CORPORATE FINANCING POLICY IN NEPALESE ENTERPRISES

A THESIS

SUBMITTED BY

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DECLARATION

I hereby declare that the present study entitled "Corporate Financing Policy in Nepalese Enterprises" submitted to the Faculty of Management, Tribhuvan University is my original work done for the degree of Doctor of Philosophy under the joint supervision of Dr. Manohar Krishna Shrestha, Professor, Tribhuvan University and Dr. Kamal Das Manandhar, Professor, Tribhuvan University. Other works on the subject have been duly acknowledged at the relevant places, and for which I am indebted to them. The present study has not been submitted elsewhere for any other degree or diploma in full or part.

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RECOMMENDATION OF SUPERVISORS

We certify that the thesis entitled “Corporate Financing Policy in Nepalese Enterprises" submitted by Mr. Yuga Raj Bhattarai to the Faculty of Management, Tribhhuvan University for the degree of Doctor of Philosophy was completed under our joint supervision and guidance. The thesis is the candidate's original work. We have carefully read the substance of his thesis.

To the best of our knowledge, the candidate has also fulfilled all other requirements of the Ph.D. program of the Faculty of Management, Tribhuvan University.

We, therefore, recommend that this thesis be considered and approved for the award of the Ph. D. degree.

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VIVA-VOCE SHEET

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is found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as the fulfillment of the requirements for the award of decree of Doctor of Philosophy (Ph.D.) in Management.

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ACRONYMS

A D	Anno Domini
Adj.	Adjusted
AGROW	Assets Growth
ANOVA	Analysis of variance
ASE	Amman Stock Exchange
ATO	Assets Turnover
Avg	Average
BBCL	Bishal Bazaar Company Limited
BNL	Bottlers Nepal Limited
BNTL	Bottles Nepal (Terai) Limited
BRISK	Business Risk
BS	Bikram Sambat
CA	Current Assets
CBS	Central Beauro of Statistics
CEOs	Chief Executive Officers
CFOs	Chief Financial Officers
CL	Current Liabilities
COC	Cost Of Capital
COE	Cost Of Equity
Corr.	Correlation
DSE	Dhaka Stock Exchange
DW	Durbin Watson
e.g.	Example
EBIT	Earnings Before Interest and Taxes
EPS	Earnings Per Share
FHL	Fleur Himalayan Limited
GDP	Gross Domestic Product
GLCs	Government Linked Companies
GROW	Growth
GRUL	Gorakhkali Rubber Udyog Limited
GSE	Ghana Stock Exchange

HDL	Himalayan Distillery Limited
IPO	Initial Public Offerings
KUL	Khadya Udyog Limited
LDR	Long-term Debt Ratio
Lev	Leverage
LIQU	Liquidity
LISREL	Linear function of leverage in Linear Structural Relationship
Lnasset	Natural logarithm of assets.
LTL	Long Term Leverage
MM	Modigliani and Miller
NBBUL	Nepal Bitumen & Barrel Udyog Limited
NBGUL	Nepal Banaspati Ghieu Udyog Limited
NDTS	Non Debt Tax Shields
NEPSE	Nepal Stock Exchange Limited
NLOL	Nepal Lube Oil Limited
NM	Net Margin
NPV	Net Present Value
NS	Not Significant
OHL	Oriental Hotels Limited
OLS	Ordinary Least Square
OM	Operating Margin
P/E	Price Earnings Ratio
PICs	Property Investment Companies
PROF	Profitability
PTCs	Property Trading Companies
R&D	Research and Development
RI	Residual Income
ROA	Return On Assets
ROCE	Return on Capital Employed
ROI	Return On Investment
S.D.	Standard Deviation
SDR	Short-term Debt Ratio
SEBON	Security Board Of Nepal

SHL	Soaltee Hotel Limited
Sig.	Significance
SMEs	Small Medium Enterprises
SPSS	Statistical Package for Social Sciences
SRJML	Shree Raghupati Jute Mills Limited
SSML	Shree Ram Sugar Mills Limited
STC	Salt Trading Corporation
STL	Short Term Leverage
TANG	Tangibility
TL	Total Leverage
TRHL	Taragaun Regency Hotel Limited
TSE	Taiwan Stock Exchange
TSX	Toronto Stock Exchange
TURN	Turnover
UAE	United Arab Emirates
UK	United Kingdoms
UNL	Unilever Nepal Limited
US	United States
USA	United States of America
VIF	Variance Inflation Factor
YAYHL	Yak and Yeti Hotel Limited

CHAPTER I
INTRODUCTION

1.1 General background

The choice of financing policy and its link with optimal risk exposure is central to the economic performance and value of corporations. Financing policy by firms requires managers to identify ways of funding new investments. Corporate financing decisions involve a wide range of policy issues. At the macro level, they have implications for capital market development, interest rate and security price determination, and regulation. At the micro level, they have implications for capital structure, corporate governance, and company development. In the past, there has been an upsurge in research on company finance, particularly aimed at understanding how companies finance their activities and why they finance their activities in these specific ways.

An important financial decision facing firms is the choice between debt and equity capital (Glen and Pinto, 1994). Capital structure decision is important because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has on a firm's ability to deal with its competitive environment. The capital structure of a firm is actually a mix of different securities. Capital structure, which is defined as total debt to total assets at book value, influences both the profitability and riskiness of the firm (Bos and Fetherston, 1993). In general, a firm can choose among different alternative capital structures. It can issue a large amount of debt or very little debt. It can arrange lease financing, use warrants, issue convertible bonds, sign forward contracts or trade bond swaps. It can issue dozens of distinct securities in countless combinations; however, it attempts to find the particular combination that maximizes its overall market value (Abor, 2005).

The capital structure choice has long been an issue of great interest in the corporate finance literature. This interest is due to the fact that the mix of funds (leverage ratio) affects the cost and availability of capital and thus, firms' investment decisions. However, Modigliani and Miller (1958) have shown that in an idealized world without taxes, the value of a firm is independent of the debt-equity mix. In short, capital structure is irrelevant to the value of firm. MM's original insights (1958) and continued developments (1963, 1965) have laid the foundations of modern corporate

finance. The Modigliani and Miller perspective has been supported by other researchers such as Hamada (1969) and Stiglitz (1974). Researchers have judged the Modigliani and Miller article as having the greatest impact on the field of finance of any work published (Cooley and Heck, 1981). Numerous researchers have built careers on the foundation of their (MM) work. DeAngelo and Masulis (1980) have analyzed the effects of taxes on capital structure. Myers (1977) has investigated the optimal levels of debt while Warner (1977) has explored the relationship between bankruptcy costs and capital structure. Jensen and Meckling (1976) have analyzed how managers behave under varying levels of debt and equity. To date, much of the empirical research has been applied to companies listed on advanced stock markets. However, these conclusions are at variance with what one sees in the real world, where capital structure matters and banks will be extremely unwilling to finance a project entirely with debt capital. Additionally, firms may find it difficult to raise external fund, and the costs of alternative forms of external finance may differ. Under market imperfections, firms may attempt to select levels of debt and equity in order to reach an optional capital structure.

The greater the gearing a firm exhibits, the higher the potential for failure if cash flows fall short of those necessary to service the debts. Myers (1984) has pointed out that financial economists have not hesitated to give advice on capital structure, even though how firms actually chose their capital structures remains a puzzle as the theories developed did not seem to explain fully actual financing behavior. This view is supported by Harris and Raviv (1991) who point out that numerous attempts to explain capital structure have proved to be inconclusive. The capital structure decision is even more complicated when it is examined in a poor market context, particularly in developing countries where markets are characterized by controls and institutional constraints.

Since the influential work of MM (1958) on the irrelevance of capital structure in investment decision, a rich theoretical literature has emerged that models firms' capital structure choice under different assumptions. For example, the static trade-off relies on traditional factors such as tax advantage and potential bankruptcy cost of debt (Scott 1976, Modigliani and Miller 1963), while others use the asymmetric information in which debt or equity is used as a signaling mechanism or strategy tool

(Donaldson 1961, Myers and Majluf 1984, Myers 1984, Titman and Wessels 1988, Chung 1993, Wiwattanakatang 1999, Tong and Green 2004 and Chen 2004). Even though financing choices or issues in capital structure have been one of the most extensively researched areas in corporate finance, there is little consensus on how firms choose their capital structure and much remains to be understood about the link between theory and practice of capital structure.

The correlation of capital structure and industry membership receives empirical support in Schwartz and Aronson (1967), Scott and Martin (1975), Hamada (1972), using industry membership as proxy for risk class has found that levered beta values within different industries vary more than unlevered beta values. DeAngelo and Masulis (1980) and Masulis (1983) have used the documentation of this industry effect as argument for the presence of an industry-related optimal capital structure. Their implication is that it is the tax code and tax rate differences across industries that cause the intra-industry similarities in leverage ratios. Lev (1974) has compared operating leverage to industry membership and to systematic risk and has found a positive relationship. Building on Lev's study, Mandelker and Rhee (1984) empirically lend support to the conjecture that firms engage trade-off between operating leverage and financial leverage and argue that due to this trade-off a firm's industry may have some influence on capital structure decisions.

The validity of the modern theory of finance has been tested by researchers. Studies have also investigated the capital structure of firms in various sectors of the economy such as manufacturing firms (Long and Malitz, 1985; Titman and Wessels, 1988), electric-utility companies (Miller and Modigliani, 1966), non-profit hospitals (Wedig *et al*., 1988) and agricultural firms (Jensen and Langemeier, 1996). One of the main conclusions of empirical studies is that industrial classification is an important determinant of capital structure.

Bradely, Jarrell and Kim (1984) have found that the volatility of earnings is a strong inverse determinant of debt and that earnings volatility may be industry related. This may also affect the relationship between the industry membership and capital structure decisions. Further, following Jenson and Mecking (1976) about the free cash

flow argument, it seems that individual industries may be characterized by their growth rates which may influence debt levels in their capital structure.

Miller (1977) has introduced the effect of personal level taxes into the analysis. He argues that individual investors will demand a higher pretax return on debt to compensate for the higher personal tax on interest income. In equilibrium, the investor level tax disadvantage of debt may completely offset the corporate tax benefit, making capital structure irrelevant. However, Miller (1977) assumes that the firm will realize the full value of the debt tax shield. DeAngelo and Masulis (1980) show that in the presence of non-debt tax shields, the firm may not realize the full benefit of the interest expense deduction. In equilibrium, each firm will equate the expected tax benefit of an additional dollar of debt with the expected tax cost to investors. This implies an optimal capital structure for the firm. Numerous studies, including MacKie-Mason (1990), Dhaliwal *et al.* (1992), and Graham (1999), examine the effect of corporate and personal level taxes on firms' financial leverage and incremental financing decision. In general, their findings suggest that firms' capital structure choices correlate with corporate and investor level taxes in a predicted manner. These studies presume that economic considerations drive managers' capital structure decisions, but do not provide evidence that the tax implications of debt financing are reflected in firm value or the cost of capital.

Fama and French (1998) have also investigated whether the tax benefit of leverage increases firm value, but they have found the opposite effect and conclude that non-tax explanations dominate. They also argue that good estimates of how the tax treatment of dividends and debt affect the cost of capital and firm value are a high priority for research. Thus, in addition to determinants of capital structure, the financial planners may face the problem of knowing the impact of leverage on firm's profitability, cost of capital and eventually market value of firm. Thus, this study is mainly focused on these issues.

A better understanding of the issue at hand requires a look at the concept of capital structure and its effect on the firm profitability (Abor, 2005). According to the pecking order hypothesis, firms that are profitable and therefore generate high earnings are expected to use less debt capital than those do not generate high earnings.

Several researchers have tested the effects of profitability on firm leverage. Friend and Lang (1988) and Kester (1986) have found a significantly negative relation between profitability and debt/asset ratios. Rajan and Zingles (1995) and Wald (1999) also confirm a significantly negatively correlation between profitability and leverage. Besides, the high leverage degree generates agency problems among shareholders and creditors that predict negative relationships between leverage and profitability. Graham (2000) concludes that big and profitable companies present a low debt rate. Mesquita and Lara (2003) have found that the relationship between rates of return and debt indicates a negative relationship for long-term financing. However, they have found a positive relationship for short-term financing and equity.

Hadlock and James (2002) conclude that companies prefer loan (debt) financing because they anticipate a higher return. Taub (1975) has also found significant positive coefficients for four measures of profitability in a regression of these measures against debt ratio. Roden and Lewellen (1995) have found a positive association between profitability and total debt as a percentage of the total buyout-financing package in their study on leverage buyouts. Champion (1999) has suggested that the use of leverage was one way to improve the performance of an organization.

Although the effect of capital structure on profitability has been one of the extensively researched areas in corporate finance, there is little consensus about the effect of capital structure on firm's profitability. Studies, however, on the impact of capital structure on firm profitability have been few and have in most of the cases been carried out in developed economies on large and listed firms. It is this vacuum that among others is major issue in the present study which also investigates the effect of capital structure on profitability of listed non-financial firms on the NEPSE in Nepal. Thus, the effect of capital structure on the profitability of listed firms in Nepal has become a scientific area that has not yet been explored in Nepalese finance literature.

The effect of leverage on a firm’s cost of equity has been first examined by Modigliani and Miller (1958). They demonstrate that in the absence of taxes and transactions costs, firm value and the weighted average cost of capital are independent of capital structure. Holding the average cost of capital constant, they show that the cost of equity contains a financial risk premium that is positively related to the firm’s

debt-to-equity ratio. With corporate taxes, Modigliani and Miller (1963) establish that the value of the tax shield provided by the interest expense deduction increases firm value and show that this tax shield reduces the leverage-related premium in the cost of equity capital. This study is concerned with the validity of the proposition that the average cost of capital to a firm is independent of its capital structure.

Starting from the late 1940s, experts in finance have recognized that intelligent manipulation of debt and equity could enhance corporate value via producing an optimal (or near optimal) mix of capital (Tashfeen and Liton, 2010). However, the relationship between capital structure and firm value has been the subject of considerable debate. Throughout the literature, debate has centered on whether there is an optimal capital structure for an individual firm or whether the proportion of debt usage is irrelevant to the individual firm's value (Abor, 2005). On a similar issue, Modigliani and Miller (1958) report that in an idealized world without taxes, the value of a firm is independent of the debt-equity mix and concluded that capital structure is irrelevant to the value of firm. Hamada (1969) and Stiglitz (1974) also support MM's (1958) irrelevance theory. Theory in corporate finance points out that high leverage or low equity/asset ratio reduces agency cost of outside equity and thus increases firm value by compelling managers to act more in the interest of shareholders (Berger and Bonaccorsi di Patti, 2006). Therefore capital structure is deemed to have an impact on a firm value against the position held by Modogliani and Miller in their seminal work of 1958. According to Weston and Brigham (1992), the optimal capital structure is the one that maximizes the market value of the firm's outstanding shares. Fama and French (1998), analyzing the relationship among taxes, financing decisions and the firm's value, concluded that the debt does not concede tax benefits.

There is a growing literature linking managerial beliefs to financing choices. Jenter (2004) shows that CEOs are net sellers of stock when book-to-market ratios are low, suggesting a belief that their firms are overvalued. This evidence, combined with Baker and Wurgler (2002), connects CEO beliefs to financing choices and emphasizes the arbitrage role of rational managers in inefficient equity markets. Heaton (2002) models the financing choices of optimistic CEOs. Empirically, Bertrand and Schoar (2003) and Frank and Goyal (2007b) show that managerial traits matter for financial policy. Ben-David, Graham, and Harvey (2007) relate the mis-calibration of CFOs

revealed in such surveys to a wide range of corporate decisions, including corporate financing. Focusing on corporate financing, the wide range of practitioners' view about decision-making including preference for internal or external financing - which drives the effect of financing on firm value - is not directly tested in Nepalese setting. Thus, this study has analyzed the managers' views about the financing patterns and future performance (profitability) of company as perceived their firms. This study also analyzed the opinions of practitioners about access of the financial market and availability of external financing to be unduly costly or not. Eventually, financial executives' view on impact of capital structure on firm value has been examined.

Finally, the focus of this study is to explore how firms choose their capital structure and point out how the firm maximizes the value by the appropriate mix of various sources of finance including retained earnings, common shares, preference shares and debt. Debt financing may involve issuing of bonds, long term notes payable, leasing and loans from banks. Excessive debt financing makes the firm risky due to bankruptcy cost but it helps to avail tax shield. Different views have been put forward regarding the financing choice (debt-equity mix) in the developed capital market context; there applicability has not been tested in Nepalese reality. Even if there are few studies in the Nepalese contexts but as environment changes, methodology differs and new data are involved in the analysis because of which the results may differ. Thus, to redress and uncover the new evidence on this neglect of liability management, this study seeks to provide insight into financing policies as a whole and specifically the determinants of capital structure and its impact on profitability, cost of capital, and firm value of Nepalese listed enterprises.

1.2 Statement of the problem

The effective management of liabilities is every bit as vital to the financial well-being of the firm as is the management of assets. A misguided financing decision can drag a firm toward bankruptcy as certainty as a misguided investment decision (Scott and Johnson 1982). Financing or capital structure decision is one of the most important strategic decisions facing financial managers. Modigliani and Miller's (1958) classic paper provided the motivation for the huge literature concerning the behavior of corporations' capital structure. The main proposition of their work (Modigliani and Miller, 1958) is that, under a number of assumptions, the value of a company is

independent of its financial structure. Their work has led to the formulation of alternative theories such as the trade-off theory, the pecking order theory and the agency theory (Harris and Raviv, 1991). These theories point out a number of firm specific factors that may affect the capital structure choice of firms.

Moreover, theories in capital structure have been examined by many empirical studies. For example, the determinants of the capital structure choice of US companies has been examined by Taub (1975), Bradley, Jarrel and Kim (1984), Titman and Wessels (1988), Harris and Raviv (1991), Rajan and Zingales (1995), Demirguc-Kunt and Maksimovic (1996), Michaelas *et al.* (1999), Bevan and Danbolt (2000) and Booth *et al.* (2001). Similarly, firms operating in some European countries have been examined by Lasfer (1999), Mira (2001), and Antoniou, Guney and Paudel (2002). Most of financial theories have been developed to explain capital structure, with empirical evidence based upon large firms operating at developed capital market tending to support these theories. The applicability of these financial theories or their relative effects can be questioned when considering the influence of various institutional settings and scale effects upon the cost or even availability of financing alternatives. However, the question as to the whether these arguments are valid for a firm operating in under-developed market, particularly Nepalese firms, has received almost negligible attention.

Financing decisions have gained much attention in finance literature over the years since the seminal works of Modigliani and Miller (1958, 1963), already referred to as MM capital structure irrelevance propositions. Financing decisions vary from country to country, partly explained by institutional and legal environment as well as macroeconomic factors. Most of the studies on the capital structure have been conducted in the context of developed and industrialized nations (Kester, 1986; Harris & Raviv, 1991; Kostyuk, 2011; Sinha, 2011). Few of these studies, however, have also examined international comparison of capital structure determinants (Wald, 1999; Rajan & Zingales, 1995) as well as those in the context of developing countries (Demirguc-Kunt, 1992; Singh & Hamid, 1992; Booth *et al.,* 2001). Empirical works have identified firm characteristics, macroeconomic variables and country institutional factors as determinants of capital structure of firms (Booth *et al*., 2001).

