | | | Total Responses |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | |
| Capital structure of a firm affects its value. | 21 | 19 | 10 | 0 | 0 | 50 |
| Capital structure of a firm conveys future prospects. | 9 | 27 | 5 | 9 | 0 | 50 |
| Most of the firms do not pay attention in capital structure management decisions. | 10 | 16 | 15 | 9 | 0 | 50 |
| High debt capital increase financial risk of business. | 12 | 27 | 5 | 5 | 0 | 50 |
| Capital structure management is not a major function of financial managers of the firms. | 1 | 6 | 13 | 18 | 12 | 50 |
| Top management's risk-taking propensities will affect the firm's capital structure. | 19 | 18 | 12 | 1 | 0 | 50 |
| Managers do not pay attention towards the management of capital structure of a firm in our country. | 0 | 26 | 16 | 6 | 2 | 50 |

*Source: Field Survey*

Note: The scale values 1, 2, 3, 4, and 5 indicates strongly agree, agree, ok, disagree and strongly disagree respectively.

It shows the summary of the scale for each of the facts. Based on it, it can be concluded that the fact capital structure of a firm affects its value are on the positive scale that is 21 of the respondents strongly agree, 19 of them only agreed and 10 are just ok of the fact but do not disagree. Similarly, the fact 'capital structure is not a major function of financial managers of the firm' agreement is high on the negative scale. That is 12 of the respondents strongly disagree, 18 disagree and 13 are ok of the view. Rest 6 respondents agree and 1 of them strongly agrees of the fact.

## 4.3Major Findings

This study presents the result of the study of capital structure management practice in Nepalese firm with emphasis on determinants of capital structure. The study is based on data provided by the concerned organization published in their annual report. The major findings of this study on capital structure management practices in Nepalese manufacturing firms are summarized below.

1. Firm size, non-debt tax shield, profitability, liquidity, volatility is negatively related while growth rate and collateral value of asset are positively related with leverage when leverage is measured in short term debt.
2. In case of leverage measured in long-term; non-debt tax shield, liquidity, volatility is negatively related while other variable firm size, growth rate, profitability and collateral value of assets are positively related.
3. When total debt is used to measure firm size, growth rate, collateral value of assets are positively related while non-debt tax shield, profitability, liquidity and volatility is negatively correlated.
4. Most of the Nepalese companies are using debt as their source of financing and are aware of relationship between cost of capital and debt.
5. Most of Nepalese organizations are unaware of systematic risk in the firm.
6. Nepalese organizations use debt as a source of financing with major priority to magnify the returns to shareholders.
7. Different companies have different views regarding measurement of degree of financial leverage.
8. Nepalese companies do not follow pecking order theory of investment.
9. Very less Nepalese organization have practice of capital structure management.
10. 20-60 percent is view as optimal debt ratio
11. Most of the Nepalese companies were of opinion that projected earnings from the assets to be financed are the most influential factor in financing decision.

12. Most of the Nepalese organizations take financing decision based on the opinion of its management and staff.
13. Profitability of business is the most important factor in determining the capital structure followed by liquidity position, firm size, non-debt tax shield, fluctuation of the income and collateral value of assets the least important one.

# CHAPTER IV

# SUMMARY, CONCLUSION AND RECOMMENDATION

## 5.1 Summary

This study attempts to explain the determinants of capital structure and it management practice in Nepalese enterprises. The corporate sector in our country consists of three different types of enterprises, namely enterprise fully owned by the government which is also known as public enterprises, enterprises whose stocks are listed in Nepal Stock Exchange (NEPSE) and traded in stock market and enterprises owned by individual families and not traded in the stock market. For the study, 7 manufacturing companies listed in Nepalese Stock Exchange have been taken. A majority of earlier studies mostly indicated some factors affecting the capital structure management decisions in the corporate sectors of developed countries. This study has investigated these factors in the context of our country to see whether the result support the previous studies.

Many studies have been conducted on theory and practice of finance in developed and big capital markets. But in context of smaller and underdeveloped capital market like our there have not been much of the study to see the applicability of the studies of big market. In this regard, this study, based on a small capital market mainly deals with the following issues.

- Factors determining the capital structure in Nepalese enterprises.
- Results relating to capital structure determinants from Nepalese enterprises and there test of consistency with the previous studies conducted in developed capital market.
- View of practitioners relating to capital structure management.

## 5.2 Conclusion

The earlier studies on the capital structure management and its determinants have no unanimous results. There exist lot of controversies with respect to determinants of capital structure of the firms and its effect on the valuation of the firms. Considering the capital structure theory and past empirical studies on it, this study has been conducted to examine the evidences for Nepalese firm. In this regard the data from Nepalese firm have been analyzed to examine the evidences in respect of determinants of capital structure in Nepalese firm. In addition to it primary data analysis to know the view of management towards the capital structure has been conducted taking sample respondent size of 50. The result and conclusions of the study are as follows.

Among the various variables considered for the study as determinants of capital structure firm size with respect to short term debt is negative while with long-term debt and total debt it is positive. The positive relation is consistent with previous results. Growth rate, Non-debt tax shield, liquidity and volatility are negatively correlated with leverages. Profitability in terms of long term debt and collateral value of assets is positively correlated. This shows that firms that are profitable are using more debt in their capital structure. This result of the study opposes the pecking order theory. Firm size and growth rate are observed to be negative with leverage which concludes that bigger firm and growth firms have been using less debt capital as financing source.

Through primary data analysis, an investigation into the major aspect of capital structure management is conducted. The result shows that Nepalese practitioners are unaware of systematic risk of the business, financial distress. They do not have practice of optimal capital structure in the firm. The result shows that the practitioners in many firms are in lack of required theoretical knowledge in financial management.

## 5.3 Recommendation

Basically this study has been focused on to know how Nepalese organizations have been managing their capital structure and what factors affect their capital structure management decision. Based on the analysis of data and findings of the research, recommendation and suggestions are prescribed into the following.

1. Mismanagement of capital structure in terms of debt equity ratio shall lead to failure to pay interest obligation and shall lead to bankruptcy and liquidation. It is recommended that the portion of debt financing shall be based on the projected earnings from the projects that shall be undertaken.
2. Nepalese companies are suggested to follow pecking order theory
3. Nepalese companies are recommended to take in mind the unsystematic risks as well that can be resulted from the market while making capital structure decision.
4. It is recommended to maintain assets from own source than the cost of debt.
5. Low debt assets ratio, from the debtors point of view, is considered to be significant that they receive a cushion of protection against possible losses at the time of liquidation if firm has greater amount of equity in comparison to debt. However, from the firm's management point of view, low debt ratio is not able to get leverage advantage. So it is suggested to balance debt ratio to optimize capital structure.
6. Nepalese companies are suggested to arrange training and development programs to their staff to acquaint them about the factors to be considered while making capital structure decision.
7. Use debt portion in their capital structure within the range of 20-60 percent.
8. Bigger firms with options of non debt tax shields, good profitability, Liquidity are suggested to use low short debt in their capital structure.
9. Bigger firms with good growth rate, profitability, collateral value of assets are suggested to use long short debt in their capital structure.

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# Annexure

## Annex 1- Questionnaire

### Survey Questionnaire

Dear respondent,

I am Manish Prajapati MBS student from Khwopa College, Bhaktapur, affiliated to Tribhuwan University. To complete my degree I need to do a research. So, I am conducting survey of management perspective towards capital structure and its determinants. Your inputs will be very valuable for me to complete my work. The information and findings are purely for academic purpose and will be kept confidential at all times.

**Respondent's Profile**

Name of the respondent ……

Age …… (Years)

Name of the Organization …….

Type of the Organization

- Manufacturing ☐
- Service ☐
- Financial Institution ☐
- Others (Please Specify) …….

Designation …….

Experience ……. (Years)

Date ……..