Based on the review of the majority of past empirical results, it can be said that the major determinants of financing or capital structure decisions are firm specific.

The empirical work has so far more or less focused on the determinants of the optimal capital structure. Firms, in the underdeveloped market, are faced with financial distress; volatility in their interest rates, inflation, and tax rates play a significant role in taking decisions about the optimal capital structure decisions (Karadeniz *et al*., 2009). Previous studies on the determinants of capital structures have attempted to define the optimal capital structure for firms from various perspectives such as bankruptcy costs (Berger, Herring and Szego, 1995), agency theory (Jensen and Meckling, 1976; Smith and Warner, 1979) and asymmetric information (Myers and Majluf, 1984). Because of the factors affecting capital structures, no one has truly affirmed an optimal capital structure in practice. A broad range of issues have also been discussed in empirical studies that focus on the determinants of capital structures such as company cartelistic, company strategy, or managing decision. A review of previous studies reveals that the emanating factors from company characteristics but affecting capital structure are: firm size (Myers and Majluf, 1984), profitability (Myers and Majluf, 1984), non-debt tax shields (Modigliani and Miller, 1958; DeAngelo and Masulis, 1984), collateral value of assets (Myers, 1977), operating risks (Myers, 1977), dividend policy (Smith and Warner, 1979), and inflation (Homaifar *et al*., 1994). Among these factors, firm size, collateral value of assets, and inflation are positively correlated to capital structure whereas profitability and non-debt tax shields are negatively correlated but operating risk and dividend policy may have either positive or negative correlation. Therefore, what factors really affect capital structure still remains an unsolved issue in general as well as particularly neglected and untouched issue in Nepalese settings.

Although capital structure literature is replete with studies in the developed and selected developing countries, there is a dearth of similar studies on how the financing decisions of listed firms are made in Nepal. Firms in underdeveloped countries, especially in Nepal, are limited with regard to available financing which is mainly from the commercial banks. Few studies that have sought to explore this issue in selected developed and developing countries show inconclusive results (Demirguc-Kunt & Maksimovic, 1996; Agarwal & Mohtadi, 2004; Abor & Biekpe, 2006). Thus,

the goal for undertaking this study is to uncover the financing patterns, determinants of capital structure and its effect on profitability, cost of capital and firm value in Nepalese context.

The concept of optimal capital structure, based on the notion of asymmetric information, has also been expressed by Myers (1984) and Myers and Majluf (1984). The existence of information asymmetries between the firm and likely finance providers causes the relative costs of finance to vary between the different sources of finance. For instance, an internal source of finance where the funds provider is the firm will have more information about the firm than new equity holders; thus, these new equity holders will expect a higher rate of return on their investments. This means that it will cost the firm more to issue fresh equity shares than using internal funds. Similarly, this argument can be extended with regard to internal finance and new debt holders. The conclusion drawn from the asymmetric information theories is that there is a hierarchy of firm preferences with respect to the financing of their investments and the cost of capital depends on the sources financing.

One of the related issues of corporate financing policies is how the capital structure dynamics affect firm's profitability. According to any capital structure theories, a change in leverage ratio will either move the capital structure closure to or further away from the optimal capital structure that these models predict, which will then be reflected in the equity market. Therefore, profitability is expected to co-vary with the changes of leverage. Examining the relationship between leverage change and firm's profitability provides an alternate venue to test different capital structure theories. A change in capital structure may produce change a firm’s risk profile. For example, despite other things being equal, an increase in a firm’s leverage may increase the default risk, and, as residual claimers, equity holders may demand higher risk premium for holding the stock.

Fama and French (1998), analyzing the relationship among taxes, financing decisions, and the firm’s value, conclude that the debt does not allow for tax benefits. Besides, the high leverage degree generates agency problems among shareholders and creditors that predict negative relationships between leverage and profitability. Therefore, negative information relating debt and profitability obscures the tax benefit of the

debt. Booth *et al.* (2001) have come up with a study which attempts to relate the capital structure of several companies in countries with extremely different financial markets. They conclude that the variables that affect the choice of the capital structure of the companies are similar, in spite of the great differences presented by the financial markets. Besides, they assert that profitability has an inverse relationship with debt level and size of the firm. Graham (2000) concludes that big and profitable companies present a low debt rate.

Mesquite and Lara (2003) have found that the relationship between rates of return and debt indicates a negative relationship for long-term financing. However, they have found a positive relationship for short-term financing and equity. Hadlock and James (2002) concluded that companies prefer loan (debt) financing because they anticipate a higher return. Taub (1975) has also found significant positive coefficients for four measures of profitability in a regression of these measures against debt ratio.

The relationship of the capital structure decisions with the firm's profitability (performance) has been highlighted by a number of theories, mainly, the agency theory, information asymmetry theory, signaling theory and the trade off theory. The most important among them is the agency problem. According to Jensen and Meckling (1976), the influence of leverage on total agency cost is expected to be non-monotonic. Therefore, at low levels of leverage, increases will produce positive incentives for managers and reduce total agency costs by reducing agency costs of outside equity. However, Berger and Bonaccorsi di Patti (2006) show that at some point where bankruptcy and distress become more likely, the agency costs of outside debt overwhelm the agency cost of outside equity, and therefore further increases in leverage lead to higher total agency cost. In all this debate, one important conclusion that has emerged is the fact that, capital structure of a firm has implications for its operations, and, impacts on its profitability.

The pecking order hypothesis suggests that firms are willing to sell equity when the market overvalues it (Myers, 1984; Chittenden *et al*., 1996). Therefore, investors interpret the issuance of equity by a firm as signal of overpricing. If external financing is unavoidable, the firm will opt for secured debt as opposed to risky debt and firms will only issue common stocks as a last resort. Myers and Majluf (1984) maintain that

firms prefer internal sources to costly external finance. Thus, according to the pecking order hypothesis, firms that are profitable and, therefore, generate high earnings are expected to use less debt capital than those that do not generate high earnings.

There is at best mixed empirical evidence in the existing literature (Harris and Raviv 1991, and Myers 2001). Prior studies have emphasized that the measures of firm profitability are usually ratios fashioned from financial statements or stock market prices such as industry-adjusted operating margins or stock market returns. Studies however, on the impact of capital structure on firm profitability have been few and have in most of the cases been carried out in developed economies on large and listed firms. Abor (2005) looks at the effect of capital structure on profitability. Booth *et al*. (2001) have developed a study attempting to relate the capital structure of several companies in countries with extremely different financial markets. They conclude that the variables that affect the choice of the capital structure of the companies are similar, in spite of the great differences presented by the financial markets. Besides, they assert that profitability has an inverse relationship with debt level and size of the firm. Graham (2000) concludes that big and profitable companies present a low debt rate. Mesquita and Lara (2003) have found that the relationship between rates of return and debt indicates a negative relationship for long-term financing. However, they have found a positive relationship for short-term financing and equity. Hadlock and James (2002) conclude that companies prefer loan (debt) financing because they anticipate a higher return. Taub (1975) has also found significant positive coefficients for four measures of profitability in a regression of these measures against debt ratio. Roden and Lewellen (1995) have found a significant positive association between profitability and total debt as a percentage of the total buyout-financing package in their study on leveraged buyouts. Champion (1999) has suggested that the use of leverage is one way to improve the performance of an organization.

A review of past major empirical works reveals that capital structure may have some effect on firm's profitability but that the effect may be either positive or negative. These evidences are mainly from developed economies but the effect of capital structure on profitability is still to be tested in underdeveloped capital market context, especially in Nepalese setting. Thus, a better understanding of the issues at hand

requires a look at the concept of capital structure and its effect on firm profitability in Nepalese context.

Cost of capital has been a popular issue in corporate finance, yet little is known about the cost of capital on a broader menu of emerging markets (Barry *et.al.,* 1998). The cost of capital concept occupies a pivotal place in the theory of financial management as a criterion of allocation capital. A related issue of the financing policies is the determinants of cost of capital which has been an important focus in finance. The overall cost of capital may, of course, be affected by the capital structure of the firm. In spite of the voluminous literature on the cost of capital, the question of the effect of capital structure on the cost of capital still remains unresolved (Pandey 1991).

Although the cost of capital has been a popular issue in corporate finance for a long time, only insufficient attention has been paid to the factors that drive the cost of capital in the Nepalese context. Most of Nepalese companies have debt capital relatively very higher than equity capital. Further, most of the companies are operating at losses to the extent that payment of interest on loan has been serious issues. Without the proper combination of capital structure components in financing of the firm, it would be impossible to minimize the cost of capital. Specifically, this study also concentrates on the examination of relationship between the firm's overall cost of capital and its capital structure decisions.

The relationship between capital structure and firm value has been the subject of considerable debate. Throughout the literature, debate has centered on whether there is an optimal capital structure for an individual firm or whether the proportion of debt usage is irrelevant to the individual firm’s value. Leverage is a powerful tool for a company's management to potentially maximize firm value. Leland and Toft (1991) state that the value of a firm is the value of its assets plus the value of tax benefits enjoyed as a result of debt minus the value of bankruptcy cost associated with the debt. Modigliani (1980) points out that the value of a firm is the sum of its debt and equity and this depends only on the income stream generated by its assets. Pandey (2004) opines that the value of a firm is the sum of the values of all its securities that is, the sum of its equity and debt if it's a leverage firm and the value of only its equity if it is an unleveraged firm. The use of leverage in the capital structure also presents

some challenges for the business appraiser who may be attempting to determine the value of the company and if wealth has been created or destroyed as a result of management's decisions. Highly leveraged firms may have an artificially depressed weighted average cost of capital that boosts the value of the company but which may not adequately reflect the risk profile of the firm's leverage.

The relationship between capital structure and firm's value can best be explained by a brief review of the different theories on capital structure. Traditionalist theories believe that capital structure is relevant in determining a firm's value. But the irrelevance theory of Modigliani and Milller (1958) posit that there is no relationship between capital structure and firm's value. However, their position changes when they consider the effect of tax shield and other imperfection in the capital market. They revise their earlier statement and opine that capital structure is very much related to firm's value. That notwithstanding, Miller (1977) has come up with another argument that capital structure is unrelated to firm's value because the tax benefit which is adduced for the relevance of capital structure in relation to firm's value is offset by the fact that shareholders pay more tax than bondholders.

As long as the choice of capital structure matters for firm value, the innovation in capital structure should also be reflected in the equity market, as equity holders gets the residual claim of the firm. Finance theories suggest that a change in the capital structure indicates a change or review of the firm value which should, therefore, have an impact on stock prices. The presence of bankruptcy costs and favorable tax treatment of interest payments lead to the notion of an “optimal” capital structure which maximizes the value of the firm, or respectively, minimizes its total cost of capital.

Throughout the literature, debates have focused on whether there is an optimal capital structure for an individual firm or whether the proportion or level of debt usage is irrelevant or relevant to the firm's value (Hatfield, Chen and Davidson, 1994). Pandey (2004) opines that the capital structure decision of a firm should be examined from the point of its impact on the value of the firm. He further states that if capital structure decision can affect a firm's value, then firms will like to have a capital

structure which maximizes their value. The aim of a firm should centre, therefore, on the maximization of its value through capital structure decisions.

However, there exists conflicting theories on the relationship between capital structure and firm's value that it becomes necessary to capture them into some broad groups. In addition, McConnell and Servas (1995) posit that the seeds of under investment problem lie in the solution of over investment problem. They investigate the relationship between corporate values, leverage and equity ownership of U.S. firms. They discover that for firms with high P/E ratios or for high-growth firms' value are negatively related to leverage and that in firms with low P/E ratio or low-growth firms, value is positively related to leverage. Their evidence supports the contention that for low-growth firms, leverage acts as a monitoring mechanism to enhance firm value whereas for high-growth firms, leverage causes under investment and destroys the value of a firm.

In addition, the pecking order theory of Myers and Majluf (1984) state that there is a correlation between capital structure and firm's value. This is because a firm's value can increase if the right form of capital is used. This theory advocates that firm's value can be affected positively if a capital structure hierarchy is followed. That is, financing with internal fund when available instead of financing with external fund. And when internal fund is completely depleted, debt should be preferred to equity because of the low transaction cost, tax benefits and other advantages attached to it. The trade-off theory also states that there is a relationship between capital structure and firm's value. This is because a firm's value can increase if the proper debt equity mix is used in the firm.

Consistent with agency costs theory, prior literature indicate that the use of debt is value reducing for high growth firms and it is value enhancing for low-growth firms. Jensen (1986) posits that when firms have more internally generated funds than positive net present value projects; debt forces the managers to pay out funds that might otherwise have been invested in negative net present value projects. This over-investment problem can be lessened if managers are forced to pay out excess funds for serving debt, thereby enhancing the firm's value. Myers (1993) suggests that a firm with outstanding debt may have the incentive to reject projects that have positive

net present value if the benefits from accepting the project accrue to the bondholders without also increasing shareholders' wealth. This under-investment problem can harm the value of the firms, especially for the firms with high levels of future investment opportunities. However, Stulz (1988) argues that debt can have both positive and negative effect on firm value. Aggarwal and Kyaw (2006) also posit that debt can have both positive and negative effects on the value of the firm so that the optimal debt structure is determined by balancing the agency costs and other costs of debts as a means of alleviating the under and over-investment problems. Specially, when firms have surplus cash flows, debt will force managers to pay out funds that might otherwise have been invested in negative net present value projects. However, firms with outstanding debt may have incentives to reject projects that have positive net present value if the benefit from accepting the project accrues to the bondholders without also increasing shareholders' wealth. Therefore, the common message behind the arguments by Jensen (1986), Myers (1993) and Sultz (1988) is that debt can have positive or negative effect on the value of the firm depending on the firm's future investment opportunities.

In summary, there is no universal theory of the debt-equity choice. The study of financing policies seeks to address two-fold problem: the first is to provide an insight into the capital structure and financing policies; secondly to examine how capital structure impacts on profitability, cost of capital and firm's value. Although substantive researches have been conducted related to this subject in the past but most of them are in the developed economies and limited literature are available from the developing countries. So, none can generalize the results of the developed economies in relation to the developing economies without any research. Eldomiaty (2007) asserts that capital market in these emerging market countries is incomplete or not efficient compared to the developed market because of the information asymmetry problems. This creates an environment where financing decisions are attached with a significant level of irregularities for the firms. Nevertheless due to the fast changes in the socio-political and economic factors specific to the context of Nepal and the speed with which business are reshaping leading to both structural changes and policy changes demands new and updated information. Therefore, all these factors further strengthen the need for an updated research on the relevant issues in financing policies in Nepalese context. For this reasons, it is essential to evaluate the level of

financial leverage, sources of financing used as well as its determinants and its relationship with profitability, cost of capital and firm value of firms in Nepal--an underdeveloped market economy. It is noteworthy that the findings of the study help the ongoing debate on capital structure issues related to Nepalese non-financial firms, but it may also serve as a foundation for further studies in this sector. In view of the discussion just made, this study is directed at resolving the following issues:

1. What are the factors affecting the capital structure decisions in Nepalese firms?
2. Does leverage affect the firm's profitability?
3. Does leverage affect the cost of capital of the firm?
4. Does leverage affect the firm value?
5. How are the financing policies perceived by the Nepalese corporate executives?

Though there are considerable researches on these issues in developed economies, virtually no work has been done in the Nepalese context apart from a limited amount of empirical research. Thus, there is a conspicuous gap in the empirical research on financing policies and related prescribed issues in Nepal and this gap requires urgent attention, given that this study is likely to explore fresh and new evidences on the issues raised in the study.

1.3 Objectives of the study

The basic objective of this study is to analyze and examine corporate financing policy of Nepalese firms. The specific objectives are as follows:

1. To investigate the factors affecting capital structure decisions in Nepalese firms,
2. To assess the impact of capital structure on the firm's profitability,
3. To analyze the effect of leverage on the cost of capital,
4. To evaluate the effect of leverage on the firm value, and
5. To analyze the views of corporate executives on financing policies.

1.4 Statement of hypotheses

This study postulates the following testable hypotheses about financing policies in Nepalese listed non-financial companies:

H_1: There is a difference in the factors affecting decisions about the capital structure across manufacturing and non-manufacturing firms.

H_2: Capital structure is likely to affect on the firm's profitability.

H_3: Capital structure is likely to affect the cost of capital of the firm.
H_4: Capital structure is likely to affect on the firm value.

Till date, no significant empirical work has been done on the issues of financing policies in Nepal. Thus, this study has attempted to empirically test whether there are certain variables that affect capital structure and whether capital structure affects firm value in Nepalese companies.

1.5 Research methodology

1. Research design

Research is a fact-finding operation searching for adequate information. The research design adopted in this study consists of descriptive, correlational and casual comparative designs. It is a type of study which is generally conducted to assess the opinions, behaviours, or characteristics of a given population and to describe the situation and events occurring at present. It also includes the systematic collection and presentation of data to give a clear picture of a particular situation and obtain a complete and accurate description of situation. The descriptive research design has been adopted to undertake fact-finding operation searching for the opinions and views related to financing practices of different persons into different organizations for this study. This study has also used correlational research design to establish the directions, magnitudes and forms of the observed relationship between variables**.** Moreover, this study has also adopted casual comparative research design to assess the effect of financing policies on the firm value. This design has also been used to understand the fact that whether it is possible to predict the determinants capital structure and measure the impact of capital structure on profitability, cost of capital and firm value on the basis of different predictor (independent variables).

2. Nature and sources of data

Both secondary and primary data have been used in this study. The reason is simple - one cannot possibly collect all the data required for research oneself. Secondary data sources have been used in all major issues of this study. Primary data, in addition to secondary data, were collected with the intention of obtaining behavioral aspect of corporate financing policy and related issues considered relevant to this study that

were not possible to collect from secondary sources. Thus, data collected from primary sources is considered to complement the evidence from secondary sources.

The qualitative aspects of information relating to capital structure and other issues of corporate financial policies have been collected through primary source and the quantitative aspects of information have been collected from secondary sources. Required data from secondary sources were collected through financial statements of the selected enterprises. These data were collected from the office of the respective companies, Nepal Stock Exchange, and Security Board of Nepal.

The pre-tested questionnaires were used to collect primary data. The detailed of the pre-test questionnaire has been explained in the methodology section of the respective chapter. The survey questionnaires were delivered to the chief executive, general manager, financial managers or treasurers and chief accountant of business firms in different industries.

3. Population and sample size

The listed non-financial enterprises constitute the population of the study. Mainly 18 non- financial enterprises have been selected as sample for the study. However, Specific sample size has been mentioned in the methodology section of respective issue. Much like in other capital structure research, banks and financial companies have been excluded in the sample. These companies are generally guided by directives of central bank in designing their capital structure. The hydro sector and service sector companies are also excluded from the sample due not available of enough data required for analysis. Thus, listed non-financial enterprises should constitute the population of the study. The stratified random sampling technique has been adopted in selecting the enterprises as sample. In this study, the population has been classified into sub-populations (strata) based on industry types: manufacturing and non-manufacturing (hotel and trading). Then randomly chosen a sample from sub-populations provides data to represent subgroups. In this way, 12 enterprises have been selected from manufacturing (strata) sector and the remaining 6 enterprises have been chosen from non-manufacturing (strata) sector. The population and number of enterprises selected for the study have been depicted in Table 1.1.

Table 1.1
Number of enterprises selected for the study

Category (strata)	N	n	n/N (%)
Manufacturing	18	12	66.67
Non-manufacturing(Hotel & trading)	8	6	75.00
Total	26	18	69.23

In Table 1.1, N indicates the total number of listed manufacturing and non-manufacturing enterprises and n indicates the number of enterprises selected for the study. The enterprises sampled for the study represent 69.23% of the population.

However, the determination of an adequate sample size for secondary data analysis depends on the nature and techniques of analysis. An adequate sample size for the correlational study can be calculated based on variables. Although the minimum ratio is 5 to 1, the desired level is between 15 to 20 observations for each independent variable (Hair, Anderson, Tatham & Black 1998, p. 166). Another popular rule of thumb is that a sample must include at least 15 events per predictor variable (Stevens, 2002, p. 143).

Since multiple regression method has been used for this study, the sample size should be as large as possible based on independent variables used in the models. Using the approach suggested by Hair, Anderson, Tatham & Black (1998, p. 166) and Stevens, (2002, p. 143), the minimum sample size for the models used in "Capital Structure and Its Determinants in Nepalese Enterprises", "Effects of Leverage on Profitability in Nepalese Enterprises", and "Effects of Leverage on Firm Value in Nepalese Enterprises", is: $15 \times 7 = 105$, because there are 7 regressors used in each regression models. In the light of minimum requirements, this study has chosen the biggest sample size, as there are 251 observation for "Capital Structure and Its Determinants in Nepalese Enterprises", and "Effects of Leverage on Profitability in Nepalese Enterprises" models. However, there are 155 observations used for "Effects of Leverage on Firm Value in Nepalese Enterprises" models. In these regression analyses, adequate samples have been used compared to minimum sample size requirement as suggested by literature.

There are 5 regressors used in each regression models for measuring "Effects of Leverage on Cost of Capital in Nepalese Enterprises". In line of the approach suggested by Hair, Anderson, Tatham & Black (1998, p. 166) and Stevens (2002, p. 143), the minimum sample size is: 15×5=75 since there are 5 regressors used in each regression models. The 86 observations chosen for the analysis looks appropriate as it were more than required. Thus, as a whole, the sample chosen for secondary data analysis seems adequate for statistical power of the significance testing and the generalizability of the results.

The period covered for the study is 1998 to 2012. This study has chosen 251 observations for analyzing "Capital Structure and Its Determinants in Nepalese Enterprises", and "Effects of Leverage on Profitability in Nepalese Enterprises". However, the observations for measuring "Effects of Leverage on Cost of Capital in Nepalese Enterprises" and "Effects of Leverage on Firm Value in Nepalese Enterprises" have been reduced to 86 observations and 155 observations respectively.

Table 1.2
Enterprises selected, period covered and observations for the study

Ser. No	Name of the Company	Nature of Industry	Period Covered [Year in A.D.]	Observations
1	Bottlers Nepal Limited (Balaju)	Manufacturing	1998-2012	15
2	Nepal Lube Oil Limited	Manufacturing	1998-2011	14
3	Bottles Nepal (Tarai) Limited	Manufacturing	1998-2012	15
4	Unilever Limited	Manufacturing	1998-2012	15
5	Gorakhkali Rubber Udyog Ltd.	Manufacturing	2000-2011	12
6	Himalayan Distillery Limited	Manufacturing	2002-2012	11
7	Bishal Bazaar Co Ltd.	Trading	1998-2011	14
8	Khadya Udyog Ltd.	Manufacturing	1998-2011	14
9	Nepal Bitumen & Barrel Udyog Ltd.	Manufacturing	1998-2011	14
10	Nepal Banaspati Ghieu Udyog Ltd.	Manufacturing	1998-2011	14
11	Salt Trading Corporation	Trading	1998-2011	14
12	Fleur Himalayan Ltd.	Manufacturing	1998-2011	14
13	Shree Ram Sugar Mills	Manufacturing	1998-2011	14
14	Shree Raghupati Jute Mills Ltd.	Manufacturing	1998-2011	14
15	Soaltee Hotel Ltd.	Hotel	1998-2012	15
16	Yak and Yeti Hotel Ltd.	Hotel	1998-2011	14
17	Oriental Hotels Ltd.	Hotel	1999-2012	14
18	Taragaun Regency Hotel Ltd.	Hotel	1998-2011	14
	Total			251

The reasons of reducing observations and other details have been mentioned in the methodology section of the respective chapter. The details of enterprises selected for

study have been shown in Table 1.2. The 18 non-financial companies selected as sample have provided 251 observations for secondary data analysis.

In the case of primary data analysis, the stratified random sampling technique has also been adopted in selecting the sample. The details of the population, actual respondents and sample size adequacy test have been mentioned in the methodology aspect of respective chapter.

4. Method of analysis

A. Secondary data analysis

The nature of the study is descriptive-cum-analytical. The pooled data were analyzed. Selected financial ratios have been calculated. Data from balance sheet, profit and loss account, cash flow statement have been utilized. Several alternative measures of gearing, their pooled and cross-sectional regression analysis, correlation analysis have been made. Further descriptive statistics like: mean, median, standard deviation were calculated. The tables, diagrams, graphs have been used for analyzing the data.

The Model

In this section, ordinary least square regression analysis has been used to investigate the relationship between dependent and independent variables. The model related to the determinants of capital structure is the model that represents as a first step towards the analysis of a corporate financing policy. In this section of the study three measures of leverage like total debt, long-term debt and short-term debt have been used as dependent variables. The explanatory variables selected are measures of company size, liquidity, tangibility, tax, non-debt tax shields, uniqueness, and business risk.

To examine the determinants of capital structure, the following model has been proposed:

$LEV_{it} = \boldsymbol{\alpha} + \sum \beta X_{it} + e_{it}$

Where:

Leverage = f (size, liquidity, tangibility, tax, non-debt tax shield, uniqueness and business risk)

Similarly ordinary least square regression model has been used to estimate empirical evidence related to effect of leverage on profitability. Using the approach adopted by Mathur *et al.* (2001), Abor (2005), Onaolapo and Kajola (2010), Carvalho, Serrasqueiro and Nunes (2013) and as is mostly found in the other literature, the effect of corporate leverage on firm's profitability has been examined by:

$PROF_{it} = \alpha + \sum \beta X_{it} + e_{it}$

Where:

Profitability = f (leverage, assets turnover, size, age, tangibility, growth, and liquidity)

Further, the model for testing the impact of capital structure on cost of capital, the regression model has been developed. Using the approach adopted from Singh and Nejadmalayeri (2004), Omran and Pointon (2004) and Khadka (2006), impact of leverage on firm's cost of capital has been estimated. The OLS model used in the study is as follows:

$COC_{it} = \alpha + \sum \beta X_{it} + e_{it}$

Where:

Cost of capital = f (leverage, beta, assets turnover, liquidity, and age)

Finally, in order to examine the effect of leverage on firm value, using the approach adopted by Wippern (1966), Sarma and Rao (1969) and Adelegan (2007) and Chowdhury and Chowdhury (2010), following regression model has been proposed.

$LnTobin\text{-}q_{it} = \alpha + \sum \beta X_{it} + e_{it}$

Where:

Firm value = f (leverage, profitability, turnover, size, liquidity, asset growth, and business risk)

B. Primary data analysis

The primary data analysis is based on questionnaire survey. The first part of the questionnaire contains the respondents' profile. The second part of the questionnaire encompasses kinds of financing policy practiced by sample companies, factors governing firm's financing decisions, factors affecting firm's choice between short- and long-term debts, factors influencing capital structure, factors influencing firm's profitability, association between capital structure and profitability, methods in

estimating cost of capital, association between leverage and cost of capital, linkage between capital structure and firm value and finally, the focus of capital structure choice by Nepalese sample companies.

The questionnaires contain such questions as patterned simple ranking, Likert scale, multiple choice options, open-ended options and close-ended basis. Under Likert scale and the respondents have been were requested to rate how important the variables are in determining financing policies. The primary data collected from 251 respondents have been tabulated and analyzed, and significant tests have been performed using Chi-square and t-test where relevant. Interviews have also conducted with selected respondents to assess their opinion and views about financing policies and practice.

1.6 Significance of the study

Most of enterprises of non-financial sector in Nepal are either over leveraged or unable to raise needed capital to finance their capital need. These enterprises either report low profit or suffer from heavy losses. The financing cost of the enterprises fluctuates over time. The share price of these enterprises fluctuates over time more and comparatively lower as compared to enterprises of other sectors of the economy. In such a scenario, it is necessary to investigate reliable answer of such discrepancy found in non-financial sector enterprises in Nepal. Existing corporate financing policies have to be uncovered, remodeled and retouched to remove various hurdles faced by Nepalese enterprises. An in-depth study is, thus, essential to identify such obstacles so that they can be removed. This creates a background for smooth and optimal financing that helps to economic development of the enterprises and enhance share price. Thus, this study is considered to be one of the constructive steps as well as a very timely one.

This study offers empirical evidence based on pooled data of non-financial enterprises in Nepal on the issues of determinants of capital structure and its impact on profitability, cost of capital and eventually firm value. In particular, this study makes a significant contribution with practical implications for corporate policy makers, investors, lenders, the wider community and academicians.

This study has provided evidence-based information to develop better plan of how an organization will finance its activities, what amount of money it will need and where it will come from. Finance executives can take better course of action to address the issues, problems or interrelated set of problems for raising capital fund. This study has prescribed appropriate borrowing in relation to equity to improve investors' earnings. This study has prescribed a specific set of preferred financing option an entity should undertake that may provide the framework for all department budgets. Thus, the evidences provided by this study certainly help for a better financing decision making, the formulation of the policies and establish prudent financial goals and priorities for financial planning that could minimize financing costs over the long-term and can maximize firm value of the Nepalese enterprises. It is likely that Nepalese firms will make an effective strategy to design optimal capital structure and improve corporate financing policy. Moreover, financial executives will consider the factors that affect capital structure, profitability, cost of capital, firm value while raising capital fund for their enterprises.

An understanding of the debt and equity position of Nepalese enterprises may help investors make decisions about which stock to buy or sell and how much to spend on a particular stock. This study has provided evidences on preferred circumstances to issue debt and equity and thus investors can make right decisions about buying or selling particular stock.

Similarly, this study provides insight into the average financial risk position of Nepalese enterprises and how Nepalese enterprises manage their corporate debt-equity policy. This information is required to enable creditors and lenders to make better evaluations of the inherent risk of engagement and the related lending/ borrowing decisions. The findings of this study are not only significant to the above-mentioned market participants in Nepal, but also to prospective overseas investors looking for investment opportunities in the non-financial sector in Nepal.

This study has also important implications for academicians because the results of this study are considered to be the valuable teaching material to the teachers of corporate finance as well a basis for researchers and students for conducting further research.

1.7 Limitation of the study

This study has mainly emphasized on the secondary data analysis. However, as primary sources, an opinion of various executives has also been analyzed. The study has focused on the firms from non-financial industries and firms chosen for sample are among the listed firms with Nepal Stock Exchange Limited. Thus, data from Nepal Stock Exchange Ltd., Security Board Nepal, Nepal Rastra Bank, Internal Revenue Department and Annual Report of the sample companies have been utilized for secondary data analysis. Primary data have been used collected through structured questionnaire distributed among corporate executives using mail services as well as personal visit. The study has not considered the issues relating to corporate financing policies of international context. The environmental factors have been excluded in analyzing the issues concerning corporate financial policies. The study period is 1998 to 2012. Since data of the study are of non-experimental type, chance of observation errors may take place. Following are the basic limitations of the study:

1. The study has assumed linear relationship between the dependent and independent variables as used in past literature. Hence, this study has not considered nonlinear relationship between dependent and independent variables.
2. The study is based mainly on annual financial data (although in few cases monthly data has been used) of respective companies. However annual data have their own problems. Mainly, the balance sheet data are as of one particular date and need not represent the whole year. The semi-annually, quarterly, monthly or daily data on required financial variables are not available. Thus, this study is forced to confine to annual data.
3. This study has been completed with several omitted variables and these omitted variables include: different sources of short-term financing used by sample companies, debt maturity structure, lease financing and de-composition analysis of gearing measures. Though these variables are related to the issues of corporate financing policies, the same has not been included in the study due to the lack of reliable data.
4. The period chosen for the study is from 1998 to 2012. The data before 1998 have not been included in the study as very old data may distort recent financing policies and practices. The data of 2012 for some companies could not be included in study as they were not available at the time of collecting data for the purpose of this study in

2013. In general, data for 2012 were supposed to be available in 2013 but some of the selected companies could not complete their audit even.

5. The Maoist insurgency period 1995 - 2005 destabilized the whole economy leading to a decline in income, saving and investment in the economy as a whole. Consequently, during more than one-half of the sample period; sales, earnings and profits declined in the companies selected for this study. Hence, the results of this study may not be comparable to that of the results of the normal period.

6. Financing decisions may vary from country to country, partly explained by institutional and legal environment as well as macroeconomic factors but this study is mainly confined to firm specific factors for analyzing secondary data.

1.8 Organization of the study

This study is organized into seven chapters. Chapter one contains the introductory part of the study. This chapter describes the major issues to be investigated along with the general background, statement of the problem, objectives, statement of hypothesis, research methodology and limitations of the study. Chapter two deals with determinants of capital structure of Nepalese companies. The objective of this chapter is to provide empirical evidence on the determinants of capital structure of Nepalese firms. Capital structure and profitability has been presented in chapter three. The aim of this chapter is to test empirically the effect of capital structure on profitability. Chapter four throws light on the empirical evidence relating to the aspects of capital structure and cost of capital. The main purpose of this chapter is to examine empirically the effect of capital structure on the cost of capital. Chapter five is related to capital structure and firm value and seeks to investigate empirically the effect of capital structure on firm value. Chapter six highlights a survey of financing practices in Nepalese companies. Eventually, chapter seven attempts to present a summary of the key ideas, and makes conclusions and recommendations.

CHAPTER II

CAPITAL STRUCTURE AND ITS DEERMINANTS IN EPALESE ENTERPRISES

2.1. Introduction

Capital structure decisions are crucial for the financial well-being of the firm. Financial distress, liquidation and bankruptcy are the ultimate consequences if any major mis-judgment occurred following any financing decision of the firm's activity. The shape of the capital structure changes from what it was at the inception to what it is at the time of expanding the business. Any change in the capital structure pattern affects the debt-equity mix, which in turn influences the cost of capital. Capital structure is one of the effective tools to ensure the lower cost of capital and thus maximize the wealth of shareholders.

A firm can choose among many alternative capital structures. An optimal capital structure is reached at a point where the cost of the capital is a minimum. Large number of ideas and theories has been developed to discuss the optimal capital structure. Studies on capital structures of corporations have a long history, dating back to the nineteen fifties with the appearance of the works of Lintner (1956), Hirshleifer (1958) and Modigliani and Miller (1958). Barclay and Smith (1995) state that financial economics has made significant progress in explaining the incentives that lead large public corporations to choose particular financing policies.

The theory of capital structure has been initiated by Modigliani and Miller (1958) who discuss about the effect of capital structure on the firm value. Their conclusion is that the "capital structure is irrelevance" which means that the firm value is not influenced by the financial structure. Modigliani and Miller (1963) also explain about the tax shield when firms can pay lower taxes if equity financing and encourage firms to use all debt financing for tax purposes because interest is deductible. Therefore, firms can attain optimal capital structure by practicing this tax saving activities and firms with higher profitability would choose to have high debt to gain tax benefits. However, the pecking order theory (Myers and Majluf 1984; Myers 1984) explains that there are no definite and clear targeted debt ratios which can be targeted by a

particular organization and industry. The model further suggests that any organization and industry will first prefer using internal available funds, then debt and finally external equity. In addition to this, it is now also believed that capital structure decision is also being influenced by competitive environment and industry and an organization in which they operate.

Harris and Reviv (1990) have given one more reason of using debt in capital structure. They say that management will hide information from shareholders about the liquidation of the firm even if the liquidation will be in the best interest of shareholders because managers want the perpetuation of their service. Similarly, Amihud and Lev (1981) suggest that mangers have incentives to pursue strategies that reduce their employment risk. This conflict can be solved by increasing the use of debt financing since bondholders will take control of the firm in case of default as they are powered to do so by the debt indentures. Stulz (1990) said when shareholders cannot observe either the investing decisions of management or the cash flow position in the firm, they will use debt financing. Managers, to maintain credibility, will over-invest if it has extra cash and under-invest if it has limited cash. The author argued that to reduce the cost of underinvestment and overinvestment, the amount of free cash flow should be reduced to management by increasing debt financing.

Another approach to explain the capital structure of firms is the differences in the level of information, which the insiders and outsiders have about the investment opportunities and income distribution of the firm. Myers (1984) has provided theoretical basis for this theory. The author asserted that there exists a degree of asymmetry of information between the firm's managers and investors concerning the real value of firm's present and future investment. Ross (1977) has said that mangers have better knowledge of the income distribution of a firm. When firm issue debt, it may generate positive signals to the outside world about the firm's income distribution suggesting that the firm has stable income and is able to pay the periodic installments and interest payments. In this regard, higher debt may show higher confidence of managers in the firm's smooth income distribution and adequacy of the income. Thus firms in their efforts to increase investors' confidence and thus increase the value of equity will use higher debt in the capital structure.

Some empirical work has also been carried out on the effects of moving away from target or optimal debt ratios. An example of this is the work by Hull (1999). However, the remark by Collins and Sekely (1983) that empirical tests do not appear to have been conclusive for all postulated determinants of financial leverage still seems to apply. Likewise there are some studies that provide evidence on the capital structure determinants from the emerging markets of South-East Asia (Pandey 2001; Pandey *et al.* 2000; Annuar and Shamsher 1993; Ariff 1998). The focus of corporate finance empirical literature has been to identify some stylised factors that determine capital structure.

Regardless of the diverse empirical evidences portrayed by researchers, the study of capital structure primarily seeks to explain firms' financial tactics, as well as, financing decisions on investment activities. Hence, financing may matter for most corporations and their investment behavior may also dependent upon the availability of internal funds and leverage levels. In addition, explicit transaction cost that affects leverage (Strebulaev, 2007; Shivdasani & Stefanescu, 2010; Faulkender, Flannery) warrants firms to have leverage targets (Altinkilic & Hansen, 2000; Leary & Roberts, 2005). However, the strong statement by Brealey and Myers (1996) that explaining capital structure is one of the 10 unsolved problems in finance. Delcoure (2007) argues that despite extensive research on what factors determine optimal corporate capital structure, there has been no consensus on a universal model applicable to the real business world. Thus, it is believed that there is still a need for new study that will fill in gaps in the existing literature dealing with capital structure.