1. **Do you have debt capital in your firm? (Please tick one)**

   (i) Yes ☐ (ii) No ☐

2. **Do you think there is any relationship between use of debt capital and overall cost of capital of the firm?**

   (i) No ☐

   (ii) Yes (Please specify the relationship and effect) ☐

   ……

   ……

   ……

3. **Does the financial theory concept of "systematic risk" as typically measured by what is called "beta coefficient" ever affect your financial structure policy? (Please tick one)**

   (i) Yes ☐ (ii) No ☐ (iii) Don't know ☐

4. **In your opinion which of the following purpose are most of using debt capital? (Please rank in order of importance; 1 being the most Important and 4 being the least important)**

   (i) To reduce tax liability ☐

   (ii) To magnify return to shareholders ☐

   (iii)To reduce the agency cost ☐

   (iv) To maintain ownership control unchanged ☐

5. **Which tool do you use to measure the degree of financial leverage (i.e. proportion of debt capital in the total capitalization of a firm) is used by the firm? (Please tick mark)**

(i) Total liabilities divided by total assets ☐

(ii) Long term debt divided by total assets ☐

(iii) Long term debt divided by equity ☐

(iv) Long term debt divided by debt plus equity ☐

(v) Earning before interest and taxes (EBIT) divided by total interest ☐

**6. How do you arrange required funds to undertake a new project/activity? (please tick mark)**

(i) Through retained earnings ☐

(ii) Through debt capital ☐

(iii) Through new equity ☐

(iv) Through mix of debt and equity ☐

**7. Is there practice of determining the optimal capital structure in your firm? ((Please tick one)**

(i) Yes ☐ (ii) No ☐ (iii) Don't know ☐

**8. How much percentage do you do you think is the optimal debt capital ratio in a firm? (Please tick mark)**

(i) Less than 20 percent of total assets ☐

(ii) 20 percent to 40 percent of total assets ☐

(iii) 40 percent to 60 percent of total assets ☐

(iv) Above 60 percent of total assets ☐

**7. Indicate the relative importance of the following factors in governing the financing decision. (on the scale of 1 to 5, 1 = the most important and 5 = the least important)**

(i) The corporate tax rate ☐

(ii) The level of depreciation and other non-debt tax shied items ☐

(iii) Cost of financial distress and agency cost ☐

(iv) Voting Control ☐

(v) Projected earning from the assets to be financed ☐

**8. Whose opinion is most influential in setting the firm's target financial structure in Nepalese firm? (on a scale of 1 to 5; 1 = the most important, 5 = the least important)**

(i) Their own management and staffs of analyst ☐

(ii) Investment Banker ☐

(iii) Commercial Banker ☐

(iv) Trade creditors (suppliers) ☐

(v) Comparison with an industrial norms ☐

**9. Given an attractive new growth opportunity that could not be taken without departing from your target capital structure what action is your firm most likely to take? (Please tick one)**

(i) Forgo the growth opportunity ☐

(ii) Deviate from the target capital structure or financing hierarchy ☐

(iii) Cut the dividend ☐

(iv) Sell off other assets ☐

**11. If you have practice of determining the optimal capital structure in your firm, which of the following factors, do you think, are more important in determining optimal capital structure in your firm? (Please rank in order of their importance; 1 being the most important and 7 being the least)**

(i) Collateral value of assets ☐

(ii) Non-debt tax shield (tax saving from other than debt) ☐

(iii) Growth opportunities of business ☐

(iv) Firm size ☐

(v) Fluctuation in income ☐

(vi) Profitability of business ☐

(vii) Liquidity position ☐

**12. How far do you agree / disagree with the following observations on corporate capital structure policy in Nepal? Please rate 1 – 5, where**

**1 = strongly agree** **2 = agree** **3 = ok**

**4 = disagree** **5 = strongly disagree**

| S.N | Statements | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | Capital structure of a firm affects its value. | | | | | |
| 2 | Capital structure of a firm conveys future prospects. | | | | | |
| 3 | Most of the firms do not pay attention in capital structure management decisions. | | | | | |
| 4 | High debt capital increase financial risk of business. | | | | | |
| 5 | Capital structure management is not a major function of financial managers of the firms. | | | | | |
| 6 | Top management's risk-taking propensities will affect the firm's capital structure. | | | | | |
| 7 | Managers do not pay attention towards the management of capital structure of a firm in our country. | | | | | |

**Thank you very much for your valuable time.**