2.2 Review of literature

The review of literature on capital structure its determinants have been organized into:

I. Review of theories of capital structure

II. Review of related studies

III. Concluding remarks

I. Review of theories of capital structure

This section surveys the most important theories of capital structure. The capital structure or financing decisions have gained much attention in finance literature over

the years since the seminal works of Modigliani-Miller (1958, 1963) on capital structure irrelevance propositions. When the taxes and the costs of financial distress are not ignored, the conditional capital structure theories come in (Myers 2001). These theories can be divided into two groups-- either they predict the existence of the optimal capital structure for each firm (static trade-off models) or they declare that there is no well-defined target capital structure (pecking order theory).

Static trade-off models understand the optimal capital structure as an optimal solution of a trade-off. For example the trade-off between a tax shield and the costs of financial distress is in the case of the trade-off theory. According to this theory the optimal capital structure is achieved when the marginal present value of the tax shield on additional debt. In the case of the agency theory the trade-off between agency costs stipulates that the optimal capital structure is achieved when agency costs are minimized. Or the trade-off between the benefits of signaling and the costs of financial distress in the case of the signaling theory implies that a company chooses debt ratio as a signal about its type.

On the other hand, the pecking order theory suggests that there is no optimal capital structure. Firms are supposed to prefer internal financing (retained earnings) to external funds. When internal cash flow is not sufficient to finance capital expenditures, firms will borrow, rather than issue equity. Therefore there is no well-defined optimal leverage, because there are two kinds of equity, internal and external, one at the top of the pecking order and one at the bottom (Harris and Raviv 1991).
The important capital structure theories have been separately described as follows:

a. Naive Theory

The naïve theory of capital structure assumes perfect separation of investment and financing decisions (i.e., the capital structure does not affect the firm's cash flow). Therefore, financing decisions maximizing the value of the firm are decisions which minimize weighted average cost of capital. Moreover, the naïve theory assumes that the cost of debt and the cost of equity remain stable, regardless of the amount of debt and equity issued by the firm. Because the cost of debt is supported to be lower than the cost of equity, the weighted average cost of capital declines with an increasing share of debt in capital structure (increasing leverage). Thus, the weighted average

cost of capital is minimized when the firm is financed entirety by debt. The naïve theory will be refined in the part devoted to the traditional theory of capital structure.

b. Modigliani and Miller Theory

Modigliani and Miller (1958) is a milestone among capital structure studies. In their first proposition, Modigliani and Miller (1958) showed that in the perfect financial market, under certain assumptions, the value of a company is independent of its financing choice. The well-known Modigliani–Miller Theorem is based on several assumptions: in a perfect capital market insiders and outsiders have symmetric information; no transaction cost or bankruptcy cost exists; equity and debt choice becomes irrelevant; and internal and external funds can be perfectly substituted (Chakraborty 2010). Modigliani and Miller (1958) state that market is fully efficient when there are no taxes. Thus, capital structure and financing decisions affect neither cost of capital nor market value of a firm.

In their second proposition, they maintain that interest payments of debt decrease the tax base, thus cost of debt is less than the cost of equity. The tax advantage of debt motivates the optimal capital structure theory, which implies that firms may attain optimal capital structure and increase firm value by altering their capital structures. Bankruptcy and financial distress costs (Myers, 1977) and agency costs (Jensen and Meckling, 1976) constitute the basics of trade-off theory (Karadeniz *et al.,* 2009). Since the seminal Modigliani and Miller (1958) paper showing that, subject to some restrictive conditions, the impact of financing on the value of the firm is irrelevant, the literature on capital structure has been expanded by many theoretical and empirical contributions. Three principal theories aim to explain corporate leverage and its evolution. The three main theories that came up subsequently are the static trade-off theory, the pecking order theory and the agency cost theory.

Modigliani and Miller (1958) comment Proposition I as: "The market value of any firm is independent of its capital structure and is given by capitalizing its expected return at the rate p_k appropriate to its class." Further Modigliani and Miller (1958) add: "The average cost of capital to any firm is completely independent of its capital structure and is equal to the capitalization rate of a pure equity stream of its class." They have contended the presence of the arbitrage that takes place and restores the

equalities. Furthermore, they have defined the expected rate of return on equity of the company. As labeled Proposition II Modigliani and Miller (1958) comment it as follows: "The expected yield of a share of stock is equal to the appropriate capitalization rate p_k for a pure equity stream in the class, plus a premium related to financial risk equal to the debt-to -equity ratio times the spread between p_k and r."

Modigliani and Miller (1958) conclude about the broadly known theory of "capital structure irrelevance", positing that financial leverage does not affect the firm's market value. However, their theory is based on very restrictive assumptions that do not hold in the real world. These assumptions include perfect capital markets, homogenous expectations, no taxes, and no transaction costs. The presence of bankruptcy costs and favorable tax treatment of interest payments lead to the notion of an "optimal" capital structure which maximizes the value of the firm, or respectively minimizes its total cost of capital. Modigliani and Miller (1963) have reviewed their earlier position by incorporating tax benefits as determinants of the capital structure of firms. The key feature of taxation is that interest is a tax-deductible expense. A firm that pays taxes receives a partially offsetting interest "tax-shield" in the form of lower taxes paid. Therefore, as Modigliani and Miller (1963) propose, firms should use as much debt capital as possible in order to maximize their value. Along with corporate taxation, researchers were also interested in analyzing the case of personal taxes imposed on individuals.

c. Traditional Theory

The traditional theory has emerged in response to the Modigliani and Miller theory. It is based on the naïve theory, refining some its findings. The traditionalists assume that the required rate of return on equity rises in a lower degree than determined by Modigliani and Miller Proposition II when leverage of firm is relatively low, but it rises faster than predicted by Modigliani and Miller Proposition II when leverage is relatively high. Concerning the required rate of return on debt, they are in accordance with Modigliani and Miller. Therefore, the overall cost of capital decreases with increasing leverage for low values of leverage, reaching the minimum in some critical point and then rises with increasing leverage. Thus, there exists a leverage for which the weighted average cost of capital is minimized. When a minimum of weighted average cost of capital is achieved, the firm demonstrates optimal capital structure.

The value of the firm is maximized, provided that cash flow of a firm is independent of its capital structure.

d. Static Trade-off Models

Static Trade-Off Models explicate that a firm follows a target debt-equity ratio and then behaves accordingly. The benefits and costs linked with the debt option sets this target ratio. These include taxes, cost of financial distress and agency costs. The static trade –off models generally include the following theories:

(i) Trade-off Theory

The Modigliani and Miller (1958) theory is based on many assumptions which, as in case of any theory, simplify reality. Modigliani and Miller (1958) have tried to bring the theory closer to reality by incorporating the existence of the corporate income tax, however, they were at fault and they had to correct the findings (Modigliani and Miller, 1963). They agree to a positive value of the tax shield in the case when the paid interests are the tax deductible expenses, whereas dividends are not. In this case the value of the firm is equal to the value of the unleveled firm plus the present value of the tax shield. However, if the benefit of the tax shield is admitted, the optimal capital structure is achieved when the firm if financed entirely by debt. It is not a result supported by empirical evidence. Therefore, there should be also some disadvantages of using debt financing. Costs associated with debt financing in case of the trade-off theory are the costs of financial distress (reflecting the costs of bankruptcy, and the agency costs). Therefore, the value of the firm is equal to the value of the unleveled firm plus the present value of tax shields minus the present value of the costs of financial distress. When leverage is low, the benefits of the tax shield on additional debt outweigh the increasing costs of financial distress. However, there is some critical point in which the marginal present value of the tax shield is equal to the marginal present value of the costs of financial distress. In such a point the optimal capital structure is achieved (when leverage is higher than its optimal value, the marginal costs of financial distress exceeds the marginal benefits of the tax shield, lowering the value of the firm).

(ii) Agency Cost Theory

The agency cost theory (Jensen and Meckling, 1976) proposes that the optimal capital structure is determined by agency costs, which include the costs for both debt and equity issue. The costs related to equity issue may include: (a) the monitoring expenses of the shareholders (b) the bonding expenses of the managers and (c) 'residual loss' due to the divergence of managers' decision from those of the shareholder's (Jensen and Meckling, 1976). On the other hand, debt issue increases the shareholders' and managers' incentives to invest in high-risk projects that yield high returns to the shareholders but increase the likelihood of failure that the bond holders have to share if it is realized. If debt-holders anticipate this, a high premium would be charged, which in turn would increase the cost of debt. Thus both equity and debt incur agency costs, and hence the optimal capital structure involves a trade-off between the two types of costs (Chakraborty, 2010).

The agency costs arise from two agency relationships: (1) between shareholders (owners) and debtholders, and (2) between shareholders (owners) and managers (non-owners), both being based on information asymmetry. Conflict between shareholders and debtholders is described by Jensen and Meckling (1976). They have come up with the arguments of why the probability distribution of a firm's cash-flows is not independent of its capital structure. In reference to their study, when a company is highly levered, owners have incentives to engage in highly risky projects that will increase their wealth if they are successful but that will prejudice debtholders if they are not. In other words, higher risk increases the "upside" for stockholders while the downside must be absorbed by the firm's creditors. As a consequence, it becomes necessary to establish control devices in debt contracts. Conflict between debt and equity investors in the case when there is a risk of default is well documented by Myers (1977). He points out that when a firm is likely to go bankrupt, shareholders may have no incentives to provide new capital, and even it is invested in the projects with a positive net present value. The reason is that the shareholders pay all costs, whereas some part of returns may be captured by debtholders. On the other hand, some models show that the incentives of levered shareholders to engage in risky projects are reduced. For example Diamond (1989) introduces a model which is based on reputation. He analyzes the joint influence of adverse selection (different types of firms) and moral hazard (conflict between shareholders and debtholders) problems. A

different reputation-based model has been built by Hirshleifer and Thakor (1992). They analyze the situation in which a manager may manipulate investment policy of the firm in order to develop a personal reputation for high ability.

Diamond (1989) states that the values of a good reputation rise over time, as does the cost of a default. Therefore, over time, the relative payoff of the risky project (a very large payoff when it has a favorable outcome) declines relative to a safe but profitable project. If there is sufficient adverse selection, then a typical equilibrium path for a borrower with access to both types of projects is to choose risky project when "young" and, if able to survive long enough without a default, to switch to safe projects from that point forward. In this formulation, reputation is important because it becomes a valuable asset worth protecting. Harris and Raviv (1991) have stated that although the amount of debt is fixed in Diamond's (1989) model, it is plausible that an extension of the model would yield the result that younger firms have less debt than older ones, other things equal.

A different reputation-based model has been built by Hirshleifer and Thakor (1992). They analyze the situation in which a manager may manipulate investment policy of the firm in order to develop a personal reputation for high ability. In a basic version of the model, there are assumed two types of projects- "good risky" and "safe mediocre" and two types of managers (good and bad). It is assumed that the managerial labour market can distinguish only between success and failure, regardless of the project's type. Thus, a manager's incentive is to maximize the probability of success, while the shareholders are concerned only with the expected return.

The conflict between shareholders (owners) and managers (non-owners) is a classical principal-agent relationship. It is assumed that managers have some scope for pursuing their own interests at shareholders' expense because of asymmetric information and that is the costly mechanisms imposed by principals upon agents in order to prevent these self-interest-performances of theirs that create the costs. Managers have incentives to act in their own interest which may result in actions against the owners' interests. A manager may find it desirable to have a stable cash-flow over time rather than a cash-flow which, while totally higher, has greater variability. Boudreaux (1973) confirms this by empirical evidence showing that the

earnings variability of manager-controlled firms is lower than that of owner-controlled firms. Amihud and Lev (1981) show the "managerial" motive for a conglomerate merger, focusing on mergers in the United States during the period 1961-1970. Managers, as opposed to investors, are shown to engage in conglomerate mergers to decrease their "employment risk" (i.e., the risk of losing job, professional reputation, etc.). Such risk-reduction activities are considered as managerial perquisites in the context of the agency cost model. Donaldson (1984) states that managers were not driven by the maximization of the value of the firm, but rather by the maximization of the corporate wealth (the aggregate purchasing power available to management for strategic purposes during any given planning period).

Another example of the conflict between shareholders and managers is the free cash-flow theory. It shows debt as a solution of the asymmetric information (moral hazard) problem. The free cash-flow theory, as first presented by Jensen (1986) tells that how to treat the firms with extra-high free cash flows. The theory is based on the findings of Rozeff (1982) and Easterbrook (1984) that the payouts of cash to the shareholders reduce the resources under managers' control, thereby reducing managers' power, and making it more likely they will incur the monitoring of the capital markets which occurs when the firm must obtain new capital. Jensen (1986) conjectures that managers have incentives to cause their firms to grow beyond the optimal size, because it increases managers' power by increasing the resources under their control. Based on the study by Murphy (1985), the increase in sales also increases the managers' compensation, which is positively related to the growth in sales. As Jensen (1986) states that the problem is how to motivate managers to disgorge to cash rather than investing it below the cost of capital or wasting it on organizational inefficiencies. The answer to Jenson's problem can be debt which forces the firm to pay out cash. Debt acts as a credible commitment by managers to pay out future free cash flow. However, increased debt has also costs. The free cash-flow theory does not imply that debt issues will always have positive control effects.

The importance of the agency perspective is also shown by the incomplete contracting theory approach to the capital structure. As Hart (1995) states that most of the large literature on capital structure does not (at least explicitly) take an incomplete contracting view, it is worth saying a few words about why incomplete contracting

ideas provide a natural way to think about financial decisions. In the absence of contracting costs, the parties to a transaction would write an initial contract that anticipates all future events. Given that all decisions are specified, it is difficult to find a role for financial structure. A basic model focusing on incomplete contracting theory of debt is presented by Aghion and Bolton (1992). They show that different control arrangements (governance structures) are efficient for different values of monetary returns and private benefits. A model which has important conclusions is formulated by Dewatripont and Tirole (1994). They state that the capital structure of the firm is a disciplining device for managers, as well as an incentive scheme for outsiders.

(iii) Signaling Theory

The Signaling Theory, (originally developed by Ross in 1977), explains that debt may be considered as a way to highlight investors' trust in the company; that is, if a company issues the debt it provides a signal to the markets that the firm is expecting positive cash flows in the future, as the principal and interest payments on debt are a fixed contractual obligation which a firm has to pay out of its cash flows. Thus the higher level of debt shows the manager's confidence in future cash flows. Another impact of the signaling factor, as we have already discussed it in the Pecking Order Theory, is the problem of the under-pricing of equity, If a firm issues equity instead of debt for financing its new projects, investors will interpret the signal negatively; since managers have superior information about the firm than investors, they might issue equity when it is overpriced. Among other explanations about a firm's behavior in choosing its capital structure is agency theory. Jensen and Meckling (1976) identify the possible conflict between shareholders and a manager's interests because the manager's share is less than 100% in the firm. Furthermore, acting as an agent to shareholders, the manager tries to appropriate wealth from bondholders to shareholders by incurring more debt and investing in risky projects. This is consistent with the work of Myers (1977) who argues that, due to information asymmetries, companies with high gearing would have a tendency to pass up positive NPV (net present value) investment opportunities (under-investment problems). Myers therefore argues that companies with large amounts of investment opportunities (also known as growth options) would tend to have low gearing ratios.

A manager having a less than 100% stake in the business may try to use these free cash flows sub-optimally or use it to their own advantage rather than use it to increase the value of the firm. Jensen (1986) suggests that this problem can be somehow controlled by increasing the stake of the manager in the business or by increasing debt in the capital structure, thereby reducing the amount of "free" cash available to managers to engage in their own pursuits (Jensen, 1986; Stultz, 1990). Here the reduction in the cash flow because of debt financing is considered to be a benefit. Stultz (1990) suggests that the agency problem can be solved to some extent if the management stake is increased or the proportion of debt in the capital structure is increased.

The problem of adverse selection has been introduced by the famous paper by Akerlof (1970), who uses the "lemons" market for used cars to illustrate the problem. Stiglitz (1969, 1974) has introduced the concept of asymmetric information in the capital structure theory framework, pointing out that financing decisions can reveal information about a firm future prospect. The model applying the Akerlof (1970) approach to the capital structure problem has been introduced by Ross (1977). It is easy to understand in the form as restated by Klein *et al.* (2002), because they use the notation similar to current theory (e.g., the contract theory). What is known to the market are distributions of cash flows. However the market cannot distinguish between the types, because firms are identical in all other respects. Now, the same logic is used as it is in the case of Akerlof (1970). In pooling equilibrium, all firms are valued identically, i.e., the good firms are undervalued and the bad firms are overvalued. Therefore a good firm has incentive to reveal its type. How is the type of a firm revealed? Ross uses an objective function, the wage contract of the manager, consisting of two components: (1) function related to the firm value, and (2) bankruptcy penalty. Problem the manager solves is to maximize his wage by the choice of the debt level.

Crucial to the Ross (1977) model is that the signal about the type of a firm must be incentive compatible, i.e., it does not pay off for a bad company to mimic it. Ross (1977) model assumes that managers possess inside information not available to investors. Managers of the good firms have incentive to reveal the type of the firm because of their wage contract. The amount of debt chosen acts as a signal: managers

of the good firms choose minimal necessary amount of debt to signal the type of their firms. They incur the increased risk of bankruptcy, however, they signal that the firm is a good one and, therefore, the market values their firms more. Ross (1977) points out that the values of firms will rise with leverage, since increasing leverage increases the market's perception of value.

Similar logic is used in model by Leland and Pyle (1977). They state that manager of a good firm signals the type of the firm by retaining high proportion of ownership. Therefore, such a firm is financed with higher level of debt, in comparison to a bad firm. Incentive compatibility is ensured by the fact that managers are risk-averse, thus, retaining a high proportion of equity is "cheaper" for the manager of a good firm (again, the proportion must be large enough to act as an incentive compatible signal). Of course, other models have followed the pioneering works. Their survey can be found in Klein *et al.* (2002).

(iv) Other Models

There are many models based on various considerations which do not fit the above mentioned aspects. The most prominent are briefly described in this section. They are models based on (1) corporate control considerations and (2) product market interactions (or input market interactions), i.e., using features of the industrial organization theory. The capital structure models linked to the corporate control market exploit a fact that common stock carries voting rights, while debt does not. These models focus mainly on the takeover activities, e.g., Harris and Raviv (1988) and Stulz (1988).

The capital structure models based on the industrial organization theory approach can be classified into two categories. One class of approaches exploits the relationship between a firm's capital structure and its strategy when competing in the product market. A second class of approaches addresses the relationship between a firm's capital structure and the characteristics of its product or inputs (Harris and Raviv, 1991). The first class of models has been initiated by Allen (1985) and Brander and Lewis (1986), whereas the second one by Titman (1984). As Harris and Raviv (1991) conclude: "These theories have explored the relationship between capital structure and either product market strategy or characteristics of products/inputs. The strategic

variables considered are product price and quantity. These strategies are determined to affect the behavior of rivals, and capital structure in turn affects the equilibrium strategies and payoffs. Models involving product or input characteristics have focused on the effect of capital structure on the future availability of products, parts and service, product quality, and the bargaining game between management and input suppliers."

e. Pecking Order Theory

The pecking order theory as developed by Myers and Majluf (1984) and Myers (1984) is yet another consequence of asymmetric information - management is supposed to know more about its firm than outside investors. While the signaling theory assumes fixed investment, Myers and Majluf (1984) analyze a firm with assets-in-place and a growth opportunity requiring additional financing. In order to explain how the model works, it is enough to simplify the Myers and Majluf (1984) approach. Their model shows that the firm is more likely to issue and invest, ceteris paribus, when it is overvalued than when it is undervalued. Thus, the decision to issue equity and invest reveals negative information to the market. Myers and Majluf (1984) also show that the problem is completely avoided when the firm is financed with internal funds or riskless debt. Risky debt causes similar problem as a new equity, however, the value of debt is less sensitive to information asymmetry.

As a consequence of the model, there exists a hierarchy (pecking order) of preferences for sources of financing. Firms prefer internal financing (retained earnings) to external funds. When internal cash flow is not sufficient to finance capital expenditures, firms will borrow rather than issue equity. Therefore, there is no well-defined optimal leverage, because there are two kinds of equity, internal and external, one at the top of the pecking order and on at the bottom. Thus, the amount of debt will reflect the firm's cumulative need for external funds (Myers 2001). The pecking order theory declares that equity will be issued only when debt capacity is running out and financial distress threatens. Investors understand this and interpret the decision to issue shares as bad news about the firm's prospects. That explains why a stock price usually falls when a stock issue is announced. This has been confirmed by many studies, e.g., Asquith and Mullins (1986), Mikkelson and Partch (1986), and Schipper and Smith (1986). Dierkens (1991) shows that the price drop at announcement is

greater when information asymmetry is large (he concludes this using various proxies for information asymmetry). The pecking order theory helps to explain why the most profitable companies generally borrow less not because they have low target debt ratios but because they have internal funds sufficient for their capital investment programs.

Nevertheless, many models has been developed which deconstruct the pecking order theory, e.g., Brennan and Kraus (1987) and Noe (1988). They are based on the assumption that a firm has a richer set of financing choices than in the case of the Myers and Majluf (1984) model. Brennan and Kraus (1987) characterize the conditions under which the adverse selection problem may be the costlessly overcome by an appropriate choice of the financing strategy. As Brennan and Kraus (1987) state: "The conditions require a certain compatibility between the nature of the information asymmetry and the set of financing strategies available to the firm, which may depend upon its pre-existing capital structure." Thus, based on the firm's prior capital structure and the nature of information asymmetry, there may exist no strategy that satisfies the conditions. Brennan and Kraus (1987) provide two examples of possible resolution of information asymmetry: (1) when the earning distributions are ordered by first order stochastic dominance, an equilibrium financing strategy consists of an equity issue combined with a debt retirement, and (2) when the earning distributions are ordered by mean- preserving spread, an equilibrium financing strategy consists of convertible bonds issue.

Example (1) is the similar to the Myers and Majluf (1984) model. In this basic form, there is a firm with outstanding debt and an investment opportunity. There may arise two states of the world, good and bad, which is private information to the firm (it can be also restated as two types of the firms, good and bad). When the good state emerges, the firm issues equity enough to finance its investment opportunity and retire its outstanding debt at face value (debt is riskless in this case). When the bad state appears, the firm issue only equity to finance its investment opportunity. The firm has no incentive to pretend that the good state has arisen, because retirement of its debt face value causes overpayment (debt is risky in the bad debt state) which exceeds the benefits from selling overpriced equity. The firm has no incentives to pretend the bad state when the good state has emerged either, because by doing so its

equity and would be under priced. Therefore in equilibrium, in both states the firm issues equity and accepts a positive NPV investment opportunity. Thus, issuing equity is a negative signal, but issuing equity and using part of the return for debt retirement is a positive signal.

Noe (1988) models the financing decisions of firm as a sequential signaling game. He shows that when insiders (managers) have perfect information about the firms future cash flows (and outsiders do not have), there "exist all–equity pooling equilibria contradicting the existence of a pecking order between debt and equity financing. However, once the set of admissible equilibria is refined by placing appropriate restrictions on the off-equilibrium beliefs of security buyers, debt financing dominates equity financing even when some types do not have access to a positive NPV projects" Noe (1988). When it is assumed that insiders face some residual uncertainty after receiving private information, there may exist the equilibria in which pecking order breaks down in the sense that some firms prefer equity to debt. However even though the pecking order breaks down, Noe (1988) demonstrates that the average quality of firms financing with equity will be lower than quality of firms financing with debt. This financing is consistent with empirical evidence which documents a positive announcement effects from the debt issuance and a negative announcement effects from the equity issuance.

The non-universal theories of capital structure have received much attention in the fields of corporate finance and financial economics for decades. Studies on capital structure exhibits empirical evidence that could not be generalized, reasons being the conditional factors that are attached to each specific theory and presumptions of perfect capital markets. Common conditional capital structure theories include trade-off, pecking order, free cash flow and signaling theories. The trade-off theories give emphasis on debt-tax relationship against the cost of financing, while the free cash flow theory signals high agency costs that lead to firms' overinvestment behavior. Increased in value is achieved through their cash flows that surpass positive investment opportunities. Firms' precariously take a high risk by engaging themselves with high debt levels.

II. Review of related studies

This chapter summarizes the empirical evidence concerning a firm's capital structure and also tries to answer the basic question of knowing about existing corporate capital structure choices. The review of related studies on capital structure and its determinants has been organized into:

i. Review of major studies before 1980s
ii. Review of major studies during 1980s to 1990s
iii. Review of major studies during 2000s to date.

i. Review of major studies before 1980s

The major empirical studies concerning capital structure and its determinants before 1980s have been shown in Table 2.1. As regard to the issue of capital structure, Taub (1975) has attempted to examine the factors influencing the firm's choice of a debt-equity ratio. The author dealt explicitly with the relationship between overall debt equity ratio of the firm and its choice of new financing. The author investigates the relationship between variables for a total of 89 randomly chosen firms, for ten years. The 10 year observations were from 1960 - 1969. Two statistics have been used: the likelihood-ratio and t-test. The empirical results show that differences between return to the firm and long term rate of interest and size had a positive influence on debt equity ratio. The uncertainty of the firm's earning had negative influence on debt equity ratio.

Jensen and Meckling (1976) suggest that the firm's optimal capital structure will involve the tradeoff among the effects of corporate and personal taxes, bankruptcy costs and agency costs, etc. Agency costs rose from separation of ownership and control and conflicts of interest between categories of agents. One of the problems that cause conflict between managers and shareholders is free cash flows. They hypothesize that there is conflict between firm owners and both managers and debt holders. In particular, managers strive to maximize their own gains using company resources, whilst not expending effort in the best interests of their principal equity holders. In this case it is optimal for the firm to pay out all their free cash flow in dividends to avoid any risky and inefficient investment. Consequently it is more beneficial to fund expansion using debt such that its utilization can be formally

monitored by the lender.

Scot (1976) argues that a firm determining the optimal capital structure will issue as much secured debt as possible, because the agency costs of secured debt are lower than those of unsecured debt. Securable assets are considered the fixed assets such as plant and machinery. Thus, firms with securable assets should issue more debt. Therefore, firms that employ larger amount of fixed assets are expected to maintain more debt level that firms with lower fixed assets ratio.

Table 2.1
Major studies on capital structure and its determinants before 1980s

Study	Major finding
Taub (1975)	Differences between return to the firm and long term rate of interest and size had a positive influence on debt equity ratio. The uncertainty of the firm's earning had negative influence on debt equity ratio.
Jensen and Meckling (1976)	Firm's optimal capital structure will involve the tradeoff among the effects of corporate and personal taxes, bankruptcy costs and agency costs.
Scot (1976)	Firms that employ larger amount of fixed assets are expected to maintain more debt level that firms with lower fixed assets ratio.
Carleton and Silberman (1977)	Earnings variability to be highly significant in three regression equations.
Ross (1977)	Investors believe higher levels of debt will imply higher quality and higher future cash flows.
Ferri and Jones (1979)	Industry class is linked to a firm's leverage, a firm's use of debt is related to its size, and operating leverage does influence the percentage of debt in a firm's financial structure.

Carleton and Silberman (1977) have worked with aggregate values for industry and have found that earnings variability to be highly significant in three regression equations. A different measure of industry capital structure was used in each equation and the direction of the relationship was inversely related to in all regression equations.

Ross (1977) proposes signaling effect based on asymmetric information. This theory states that investors believe higher levels of debt will imply higher quality and higher future cash flows. This means that lower quality firms with higher expected costs of

bankruptcy at any level of debt cannot follow the steps of higher quality firms by incurring more debt.

Ferri and Jones (1979) investigate the relationships between a firm's financial structure and its industrial class, size, variability of income, and operating leverage. The study examined possible linkages between a firm's financial structure and its industry class, size, variability in income, and operating leverage. The study developed taxonomy of firms that avoided methodological and conceptual difficulties associated with schemes based solely on SIC codes or on firms' relative rankings in a sample. The results of the study's effort to relate firm characteristics to leverage class can be summarized in this way: (a) industry class is linked to a firm's leverage, but in a less pronounced and direct manner than has been previously suggested;(b) 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; (c) variation in income, measured in several ways, could not be shown to be associated with a firm's leverage; and (d) 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.

ii. Review of major studies during 1980s to 1990s

The major literature on capital structure and its determinants during 1980s to 1990s has been shown in Table 2.2. DeAngelo and Masulis (1980) subsequently propose the static trade-off theory, whereby the advantage conferred by debt in the form of a decreased tax bill was offset by an increase in business risk. They propose a theoretical optimum level of debt for a firm, where the present value of tax savings due to further borrowing is just offset by increases in the present value of costs of distress.

Tamari (1980) investigates the effects of size on financial leverage across countries with particular interest in identifying patterns distinguishing very small firms from their larger counterparts. Data presented by him for the U.S., the U.K., Japan, France and Israel, show that there is more variation in financial leverage across countries than across size. However, he documented some stylized facts about the financial behavior of small firms that were common to all countries studied. These stylized facts are that

they rely more on short-term funds borrow a greater share of their funds from trade and other non-bank creditors and present a higher tendency to finance long-term assets with short-term funding relative to big enterprises.

Table 2.2
Major studies on capital structure and its determinants during 1980s to 1990s

Study	Major finding
DeAngelo and Masulis (1980)	Present value of tax savings due to further borrowing is just offset by increases in the present value of costs of distress.
Tamari (1980)	Firms rely more on short-term funds borrow a greater share of their funds from trade and other non-bank creditors.
Bradley and et.al. (1984)	Firm volatility was significant and negatively related to firm leverage ratios.
Myers (1984)	Profitable firms are less likely to opt for debt financing for new projects as they would be having sufficient funds in the form of retained earnings.
Peterson and Shulman (1987)	Size, age and level of economic development were indeed important determinants of small firms' financial leverage in their small firms' sample.
Friend and Lang (1988)	Measure of risk has a negative impact on leverage, that is, a risky firm borrows less.
Titman and Wessels (1988)	Debt financing might be small for large firms and large for small firms.
Choi, Fabozzi and Yaari (1989)	Optimum leverage is obtained as a result of a fundamental risk-return trade-off for investors who hold non-uniform portfolios of risky equity and debt claims.
Fisher, Heinkel and Zechner (1989)	Even small recapitalization costs lead to wide swings in a firm's debt ratio over time.
Gau and Wang (1990)	Level of debt is directly related to the cost of the investment and inversely to the size of its depreciation tax shield, expected costs of financial distress and market interest rates.
MacKie-Mason (1990)	Negative association between the probabilities to issue debt as opposed to equity.
Harris and Raviv (1991)	Financial leverage is positively related to firm size, asset tangibility and growth opportunity, but is negatively related to firm risk and profitability.
Shuetrim, Lowe and Morling (1993)	Firm size, growth, collateral and cash flow influence the relative costs of debt, the level of demand for and the availability of funds. Real asset prices also influence leverage.
Cosh and Hughes (1994)	SME owners try to use and meet their financing needs based on a pecking order theory.
Allen (1995)	A negative link between growth rates and non-debt tax shields and a firm's level of debt.
Rajan and Zingales	A significant relationship between firms' leverage and variables measuring the

(1995)	firms' size, profitability, assets tangibility and growth prospects.
Rao, Waters and Payne (1995)	Growth and size of the firm are negatively correlated with the leverage of the firm.
Love and Wickramanayake (1996)	Correlation analysis provides an explainable relationship for a number of industries, but overall the results are inconclusive.
Barkham (1997)	Property trading companies are on average more highly-geared than property investment companies.
Carelton and Siberman (1997)	Ultimate determinant of leverage would be the variance, not the rate of return.
Chen, Lensink and Sterken (1998)	Pecking order hypothesis is relevant in explaining the financing choice of Dutch firms, which implies the importance of asymmetric information models in explaining capital structure choice of Dutch firms.
Kim et al. (1998)	Negative correlation coefficient between variability of operating cash flow and financial leverage.
Capozza and Seguin (1999)	Externally managed REITs have a higher debt ratio because external managers are frequently compensated according to the size of assets under management.
Gordon and Lee (1999)	Taxes have a strong effect on debt levels of small firms.
Michaelas et al. (1999)	Positive relationships between i) non-debt tax shield and long-term debt, ii) firm growth and debt, iii) asset structure and debt, and iv) firm size and debt. But level of debt is negatively correlated with profitability.
Ooi (1999)	Asset structure, business orientation, and the level of involvement in property development are significant determinants of the corporate debt policy of property companies.
Theis and Casey (1999)	Debt is significantly inversely related to percentage of shares closely held, dividend yield and price-to-book ratio.

Bradley *et al.* (1984) have found that their measure of firm volatility was significant and negatively related to firm leverage ratios. Myers (1984) states that, because of asymmetries of information between insiders and outsiders the firms prefer internal sources of financing to equity financing. If internal financing is insufficient then they go for external financing, first they apply for bank loans, then for public debts and as a last resort, equity financing is used. Profitable firms are less likely to opt for debt financing for new projects as they would be having sufficient funds in the form of retained earnings.

Peterson and Shulman (1987) have carried out a study that represents a second

example of searching for patterns of financial leverage behavior in small firms across countries, with the difference that in this case many developing countries were included. Findings seemed to signalize that size; age and level of economic development were indeed important determinants of small firms' financial leverage in their small firms' sample. They have even come up with a life cycle model of capital structure, which they allege is built upon results of prior empirical corporate studies as well as of their own work. This model predicts that as firms grow/age they go through stages of development, characterized by low percentage of debt/total assets during the early stages of existence and survival, maximum financial leverage during the intermediate stages of success and becoming established, and low debt/total assets ratios again during the late stage of maturity.

Friend and Lang (1988) claim that consistent evidence has been found in their research. They argue that, in their regression analysis, their measure of risk has a negative impact on leverage, that is, a risky firm borrows less.

Titman and Wessels (1988) investigate the effects of size on financial leverage across countries with particular interest in identifying patterns distinguishing very small firms from their larger counterparts. Evidence based on the U.S., U.K, Japan, France, Israel show that there is more variation in financial leverage across countries than across size. The authors explain that debt financing may be small for large firms and large for small firms.

Choi, Fabozzi and Yaari (1989) have developed a model in which corporate interior optimum leverage is obtained as a result of a fundamental risk-return trade-off for investors who hold non-uniform portfolios of risky equity and debt claims in the absence of market mechanisms, forcing leverage indifference.

Fisher, Heinkel and Zechner (1989) have found that small recapitalization costs lead to wide swings in a firm's debt ratio over time. Rather than static leverage measures, they use the observed debt ratio range of a firm as an empirical measure of capital structure relevance. The results of empirical tests relating firms' debt ratio ranges to firm-specific features strongly support the theoretical model of relevant capital structure choice in a dynamic setting.

Gau and Wang (1990), based on a sample of 1,423 apartment and commercial property transactions in Vancouver between 1971 and 1985 have observed that the level of debt employed in a property acquisition is directly related to the cost of the investment and inversely to the size of its depreciation tax shield, expected costs of financial distress and market interest rates. The applicability of the results to the financial context of property companies at the corporate level has not been tested.

MacKie-Mason (1990) has found a significant negative association between the probability to issue debt as opposed to equity and his two measures of operational risk in two different regression equation specifications. Interestingly, both measures entered the regression equations at the same time without troubling one another.

Harris and Raviv (1991) have found that financial leverage is positively related to firm size, asset tangibility and growth opportunity, but is negatively related to firm risk and profitability. They provide a good review of agency-based models of capital structure and concluded that firms within a specific industry appear to target similar leverage ratios.

Shuetrim, Lowe and Morling (1993) have used a sample of 209 firms, observed annually between 1973 and 1991, to explore both cross-sectional and time variation in financial structure. The study leads to a model that incorporates the major determinants of leverage. The empirical model takes into account the influence of both firm-specific and time-specific effects. The dynamics of leverage are also tentatively explored. The results suggest that a number of firm-related factors influence the relative costs of debt, the level of demand for and the availability of funds. Most important among these are firm size, growth, collateral and cash flow. A number of macro-economic variables are also found to influence leverage. Most important among these are real asset prices which play a significant role in the post-financial deregulation period.

Cosh and Hughes (1994) explain that SME owners try to use and meet their financing needs based on a pecking order theory as follows: firstly, using their "own" money (personal savings and retained earnings); secondly, short-term borrowings; thirdly,

longer term debt; and finally least preferred of all, from the introduction of new equity investors that represents the maximum intrusion. In the nutshell, the pecking order theory suggests that the relationship between leverage and profitability will be negatively correlated because the more profitable the firm, the less need it has to borrow either long-term or short-term.

Allen (1995) has studied real estate limited partnership and has found a negative link between growth rates and non-debt tax shields and a firm's level of debt. Rajan and Zingales (1995), in the investigation on the determinants of capital structure of G7 countries (US, Japan, Germany, France, Italy, U.K, and Canada) have found a significant relationship between firms' leverage and variables measuring the firms' size, profitability, assets tangibility and growth prospects. They suggest that there is a positive relationship between leverage and size and asset tangibility. Meanwhile there is a negative relationship for profitability and growth. Tangibility is positively correlated with leverage in all countries.

Rao, Waters and Payne (1995) have focused on those variables that indicate the level of leverage in firm. Their work shows that there is a negative relation among growth and leverage of the firm. Size of the firm is negatively correlated with the leverage of the firm hence smaller firms are accepted to increase the profitability of going private.

Love and Wickramanayake (1996) have examined the applicability of the theory of optimum capital structure at the industry level, using a sample of 112 Australian companies, over 14 industrial classifications, for the period from 1980 to 1994. The empirical work in the study uses three related, but distinct tests to establish that differences exist in the capital structure of the sample industry groups. Firstly, ANOVA tests are used to measure differences in the debt to equity ratio between industries, as well as to calculate the cross-sectional variance in firm leverage that can be explained by industry classification. Secondly, an OLS regression estimation procedure is applied to calculate whether industrial classification is a significant determinant of financial leverage. Finally, a seemingly unrelated regression procedure is used to test the similarity between a series of nominated industry relationships; namely size, profitability, growth and volatility. The study finds some evidence consistent with capital structure theory being relevant in the sample period and

industries examined, using all three econometric techniques. Following the establishment of differences between the capital structures of the selected industries, the study uses a non-parametric test involving correlation analysis to establish whether macroeconomic shocks could be expected to have a similar effect on the various capital structures. The results of a correlation analysis provide an explainable relationship for a number of industries, but overall the results are inconclusive.

Barkham (1997) has examined the financial structure and ethos of property companies in the UK. The main conclusion of the study is that the classification of property companies as property investment companies (PICs) and property trading companies (PTCs) is valid. PTCs buy and develop property assets with a view to selling them on in the short term, while PICs engage in the acquisition and development of property assets to augment their portfolio which is held for long term. He notes that the PTCs are more focused on profits whereas the PICs are more concerned with delivering returns to their shareholders via share price movements. He also observes that the PTCs operate against the constant danger of insolvency and indeed when the market turns they become unable to meet interest payments almost immediately. Due to their different ethos, the capital structures of property companies in the two categories are not the same. In particular, He observes that during the study period (between 1987 and 1991) the PTCs are on average more highly-geared than PICs. This observation, however, contradicts the prediction of the conventional trade-off models of capital structure that risky firms should employ less debt in their capital structure.

Carelton and Siberman (1997) conclude that the lower the degree of financial leverage adopted, the higher the variability in rate of return on invested capital. Hence, the ultimate determinant of leverage will be the variance, not the rate of return.

Chen, Lensink and Sterken (1998) investigate the determinants of capital structure choice of Dutch firms. By estimating a panel data model explaining both the absolute level of leverage with respect to various factors and the year-to year changes in leverage with respect to the changes of various factors, they find evidence suggesting the relevance of the pecking order hypothesis in explaining the financing choice of Dutch firms, which implies the importance of asymmetric information models in explaining capital structure choice of Dutch firms. They argue that factors based on

agency costs and corporate control considerations are relatively unimportant for the Dutch case. Kim *et al.* (1998) show a highly significant negative correlation coefficient between variability of operating cash flow and financial leverage.

Capozza and Seguin (1999) have found that externally managed REITs have a higher debt ratio because external managers are frequently compensated according to the size of assets under management. This gives them every incentive to gear up as much as possible to maximize their own personal remuneration, whilst internal managers are more concerned about escalating interest expenses.

Gordon and Lee (1999) have used "US Statistics of Income" balance sheet data on all corporations to compare the debt policies of firms of different sizes and found that taxes have a strong effect on debt levels of small firms.

Michaelas *et al.* (1999) gathered data from the Lotus One-Source Database of UK small firms and have found positive relationships between i) non-debt tax shield and long-term debt, ii) firm growth and debt, iii) asset structure and debt, and iv) firm size and debt. These authors have also found that the level of debt is negatively correlated with profitability.

Ooi (1999), employing the panel data methodology, examines the capital structure determinants of 83 property companies quoted in the UK. The empirical test reveals how the debt-equity structure of the companies is influenced by the various firm-specific attributes and macro-economic factors. In particular, the evidence shows that asset structure, business orientation, and the level of involvement in property development are significant determinants of the corporate debt policy of property companies. Financial distress consideration also has a significant influence. In addition, the empirical evidence shows that corporate property managers take into consideration the prevailing market sentiment and borrowing costs when making the debt-equity choice. Corporate performance and tax burden, however, do not appear to have any significant effect on the capital structure decision of property companies.

Theis and Casey (1999) examine the relationship between various agency factors and debt of property management firms in the UK. Findings indicate that debt is

significantly inversely related to percentage of shares closely held, dividend yield and price-to-book ratio. Size, measured by sales volume, appears to be insignificant in determining debt level.

iii. Review of major studies during 2000s to date.

The major related studies on capital structure and its determinants during 2000s to date have been revealed in Table 2.3. Keister (2000) argues that during economic transition, the capital structure of companies might be affected due to shortage of financing from the state. Colombo (2001) investigates the capital structure of Hungarian firms using a cross-section and a panel data approach. The study uses a panel consisting of approximately 1100 observations, over five years, of Hungarian firms to investigate the presence of constraints to these firms in achieving their optimal capital structure and the efficiency of the banking sector in providing credit. The data set is composed of balance sheet data and information on market structure for 1100 firms from 1992 to 1996. Evidence is found of imperfections that constrain firms in the achievement of their optimal capital structure, but also some positive indications: there are no distortions typical of the planned system and no signs of the presence of soft budget constraints. There is evidence of the existence of a pecking order in firms' financing choices suggesting the presence of forms of financial market imperfections that constrain them in the achievement of their optimal capital structure. The results suggests that Hungarian banks seem to have chosen the second way that banks actively trying to resolve the informational problems, allocating funds where it was possible to obtain adequate and correct collateral provisions, looking at firms' long-term growth opportunities firms, etc.

Table 2.3
Major studies on capital structure and its determinants during 2000s to date

Study	Major finding
Keister (2000)	During economic transition, the capital structure of companies might be affected due to shortage of financing from the state.
Colombo (2001)	Existence of a pecking order in firms' financing choices suggesting the presence of forms of financial market imperfections that constrain them in the achievement of their optimal capital structure.
Heshmati (2001)	Observed capital structure exceeds the target, and that adjustment towards the target level is very slow.
Omet and Nobanee	Company size and retained earnings divided by total assets are significant

(2001)	determinants of leverage.
Antonion *et al.* (2002)	Capital structure decisions of firms were not only affected by its own characteristics but also by its surrounding environment. The surrounding environment may affect the firm's capital structure.
Antonoiu, Guney and Paudyal (2002)	Size of the firm positively affects the leverage ratio. While the relationship between fixed asset ratio and level of leverage was mixed means positive in Germany but negative in France and UK.
Bevan and Danbolt (2002)	Determinants of gearing appear to vary significantly, depending upon which component of debt is being analyzed.
Bhaduri (2002)	Financial mix of the firm is influenced by firm size, growth, and uniqueness. Notably, collateral value of assets and tax shield factors did not shown up as important explanatory variables.
Huang and Song (2002)	A significant positive relationship between leverage ratios and the firm size. Ownership structure also affects leverage. The static tradeoff model seems better in explaining capital structure.
Nivorozhkin (2002)	Negative relationship between leverage and proportion of tangible assets is found. The more profitable companies had less debt than less profitable ones.
Voulgaris (2002)	The ratio of debt to total assets has a strong correlation with the net profit and turnover of capital assets.
Voulgaris, Asteriou and Agiomirgianakis (2002)	Asset utilization, gross and net profitability and total assets growth have a significant effect on the capital structure of large-size enterprises.
Cassar and Holmes (2003)	Asset structure, profitability and growth are important determinants of capital structure and financing. The results support static trade-off and pecking order arguments proposed by theoretical models.
Chen and Hammes (2003)	Firm size, profitability, tangibility, market to book ratio have significant impact on firms' choice of capital structures. Results support conventional capital structure theories to a very high degree.
Esperanca *et al.* (2003)	Leverage is positively correlated with firm size, asset composition, and firm growth and negatively correlated with firm's profitability.
Frank and Goyal (2003)	The most reliable factors are median industry leverage (+ effect on leverage), bankruptcy risk as measured by Altman's Z-Score (- effect on leverage), firm size as measured by the log of sales (+), dividend- paying (-), intangibles (+), market-to-book ratio (-), and collateral (+).
Korajczyk and Levy (2003	Both macroeconomic conditions and firm specific factors have an effect on firms financing choices.
Wolfgang and Fix (2003)	Firms with less investment opportunities apply more leverage. Leverage has a direct relation with the tangibility of assets. More profitable firms use less leverage.

Baral (2004)	Size, growth rate and earning rate are statistically significant determinants of capital structure of the listed companies.
Bauer (2004)	Leverage of a company is positively correlated with size and it is negatively correlated with profitability, tangibility and non-debt tax shields.
Chen (2004)	Financial leverage in Chinese firms decreases with profitability. Additionally, growth opportunities and tangibility are positively related to debt in China.
Deesomsak *et al.* (2004)	Growth opportunities, non debt tax shield, liquidity and share price performance have a negative effect on leverage, whilst firm size has a positive effect.
Hall, Hutchinson and Michaelas (2004)	The collateral appears to be the strongest and for growth being the weakest in determining capital structure.
Buferna, *et al.* (2005)	Profitable companies were externally financed and prefer short-term debt sources. Public companies use both short-term and long-term debt.
Chen and Strange (2005)	Profitability and ownership structure are negatively related to capital structure. Size and risk of the firms are positively related to the debt ratio.
Frank and Vidhan (2005)	Relation between leverage and size of firm is positive. A positive relation among leverage and tangibility of assets of firm is also documented.
Gaud, Hoesli and Bender (2005)	Both corporate governance and market timing impact upon capital structure. Internal financing is preferred over external financing but companies limit future excess of slack.
Mackay and Phillips (2005)	Firm's financial leverage depends on its natural hedge, the actions of other firms in the industry, and its status as entrant, incumbent, or exiting firm.
Maghyereh (2005)	Size, tangibility, profitability, growth opportunity, and earnings volatility exert significant effects on the capital structure choice of Jordanian firms.
Shah (2005)	Firm specific effects on the use of debt exist. No support to trade off theory for textile sector of Pakistan. Some support for pecking order theory.
Song (2005)	Short-term debt comprises a considerable part of Swedish firms' total debt. Significant differences are found in the determinants of long and short-term forms of debt.
Faulkender and Peterson (2006)	Firms that have access to public bond market, usually have a large amount of leverage.
Hijazi and Tariq (2006)	Tangibility of assets and growth found to be positively correlated with leverage. Usage of short term financing is higher than long term financing.
Tran and Khoig (2006)	The size of the company and business risks has a positive relationship with debt ratio.
Eldomiaty (2007)	A positive relationship between firm growth and debt.
Eriotis (2007)	There is a negative relationship between the debt ratio of the firms and their growth, their quick ratio and their interest coverage ratio. Size appears to maintain a positive relationship with debt ratio.

Mazhar and Nasr (2007)	Government owned and private companies of Pakistan use different patterns of financing, and that government owned companies employ more leverage than private companies.
Overesch and Voeller (2007)	Higher tax benefit of debt has the expected significant positive impact on companies' financial leverage. Capital structures of smaller companies react more heavily to higher tax rates on equity financing.
Qian et al. (2007)	Firm size, tangibility and state ownership are positively related with firm's leverage ratio. Profitability, non-debt tax shields and volatility have a negative relationship with the leverage ratio.
Salwani *et al.* (2007)	Asset intensity and profitability are significant determinants of capital structure.
Shah and Khan (2007)	Tangibility variable assures the prediction of trade-off theory. The growth variable confirms the agency theory hypothesis whereas profitability approves the predictions of pecking order theory.
Abor (2008)	Age of the firm, size of the firm, asset structure, profitability, risk and managerial ownership are important in influencing the capital structure decisions of Ghanaian firms.
Huat (2008)	Leverage ratio of Malaysian companies is mainly driven by four factors, namely the profitability, company size, liquidity, and growth.
Jong, Kabir and Nguyen (2008)	Tangibility and firm size in half of the countries have a positive effect on long-term debt ratios at market value, whereas growth opportunities and profitability have a negative effect.
Joshua (2008)	Large size firms as well public sector firms require debt financing while small medium enterprises (SMEs) require equity financing.
Overesch and Voeller (2008)	Higher tax benefit of debt has the expected significant positive impact on a company's financial leverage. Substitutive relationships between non-debt tax shields and the effect of the corporate tax rate on capital structures.
Qian *et al.* (2008)	Size, tangibility, and ownership structure are positively associated with the firm's leverage ratio, while profitability, non-debt tax shields, growth and volatility are negatively related to the firm's leverage ratio.
Rafiq, Iqbal and Atiq (2008)	Firm size, profitability, income variation, non-debt tax shield (NDTS) and growth were found as significant variables for determining leverage.
Achy (2009)	Negative relationship is found between asset tangibility and both aggregate leverage and short-term debt ratio. The impact of growth is positive on short-term leverage. Profitability exerts a positive effect on long-term leverage and a negative one on short-term leverage.
Bastos, Nakamura and Basso (2009)	Return on assets has a negative effect and size has a positive one across different leverage ratios. The GDP growth is found to have a negative effect on the total indebtedness.
Chikolwa (2009)	Profitability, growth opportunities and operational risk are negatively related

	to leverage, whilst size is positively related.
Degryse, Goeij and Kappert (2009)	Capital structure decision of Dutch SMEs is consistent with the pecking order theory. Maturity matching principle in SME capital structure: long term assets are financed with long term debt, while short term assets are financed with short-term debt.
Gill *et al*. (2009)	Leverage is negatively correlated with collateralized assets and firm's profitability.
Park and Kim (2009)	Managerial overconfidence may lead to increase leverage.
Roberts and Sufi (2009)	Incentive conflicts between firms and their creditors have a large impact on corporate debt policy.
Gurcharan (2010)	Profitability and growth opportunities are negatively correlated with the debt to total assets ratio. Non-debt tax shield negatively affects the stated leverage ratio. Stock market development and the GDP growth rate have negative effect on the debt to total assets ratio.
Khrawish and Khraiwesh (2010)	Growing companies and companies with high levels of tangible assets tend to use short-term debt rather than long-term debt. Large and profitable companies are less likely to use short-term debt and tend to use less debt overall.
Mashar and Nasr (2010)	Asset tangibility and profitability (ROA) are negatively correlated with debt. Size, growth rate and tax rate is positively related with leverage.
Prahalathan (2010)	Direction of the explanatory variables such as, tangibility, profitability, firm size and non-debt tax shields with total debt largely consistent with the explanations of trade - off theory.
Zhang (2010)	Profitability, tangibility and size are positively and growth is negatively related to the debt/equity ratio, and age is in inconsistent relationship with the debt/equity ratio of British manufacturing SMEs.
Baharuddin, Khamis, Mahmood and Dollah (2011)	Profitability of the construction companies is significant negatively relations to debt ratio while size, growth and assets tangibility are positively significant in relations to total debt.
Chen and Chen (2011)	Firm size, profitability and asset structure can be considered explanatory variables of capital structure.
Dincergok and Yalciner (2011)	Profitability has a negative impact on debt ratios, while tangibility has a positive impact - on long-term debt ratios. Interest rates and real GDP growth affect the total debt ratio negatively, whereas the stock market development and public sector debt affect it positively.
Doku, Adjasi and Kumankuma (2011)	Stock market development is indicated to have a positive effect on the capital structure decisions of listed firms.
Feld, Heckemeyer and Overesch (2011)	Debt characteristics, econometric specifications, and the set of control-variables affect tax effects. Meta-regressions results predict a marginal tax effect on the debt ratio.

Ibrahim and Masron (2011)	Size, profitability and tangible asset are significantly related to long term debt. Size and tangible assets have a persistent and consistent negative and significant relationship with long term debt.
Mishra (2011)	Capital structure of the profit making Public Sector Undertakings is affected by Asset Structure, Profitability and Tax. Asset Structure and Profitability are positively and negatively related to leverage respectively. Tax and leverage are negatively related.
Olayinka (2011)	Negative relationship between leverage and growth opportunities, leverage and tangibility, but positively related to liquidity as well as size.
Sayeed (2011)	Tax rate, firm size, collateral value of assets has positive impact in determining leverage. Agency costs and non debt tax shields are negatively impacting on leverage.
Kumar, Anjum and Nayyar (2012)	Capital structure decision of the pharmaceutical companies has very little effect on its investment pattern.
Lim (2012)	Profitability, firm size, non-debt tax shields, earnings volatility and non-circulating shares are influence factors in financial sector. Chinese institutional characteristic affects the capital choice decision.
Pinkova and Kaminkova (2012)	Stages of birth, growth and decline are typical with higher level of debt use. The equity capital is preferred in the maturity stage. The relation between the life stage and capital structure exists.
Sabir and Malik (2012)	Profitability is negatively related to leverage, whereas liquidity, size and tangibility have positive relationship with leverage. An optimal capital structure exists.
Tamulyte (2012)	Determinants of capital structure were similar in The Baltic States and Russia as well: Credit market development and Tangibility had the biggest influence when making financing decisions.

Heshmati (2001) has formulated a dynamic adjustment model to specify and estimate the unobservable optimal capital structure using observable determinants. The optimal level varies, allowing for deviations of observed leverage from optimal leverage. This model is specified in such a way that the speed of adjustment towards the optimal level is firm and time specific. Identification of determinants and estimation of the level of optimal capital structure and speed of adjustment allow for flexible determination and adjustment of the effective level of capital structure. Empirical analysis is based on a large sample of Swedish micro and small firms. They find that the observed capital structure exceeds the target, and that adjustment towards the target level is very slow.

Omet and Nobanee (2001) examine the capital structure of listed industrial companies in Jordan. Using firm level panel data, the mean leverage ratios and the mean ratios of long term debt to total debt are calculated during the time period 1978-1998. Based on the statistical analysis, they found that company size and retained earnings divided by total assets are significant determinants of leverage. Furthermore, it was found that fixed assets to total assets and total assets are the only significant determinant factors of the debt ratios.

Antonion *et al.* (2002) have found that the capital structure decisions of firms are not only affected by its own characteristics but also by its surrounding environment. The surrounding environment may affect the firm's capital structure for different reasons, such as the deterioration or the improvement in the state of economy, the existence of a stock market and the size of a firm for its leverage ratio.

Antonoiu, Guney and Paudyal (2002) have investigated determinants of capital structure a leverage ratio of French, German and British firms with the help of penal data. Their results suggest that size of the firm positively affects the leverage ratio. They analyze relation of profitability, size of firms, fixed assets. This study identifies a positive impact on firm's size on leverage. While the relationship between fixed asset ratio and level of leverage was mixed means positive in Germany but negative in France and UK. This shows that tangibility of assets is more significant in bank borrowing in Germany. The effect of all these factors on leverage depends on financial environment and tradition of the country in which firm operates.

Bevan and Danbolt (2002) have examined the capital structure of 822 UK companies, and have found that the determinants of gearing appear to vary significantly, depending upon which component of debt is being analyzed. In particular, significant differences are found in the determinants of long- and short-term forms of debt. Given that trade credit and equivalent, on average, accounts for more than 62% of total debt, the results are particularly sensitive to whether such debt is included in the gearing measure. It is argued, therefore, that analysis of capital structure is incomplete without a detailed examination of all forms of corporate debt. The determinants of gearing appear to vary significantly, depending upon which component of debt is being analyzed.

Bhaduri (2002) analyzes the capital structure choice in a sample of 363 Indian firms between 1989 and 1995 by employing the factor analytic approach. His results suggest that the financial mix of the firm is influenced by firm size, growth, and uniqueness. Notably, collateral value of assets and tax shield factors do not show up as important explanatory variables.

Huang and Song (2002) have investigated the determinants of capital structure of companies in China, using firm level panel data, the mean leverage ratios and the mean ratios of long-term debt to total debt. They have found a significant positive relationship between leverage ratios and the firm size. They have employed a new database, which contains the market and accounting data from more than 1000 Chinese listed companies up to the year 2000, to document the characteristics of these firms in terms of capital structure. As in other countries, leverage in Chinese firms increases with firm size, non-debt tax shields and fixed assets, and decreases with profitability and correlates with industries. They also report that ownership structure affects leverage. Different from those in other countries, leverage in Chinese firms increases with volatility and firms tend to have much lower long-term debt. The static tradeoff model rather than pecking order hypothesis seems better in explaining the features of capital structure for Chinese listed companies.

Nivorozhkin (2002) investigates the determinants of the capital structures of Hungarian companies listed on the Budapest Stock Exchange during 1992-1995. Hungarian companies have very low leverage ratios. His empirical findings indicate that the negative relationship between leverage and proportion of tangible assets is primarily caused by the lack of long-term debt financing. The relationship between leverage and the size of the company provides some indication of the importance of trade credits for the companies. The more profitable companies have less debt than less profitable ones. Manufacturing firms and firms with the state among their major shareholders enjoy higher levels of debt financing relative to other companies.

Voulgaris (2002) analyzes capital structure and profitability, growth and structure of the assets in the industrial sector. The study examines the determinants of capital structure of the industrial sector, in the large Greek enterprises during the period

1986-1998. The study concludes that the structure of assets and the rate of growth and net profit, has no effect on the structure of capital for large projects and the ratio of debt to total assets has a strong correlation with the net profit and turnover of capital assets.

Voulgaris, Asteriou and Agiomirgianakis (2002) analyze the determinants of the capital structure of the large firms manufacturing sector in Greece. The panel data of a random sample of large Greek enterprises have been utilized. Their findings suggest that asset utilization, gross and net profitability and total assets growth have a significant effect on the capital structure of large-size enterprises. They suggest that in order to improve capital structure, Greek manufacturing large-size enterprises need to achieve higher asset utilization and profit margins through economies of scale attained mainly by higher exports. Moreover, governmental measures aiming to support large-size enterprises efforts should focus their impact on alleviating taxation, reducing bureaucratic burdens, minimizing market imperfections and subsidizing applications of new technology.

Cassar and Holmes (2003) investigate the determinants of capital structure and use of financing for small and medium sized enterprises. Hypotheses utilizing static tradeoff and pecking order arguments have been empirically examined using a series of firm characteristics including: size, asset structure, profitability, growth and risk. The hypotheses developed have been tested using a large Australian nationwide panel survey. The results suggest that asset structure, profitability and growth are important determinants of capital structure and financing. For asset structure the direction of the influence is reliant upon the capital structure or financing measure employed. The results generally support static trade-off and pecking order arguments proposed by theoretical models.

Chen and Hammes (2003) analyze factors influencing firms' leverage. They have used market capital ratio and book capital ratio and book debt ratio as the leverage measure. They used an unbalanced panel for 7 countries: Canada, Denmark, Germany, Italy, Sweden, UK, and US. They find that firm size, profitability, tangibility, market to book ratio have significant impact on firms' choice of capital structures. Tangibility is positively related to leverage in all three models, while

profitability shows a negative significant relation to leverage. The size variable is significant for all three models. The impact of the market-to-book ratio varies in the "book-debt"-ratio model but shows a negative significant relation for all countries in the market leverage model except Denmark. It is possible that by taking into account of the other variables, this variable is crowded out in the leverage measures based on accounting data. Their results support conventional capital structure theories to a very high degree. The major advantage of their panel data approach is that we capture both the cross section and time dimensions and the estimations are both efficient and consistent.

Esperanca *et al.* (2003) have used the Portuguese Central Bank (Banco de Portugal) to collect 995 small manufacturing firms' data between 1992 and 1996. They have found that leverage is positively correlated with i) firm size, asset composition, and firm growth and ii) negatively correlated with firm's profitability.

Frank and Goyal (2003) have examined the relative importance of 39 factors in the leverage decisions of publicly traded U.S. firms. The pecking order and market timing theories do not provide good descriptions of the data. The evidence is generally consistent with tax/bankruptcy tradeoff theory and with stakeholder co-investment theory. The most reliable factors are median industry leverage (+ effect on leverage), bankruptcy risk as measured by Altman's Z-Score (- effect on leverage), firm size as measured by the log of sales (+), dividend- paying (-), intangibles (+), market-to-book ratio (-), and collateral (+). Somewhat less reliable effects are the variance of own stock returns (-), net operating loss carry forwards (-), financially constrained (-), profitability (-), change in total corporate assets (+), the top corporate income tax rate (+), and the Treasury bill rate (+). Using Markov Chain Monte Carlo multiple imputations to correct for missing-data-bias the author find that the effect of profits and net operating loss carry forwards are not robust.

Korajczyk and Levy (2003) argue that both macroeconomic conditions and firm specific factors have an effect on firms financing choices. Wolfgang and Fix (2003) conclude that firms with less investment opportunities apply more leverage that is in accordance to both theories and leverage has a direct relation with the tangibility of assets. They also suggest that more profitable firms use less leverage.

Baral (2004) has examined the determinants of capital structure-size, business risk, growth rate, earning rate, dividend payout, debt service capacity, and degree of operating leverage-of the companies listed to Nepal Stock Exchange Ltd. as of July 16, 2003. Eight variables multiple regression model has been used to assess the influence of defined explanatory variables on capital structure. In the preliminary analysis, manufacturing companies, commercial banks, insurance companies, and finance companies were included. However, due to the unusual sign problem in the constant term of the model, manufacturing companies were excluded in final analysis. The study shows that size, growth rate and earning rate are statistically significant determinants of capital structure of the listed companies.

Bauer (2004) analyzes capital structure of listed companies in Visegrad countries during the period from 2000 to 2001. The results are based on the database, which assembles financial reports of listed firms. In general, leverage of these firms is relatively low if measured in book value, but it is relatively high if assessed in market value. Quasi-maximum likelihood estimation is used in order to investigate the determinants of capital structure. According to the results, leverage of a company is positively correlated with size and it is negatively correlated with profitability, tangibility and non-debt tax shields. There is a negative relationship between leverage measured in market value and growth opportunities. Moreover, leverage decreases with volatility, albeit on a lower level of statistical significance.

Chen (2004) has found that financial leverage in Chinese firms decreases with profitability and it is consistent with existing literature. Additionally, growth opportunities and tangibility are positively related to debt in China.

Deesomsak *et al.* (2004) have found that growth opportunities, non debt tax shield, liquidity and share price performance have a negative effect on leverage, whilst firm size has a positive effect, supporting many predictions made by capital structure theories. In their study, managers tend to make different decisions on capital structure internationally where there are different country considerations. They have also found that the impact by explanatory variables has been altered by Asian financial crisis.

Hall, Hutchinson and Michaelas (2004) point out that there are variations in both SME capital structure and determinants of capital structure between the countries surveyed. The collateral appears to be the strongest and for growth being the weakest. There are variations in the effects of the determinants on capital structure between countries. The variations could well be due to differences in attitudes to borrowing, disclosure requirements, and relationships with banks, taxation and other national economic, social and cultural differences.

Buferna *et al.* (2005) investigate the determinants of capital structure of Libyan private and public companies utilizing data from 1995 to 1999. Their finding is that debt has been decomposed into three categories: short-term, long-term and total debt. The results indicate that profitable Libyan companies were externally financed and prefer short-term debt sources. The main public companies use both short-term and long-term debt. Growing companies tend to rely on their internal funds and large companies tend to have higher leverage.

Results from Chen and Strange (2005) from their study on Chinese Listed Companies shows that profitability is negatively related to capital structure at a high significant level. Meanwhile the size and risk of the firms are positively related to the debt ratio. They have figured out that tax is not a factor in influencing debt ratio. Ownership structure has a negative effect on the capital structure. They conclude that firms with higher institutional shareholdings tend to avoid using debt financing, a behavior that can be explained by entrenchment effects.

Frank and Vidhan (2005) assert that there are a large number of variables that appear to be related to debt ratio of the firm but only few factors have significant effect on debt ratio. They have found that relation between leverage and size of firm is positive. For tangibility of assets Empirical results showed a positive relation among leverage and tangibility of assets of firm.

Gaud, Hoesli and Bender (2005), using a sample of over 5,000 European firms, have documented the driving factors of capital structure policies in Europe. Controlling for dynamic patterns and national environments, they show how these policies cannot be reduced to a simple trade-off or pecking order model. Both corporate governance and

market timing impact upon capital structure. European firms limit themselves to an upper barrier to leverage, but not to a lower one. Debt constrains managers to payout cash, and equity may become cheap during windows of opportunity. Internal financing, when available, is preferred over external financing, but companies limit future excess of slack as it constitutes a potential source of conflict.

Mackay and Phillips (2005) examine the importance of industry to firm-level financial and real decisions. It has been found that in addition to standard industry fixed effects; financial structure also depends on a firm's position within its industry. In competitive industries, a firm's financial leverage depends on its natural hedge, the actions of other firms in the industry, and its status as entrant, incumbent, or exiting firm. Financial leverage is higher and less dispersed in concentrated industries, where strategic debt interactions are also stronger, but a firm's natural hedge is not significant. Their results show that financial structure, technology, and risk are jointly determined within industries.

Maghyereh (2005) examines the determinants of the target capital structure of Jordanian manufacturing firms. The study extends the empirical work on capital structure in two ways. First, it uses a dynamic model which sheds light on the dynamic nature of the capital structure adjustment process by firms. Second, the study employs a panel data analysis and GMM estimation techniques that control for unobserved firm-specific effects and the endogeneity problem. The findings suggest that Jordanian firms have target leverage ratios and they adjust to them relatively fast. The author concludes that size, tangibility, profitability, growth opportunity, and earnings volatility exert significant effects on the capital structure choice of Jordanian firms.

Shah (2005) investigates the effect of pre and post financial market reforms on corporate debt policy and explores the evidences for static trade off theory and Pecking order theory in financing decisions of Textile Sector of Pakistan. The analysis depicts that reforms have statistically significant effect on debt policy of textile industry. Negative coefficient of profitability decreased from 0.85 to 0.23 which changed its strong negative relationship with debt to weaker negative relationship with debt and improved its weaker relationship with tangible assets to

strong positive relationship with debt as evident from coefficient 0.29 to 0.61. This improvement can be attributed to the financial market reforms. However during the total period under analysis the industry remained under the same debt burden of 82 percent of its assets. High operating expenses and cost of goods is associated reason of financial distress. Results show on average, the industry in the ten years (1995-2004) earned nothing. To capture the firm specific effect, fixed effect model has been used. The evidences of firm specific effects on the use of debt exist. Analysis gives no support to trade off theory for textile sector of Pakistan. However, there is some support for pecking order theory.

Song (2005) analyzes the explanatory power of some of the theories that have been proposed in the literature to explain variations in capital structures across firms. In particular, this study investigates capital structure determinants of Swedish firms based on a panel data set from 1992 to 2000 comprising about 6000 companies. Swedish firms are on average very highly leveraged, and furthermore, short-term debt comprises a considerable part of Swedish firms' total debt. An analysis of determinants of leverage based on total debt ratios may mask significant differences in the determinants of long and short-term forms of debt. Therefore, this paper studies determinants of total debt ratios as well as determinants of short-term and long-term debt ratios. The results indicate that most of the determinants of capital structure suggested by capital structure theories appear to be relevant for Swedish firms. The author also finds significant differences in the determinants of long and short-term forms of debt.

Faulkender and Peterson (2006) have reported that capital availability only depends on firm characteristics. They look into firms that have access to public bond market, which measured by having debt ratio, usually have a large amount of leverage. Also, market frictions that make the capital structure relevant may also be associated with the firms' source of capital.

Hijazi and Tariq (2006) analyze determinants of capital structure of cement industry of Pakistan with the help of OLS regression. They have found that size of firms and profitability were negatively correlated with leverage. Hence this rejects the static trade off theory, which shows a positive relation between size of the firm and

profitability. This shows that firms in cement industry use more equity and less debt. Tangibility of assets and the growth have been found to be positively correlated with leverage. All the results are significant except the size of the firm. They conclude that in developing countries like Pakistan, cement industry usage of short term financing is higher than long term financing.

Tran and Khoig (2006) have studied the capital structure of small and medium-sized enterprises in Vietnam, during the period 1990-2001.Their study depend not only on the characteristics of the company, but also on the management behavior which play an important role in external financing and the relationship between the firms and the banks which has an important impact in determining the leverage ratio, which is therefore a clear in public companies more than in private companies and the size of the company and business risks has a positive relationship with debt ratio and found that profitability and asset structure do not have a clear impact on the debt ratio.

Eldomiaty (2007) has used 99 firms from 14 non-financial industries and found a positive relationship between firm growth and debt. He states that researchers have decided to take India as sample of emerging market and evaluate performance of firms against capital structure after the comparison to the developed markets like America, Europe etc. He has also found that capital markets are less efficient and suffered from higher level of asymmetry in terms of information in emerging and developing markets than capital markets in developed countries.

Eriotis (2007) has used panel data procedure for a sample of 129 Greek companies listed on the Athens Stock Exchange during 1997-2001. The number of the companies in the sample corresponds to the 63 per cent of the listed firms in 1996. The firm characteristics are analyzed as determinants of capital structure according to different explanatory theories. The hypothesis that is tested in this study is that the debt ratio depends on the size of the firm, the growth of the firm, its quick ratio and its interest coverage ratio. The firms that maintain a debt ratio above 50 per cent using a dummy variable are also distinguished. The findings of this study justify the hypothesis that there is a negative relation between the debt ratio of the firms and their growth, their quick ratio and their interest coverage ratio. Size appears to maintain a positive relation and according to the dummy variable there is a differentiation in the capital

structure among the firms with a debt ratio greater than 50 per cent and those with a debt ratio lower than 50 per cent.

Mazhar and Nasr (2007) discuss the determinants of capital structure of Pakistani firms they selected a sample from Pakistani companies registered on Islamabad Stock Exchange. The sample is divided into two sub-samples of private and government owned companies to make comparison between both sectors. The sample comprised 91 Pakistani companies out of which 80 companies are private and 11 are government owned covering the period of 1999-2006. Tangibility, Size, Growth rate, Tax Provision, ROA and Profitability are used as independent variables, while Leverage is the dependent variable. For analysis purpose descriptive statistics, Spearman's correlation and Regression analysis are used. The Results imply that government owned and private companies of Pakistan use different patterns of financing, and that government owned companies employ more leverage than private companies.

Overesch and Voeller (2007) analyze whether both personal and corporate taxation have an impact on companies' capital structure choices. They empirically investigate the impact of the difference in taxation of debt and equity financing on capital structures. Their empirical results, based on a comprehensive panel of European firm level data, suggest that a higher tax benefit of debt has the expected significant positive impact on companies' financial leverage. Moreover, they confirm substitutive relationships between non-debt tax shields and the effect of the corporate tax rate on capital structures. They also suggest that debt shares are positively affected by the level of dividend taxes and corporate profit taxes, whereas the taxation of personal interest income has only minor impact. Furthermore, they pointed that the capital structures of smaller companies react more heavily to higher tax rates on equity financing.

Qian *et al.* (2007) have examined the six determinants of capital structure for Chinese listed companies over the period of 1999-2004. The static panel-data models showed that firm size, tangibility and state ownership are positively related with firm's leverage ratio. However, factors such as profitability, non-debt tax shields and volatility have a negative relationship with the leverage ratio.

An empirical study done by Salwani *et al.* (2007) have selected 20 companies of the property sector in the Malaysian market and have used five independent variables: property asset intensity, size, growth, profitability and interest rate. They have suggested that property asset intensity and profitability are significant determinants of capital structure while on the other hand, size and growth rate do not appear to have any significant effect on the capital structure.

Shah and Khan (2007) have used two variants of panel data analysis. They attempt to find the determinants of capital structure of KSE listed none-financial firms for the period 1994-2002. Pooled regression analysis is applied with the assumption that there were no industry or time effects. However, using fixed effect dummy variable regression, the coefficients for a number of industries were significant showing there are significant industry effects hence they have accepted the later model for their analysis. They have used six explanatory variables to measure their effect on leverage ratio. Three of their variables are significantly related to leverage ratio whereas the remaining three variables are not statistically significant in having relationship with the debt ratio. Their results approve the prediction of trade-off theory in case of tangibility variable whereas the earning volatility and depreciation variables fail to confirm to trade-off theory. The growth variable confirms the agency theory hypothesis whereas profitability approves the predictions of pecking order theory. Size variable neither confirms to the prediction of trade-off theory nor to asymmetry of information theory.

Abor (2008) compares the capital structures of publicly quoted firms, large unquoted firms, and small and medium enterprises (SMEs) in Ghana. Using a panel regression model, the study also examines the determinants of capital structure decisions among the three sample groups. The results show that quoted and large unquoted firms exhibit significantly higher debt ratios than do SMEs. The results do not show significant difference between the capital structures of publicly quoted firms and large unquoted firms. The results reveal that short-term debt constitutes a relatively high proportion of total debt of all the sample groups. The regression results indicate that age of the firm, size of the firm, asset structure, profitability, risk and managerial ownership are important in influencing the capital structure decisions of Ghanaian firms. For the SME sample, it has been found that factors such as the gender of the

entrepreneur, export status, industry, location of the firm and form of business are also important in explaining the capital structure choice.

As examined by Huat (2008), in his study regarding capital structure, the impact of managed float on the overall leverage ratios of Malaysian companies during the period July 1999-July 2007 is the leverage ratio of Malaysian companies and is mainly driven by four factors, namely the profitability, company size, liquidity, and growth.

Jong, Kabir and Nguyen (2008) analyze the direct and indirect impacts of firm-specific factors and country-specific factors of a number of firms from 42 developed and developing countries. They have found that tangibility and firm size in half of the countries have a positive effect on long-term debt ratios at market value, whereas growth opportunities and profitability have a negative effect. With respect to the firm's risk and tax ratios, no plausible results could be obtained. The bond market development and GDP growth rate have a positive impact, while creditor right protection has a negative impact on the long-term debt ratios at market value. What's more, they indicate that market/bank-based financial systems and the stock market development have negative effects on the estimated coefficient of tangibility. On the other hand, the negative impact of profitability and liquidity is further strengthened when more domestic capital funds are accumulated. Enforcement by the legal system limits the effect of firm the size.

Joshua (2008) states that large size firms as well public sector firms require debt financing while small medium enterprises (SMEs) require equity financing to generate optimal performance and results. Furthermore, he elaborated that equity financing should be encouraged in the initial stages of a firm's existence which will provide a sound base to firm in order to expand by debt financing.

Overesch and Voeller (2008) analyze whether both personal and corporate taxation have an impact on companies' capital structure decisions. They investigate the effect of the difference in taxation of debt and equity financing on capital structures. Their empirical results, based on a comprehensive panel of European firm-level data, suggest that a higher tax benefit of debt has the expected significant positive impact

on a company's financial leverage. Particularly, they find evidence that the capital structures of smaller companies respond more heavily to changes in the tax benefit of debt. Additional analysis confirms that not only corporate taxes are relevant for corporate financial planning, but variation in capital income tax rates at the shareholder level implicates significant capital structure adjustments as well. Moreover, they find substitutive relationships between non-debt tax shields and the effect of the corporate tax rate on capital structures.

Qian *et al.* (2008), on the data for 650 publicly listed Chinese companies over the period of 1999-2004, reveal that size, tangibility, and ownership structure are positively associated with the firm's leverage ratio, while profitability, non-debt tax shields, growth and volatility are negatively related to the firm's leverage ratio.

Rafiq, Iqbal and Atiq (2008) examine the determinants the capital structure of listed firms in the chemical industry of Pakistan. The study has analyzed 26 of 39 firms in the chemical sector, listed at the Karachi Stock Exchange for the period 1993-2004 using pooled regression in a panel data analysis. Six regressors i.e. firm size, tangibility of assets, profitability, income variation, non-debt tax shield (NDTS) and growth have been employed to examine their effects on leverage. The results show that these six independent variables explain 90% of variation in the dependent variable and, except for firm tangibility; results were found to be highly significant.

Achy (2009) has used a panel dataset covering 550 non-listed manufacturing firms over the period 1998-2003 and has investigated both long-term and short-term measures of leverage with the objective of understanding the factors that shape debt-equity choice as well as debt maturity structure. Their analysis reveals the existence of a negative relationship between asset tangibility and both aggregate leverage and short-term debt ratio. However, no clear cut relationship between asset tangibility and long-term debt is uncovered. Small firms tend to increase their debt instead of opening their capital to outside investors and larger firms seem to rely much more on their retained earnings for their long-term financial needs. For short-term debt, size does not appear to matter. The impact of growth is positive on short-term leverage and irrelevant for long-term leverage. Finally, profitability exerts a positive effect on long-term leverage and a negative one on short-term leverage.

Bastos, Nakamura and Basso (2009) have conducted an analysis covering five major economies in Latin America. The effect of current ratio, tangibility, profitability, growth opportunities, market-to book, tax, size, risk, GDP growth, GDP per capita, and inflation are tested. In their work, according to the results of the country-by-country analysis; return on assets, tangibility, and the current ratio have a significant negative effect on the total accounting indebtedness ratio as well as the total market value indebtedness ratio. The effect of size and market-to-book ratios is positive on the total accounting indebtedness ratio, yet negative when the market value leverage ratio is used. According to the results of pooled regression, the return on assets has a negative effect and size has a positive one across different leverage ratios. The GDP growth is found to have a negative effect on the total indebtedness at market value.

Chikolwa (2009) has studied a sample of 34 A-REITs and has found that profitability, growth opportunities and operational risk are negatively related to leverage, whilst size is positively related. He also finds merit in both Pecking order and Trade off theories.

Degryse, Goeij and Kappert (2009) have investigated small firms' capital structure, employing a proprietary database containing financial statements of Dutch small and medium-sized enterprises (SMEs) from 2003 to 2005. They have found that the capital structure decision of Dutch SMEs is consistent with the pecking order theory: SMEs use profits to reduce their debt level, and growing firms increase their debt position since they need more funds. Furthermore, they document that profits reduce in particular short term debt, whereas growth increases long term debt. This implies that when internal funds are depleted, long term debt is next in the pecking order. They also find evidence for the maturity matching principle in SME capital structure: long term assets are financed with long term debt, while short term assets are financed with short-term debt. This implies that the maturity structure of debt is an instrument for lenders to deal with problems of asymmetric information. Finally, they find that SME capital structure varies across industries but firm characteristics are more important than industry characteristics.

Gill *et al.* (2009) have collected data from 158 American service firms. Through

regression analysis the authors have found that leverage is negatively correlated with collateralized assets and firm's profitability.

Park and Kim (2009) examine the empirical relationship between managerial overconfidence and leverage of firms listed on Korean Stock Market during the period from 1985 to 2007. They have used the Business Survey Index from Bank of Korea as proxy measure of managerial overconfidence. First, they have constructed the basic models whose dependent variable is leverage and explanatory variable is managerial overconfidence and control variables are market to book ratio, firm size, tangibility and profitability. In the basic model, managerial overconfidence is positively and significantly related to both book-value leverage and market-value leverage. All the control variables (MB, SIZE, TNG, PRF) are significantly related to both book-value leverage and market-value leverage. Second, they have also constructed the expansion model which added the lagged term of the leverage the basic model. In the expansion model, managerial overconfidence is significantly positive to book-value leverage, but not significant market-value leverage. All the control variables (MB, SIZE, TNG, PRF) are significantly related to book-value leverage and most control variables (MB, TNG, PRF) are significantly related to market-value leverage. They further estimate the adjustment speed of book-value leverage at 0.3842 and the adjustment speed of market-value leverage at 0.1804. They conclude that managerial overconfidence may lead to increase leverage.

Roberts and Sufi (2009) show that incentive conflicts between firms and their creditors have a large impact on corporate debt policy. Net debt issuing activity experiences a sharp and persistent decline following debt covenant violations, when creditors use their acceleration and termination rights to increase interest rates and reduce the availability of credit. The effect of creditor actions on debt policy is strongest when the borrower's alternative sources of finance are costly. In addition, despite the less favorable terms offered by existing creditors, borrowers rarely switch lenders following a violation.

Gurcharan (2010) has analyzed the determinants of capital structure in four selected ASEAN countries, namely Malaysia, Indonesia, Philippine, and Thailand. The effect of profitability, growth opportunities, non-debt tax shield, and size factor on capital

structure decisions have been examined in that work, which is extended by adding country-specific factors such as the GDP growth rate, stock market size, the banking sector development and inflation. As for the firm-related analysis, it has been shown that, profitability and growth opportunities are negatively correlated with the market debt to total assets ratio in all countries, and statistically significant for three of the countries. Non-debt tax shield negatively affects the stated leverage ratio, but is statistically significant in only one country. The signs of the size factor are significant and positive in two of the countries. The results of the country-specific effects analysis show that the stock market development and the GDP growth rate have a significant and negative effect on the market-debt to total assets ratio.

Khrawish and Khraiwesh (2010) have examined the capital structure of listed industrial companies on Amman Stock Exchange (ASE) over the period (2001- 2005). Hypotheses are based on comparing the relationships between Leverage ratio (Lev 1), LTD/TD (Long-term debts/total debts) and five explanatory variables that represent size, tangibility, profitability, long-term debt and short-term debt. To test those relationships regression analysis for Leverage ratio (Lev 1) and TD LTD model was used to explain determinants of the capital structure of Jordanian industrial companies on the time period (2001-2005). There was a significant positive relationship between leverage ratio (Lev 1) and size (TA), Tangibility (Tang), long-term debt (LTD) and short-term debt (STD) and there was a significant negative relationship between leverage ratio and Profitability of the firm. In other words, the results of this study showed that a significant positive relationship between LTD/TD and size (TA), Tangibility (Tang), and long-term debt (LTD) and there was a negative relationship between LTD/TD and short-term debt of the firm. Also, the results showed that Total assets, Tangibility, Long-term debt, had a positive correlation with LTD/TD. While, short-term debt had a negative correlation with LTD/TD. As well as, Jordanian industrial companies are depending on equity for financing their investments, where, the equity of Jordanian industrial companies represents about (70%) from their total finance. Despite the fact that this correlation matrix ignores joint effects of more than one variable on leverage, the Long-term debt, and Short-term debt are positively related to Tangibility and Total assets. Profitability has a negative correlation with short-term debt and total debt ratios. This implies that (1) Growing companies and companies with high levels of tangible assets tend to use short-term debt rather than

long-term debt. (2) Large and profitable companies are less likely to use short-term debt and tend to use less debt overall.

Mashar and Nasr (2010), based on Pakistani evidence, suggest that asset tangibility, profitability and ROA are negatively correlated with debt. Whereas size, growth rate and tax rate is positively related with leverage.

Prahalathan (2010) have analyzed the relationship between capital structure determinants and leverage level of the listed companies in SriLanka. Using a multiple regression analysis, the leverage behavior of the listed manufacturing companies in Colombo Stock Exchange Market in SriLanka has been examined during the period of 2003-2007. The final sample consists of 19 manufacturing companies. Dependent variable that is, leverage level of the companies, is measured by long- term debt ratio, short-term debt ratio and total debt ratio. Capital structure determinants (independent variables) are measured by capital intensity, tangibility, profitability, firm size and non-debt tax shield. Findings showed that the direction of the explanatory variables such as, tangibility, profitability, firm size and non-debt tax shields with total debt largely consistent with the explanations of trade - off theory.

Zhang (2010) has investigated into the determinants of capital structure for the small and medium sized enterprises (SMEs) in British manufacturing industry and the effects of product category on the determinants of capital structure. 220 SMEs from British manufacturing industry are selected for testing the six hypothesized relationships regarding the determinants of capital structure. Results suggest that profitability, tangibility and size are positively and growth is negatively related to the debt/equity ratio, and age is in inconsistent relationship with the debt/equity ratio of British manufacturing SMEs. Product category does exert effects through the determinants of capital structure and profitability is the most important determinant through which product category imposing effects on capital structure.

Baharuddin, Khamis, Mahmood and Dollah (2011) have examined the debt and equity structure for the construction companies listed in the Bursa Malaysia market during a seven-year period from 2001 to 2007. This sample data have been derived from financial statements of 42 companies with a number of observations totaling

294. The dependent variable used is debt ratio and expressed by total debt divided by total assets while the independent variables are profitability, size, growth and assets tangibility. Using panel data method, the results show that the profitability of the construction companies is significant negatively relations to debt ratio while size, growth and assets tangibility are positively significant in relations to total debt. The results of the study suggest that construction companies depend heavily on debt financing compared to equity financing for expansion and growth. The findings also indicate that profit is reduced when the companies are using more debt.

Chen and Chen (2011) present empirical evidence on the determinants of capital structure and firm value in a newly industrialized country-Taiwan. The firm characteristics are analyzed as determinants of capital structure according to different explanatory theories. The investigation has been performed using a sample of 647 companies listed on the Taiwan Stock Exchange (TSE) from 2005 to 2009. The findings of the study suggest that firm size, profitability and asset structure can be considered explanatory variables of capital structure. The firm size, profitability and capital structure affect book value. The determinants of market value are profitability and firm size. In addition, there are some differences in the capital structure among industry types. When the dependent variable is book value, firm size and growth opportunity have a greater impact on this in the electronic industry. Meanwhile, profitability and firm size have a greater impact on capital structure in non-electronic industries. When the dependent variable is market value, larger companies can borrow more debt and create more market value in the electronic industry. The capital structure negatively affects market value in electronic firms, but does not affect market value in non-electronic ones.

Dincergok and Yalciner (2011) have analyzed the factors that affect capital structure decisions made by manufacturing firms within the developing countries. Using panel data analysis, a number of manufacturing firms in Turkey, Brazil, Argentina, and Indonesia that are quoted in each country's stock exchanges are analyzed over the 2000-2007 period. The authors have found that profitability has a negative impact on debt ratios, while tangibility has a positive impact, especially on long-term debt ratios of the manufacturing firms in the countries analyzed. As to the results of pooled

regression, interest rates and real GDP growth affect the total debt ratio negatively, whereas the stock market development and public sector debt affect it positively.

Doku, Adjasi and Kumankuma (2011) have explored the relationship between financial market development and choice of finance (debt-equity) using panel data which involves pooling of twenty-one listed firms on the Ghana Stock Exchange (GSE) over the period 1995-2005. The study finds evidence of complementarities between banking and stock market developments in financing decisions of listed firms in Ghana. The stock market development is indicated to have a positive effect on the capital structure decisions of listed firms. However, substitution effect between debt and equity mainly in favor of equity financing sets in as the financial landscape develops further.

Ibrahim and Masron (2011) have examined the determinants of capital structure of small and medium enterprises (SMEs) by utilizing the data of 15,323 companies only for the year 2007 covering the northern area of Peninsular Malaysia such as the state of Perak, Penang, Kedah and Perlis. Conducting cross-sectional data analysis, they have found that the determinants factors such as size, profitability and tangible asset are significantly related to long term debt. Size and tangible assets have a persistent and consistent negative and significant relationship with long term debt. Further, profitability is found to be significantly and positively related to long term debt. However, the study found that the liquidity has no impact on long term debt in SMEs.

Feld, Heckemeyer and Overesch (2011) have provided a quantitative review of the empirical literature on the tax impact on corporate debt financing. Synthesizing the evidence from 46 previous studies, they have found that this impact is substantial. In particular, the tax rate proxy determines the outcome of primary analyses. Measures like the simulated marginal tax rate avoid a downward bias in estimates for the debt response to tax. Moreover, debt characteristics, econometric specifications, and the set of control-variables affect tax effects. Accounting for misspecification biases by means of meta-regressions, they predict a marginal tax effect on the debt ratio of 0.3.

Mishra (2011) has analyzed the determinants of capital structure of Indian central 48 profit making manufacturing Public Sector Undertakings for the time period 2006-03

to 2010-03 in India. The results of the study suggest that the capital structure (Total Borrowing to Total Assets) of the profit making Public Sector Undertakings is affected by Asset Structure, Profitability and Tax. Growth (defined as growth in total assets) is positively related to leverage. As predicted by theory Asset Structure and Profitability are positively and negatively related to leverage respectively. In contradiction to theory tax and leverage are negatively related. Firms with less effective tax rate have gone for more debt.

Olayinka (2011) examines the determinants of capital of 66 firms listed on the Nigerian stock Exchange during the period 1999-2007 using panel data. The results show that there is a negative relationship between leverage and growth opportunities, leverage and tangibility, but positively related to liquidity as well as size. This negative coefficient shows that growing firms do not use debt financing. Negative relationship of profitability with leverage in the three models confirms the implication of pecking order hypothesis which argues that highly profitable firms prefer to finance new investment with internally available funds than through debt finance. It also shows that size and leverage are positively related.

Sayeed (2011) analyzes the determinants of capital structures of Bangladeshi listed companies using data from 46 companies listed in Dhaka Stock Exchange (DSE) for seven years (1999 – 2005). The results show that agency costs are negatively affecting the total debt ratios of Bangladeshi companies. Tax rate is having positive impact only for long term debt and non debt tax shields such as depreciations are negatively impacting on total debt ratio. Bankruptcy costs and profitability are irrelevant in determining leverage ratios, while firm size has positive impact in determining both total and long term debt ratios. Collateral value of assets positively influence only total debt ratio whereas number of years in operation does not have very significant impacts on the capital structure determination. Industry characteristic has been found to be a significant determinant of debt ratios.

Kumar, Anjum and Nayyar (2012) analyze the capital structure pattern of various companies for the period of 2007-2011 and examined the effect of changes in capital structure on its investment pattern over the period of time. Their study conclude that the capital structure decision of the pharmaceutical companies has very little effect on

its investment pattern, which defines that the company is using long term sources of funds to finance its current assets and its operational activities of its business with the object to attain the long term solvency and maximizing profitability with least cost of capital.

Pinkova and Kaminkova (2012) investigate the impact of corporate life cycle on the capital structure of companies using quantitative research method. The sample consists of fifty companies belonging to NACE division 29, manufacture of motor vehicles, trailers and semi-trailers. The data come from financial statements of the chosen companies and mostly cover a period since their start-up till year 2010. First, the method based on cash flow patterns is applied to the identification of firm's life cycle. Next, the methods of descriptive statistics and the hypothesis test about a population proportion are used. The study explores the relationship between capital structure and corporate life cycle. The empirical study is performed to support theoretical findings. The study confirmed the fact that companies do not have to go through the stages of corporate life cycle gradually, but the order of stages can vary in dependence of concrete conditions. The development of debt ratio seems to be dependent on corporate life cycle stages. The results of the study resemble in many aspects the findings of pecking order theory. The stages of birth, growth and decline are typical with higher level of debt use. The equity capital is preferred in the maturity stage. The results of hypothesis testing were ambiguous. This ambiguity might be connected with lower occurrence of some of the stages. In conclusion, it can be assumed that the relation between the life stage and capital structure exists.

Sabir and Malik (2012) analyze the effect of profitability, tangibility, size and liquidity on capital structure decisions of the listed companies in oil and gas sector of Pakistan. The study attempts to provide information that may help in taking capital structure decisions in listed companies of oil and gas sector of Pakistan, which will ultimately support in maximization of the value of firms on the one side and the minimization of cost of capital on the other side. The results indicate that profitability is the only variable that shows negative relationship against the dependent variable leverage, whereas the other three variables, liquidity, size and tangibility have positive relationship with leverage. The study concludes that capital structure decisions in listed oil and gas sector companies are mostly determined by the factors studies. The

study substantiates the findings of most of the researches conducted on capital structure, concluding that there is an optimal capital structure that is affected by a variety of internal and external factors.

Lim (2012) investigates the determinants of capital structure of financial service firms in China. Using a relative regression of accounting data for 36 A-share financial listed companies over the years 2005-2009, an empirical study on determinants of capital structure in financial industry is conducted. The results show that profitability, firm size, non-debt tax shields, earnings volatility and non-circulating shares are significant influence factors in financial sector. Moreover, firm size is positively related to the corporate leverage ratio. It has also been found that Chinese institutional characteristic affects the capital choice decision. While it confirmed that capital structure determinant of financial firms are similar to other industry, the largely state ownerships do affect capital structure choices.

Tamulyte (2012) examines capital structure and the variables influencing it in The Baltic States and Russia – countries which started their transition from a planned to a market economy at the same time. Analysis of both macroeconomic and microeconomic variables of the period 2002-2008 shows that the determinants influencing the choice of capital structure in companies is similar but some significant differences still exist. Even though joining the European Union has speeded up the development of The Baltic States economies, but it does not have any significant influence on their capital structure. Determinants of capital structure were similar in The Baltic States and Russia as well: credit market development and tangibility have the biggest influence when making financing decisions. However, the Russian capital structure has been influenced by stock market development as well. An important difference has been noticed in risk acceptance perspective: risky Russian companies were more willing to take more debt, especially long term debt. It may be due to larger size of companies in Russian sample, compared to the samples of the Baltic States, and their expectation to be “too big to fail”.

III. Concluding remarks.

Majority of past empirical evidence suggests that financing does matter that managers can theoretically determine a firm’s optimal capital structure. By introducing capital

market frictions, such as taxes, bankruptcy costs, and asymmetric information, authors are able to explain at least some factors driving capital structure decisions. Consequently, financial economists have set forth various capital structure theories such as trade-off theory (Kraus and Litzenberger 1973), pecking order theory (Myers 1984; Myers and Majluf 1984), signaling (Ross 1977), and market timing theory (Baker and Wurgler 2002) to explain the relevance of capital structure. These theories relate directly to taxes, asymmetric information, agency problems, and bankruptcy costs. Taken separately, these theories cannot explain certain important facts about capital structure. Thus despite extensive research into the area of capital structure, determining the precise financing mix that maximizes the market value of the firm remains elusive.

Regardless of the diverse empirical evidences portrayed by researchers, the study of capital structure primarily seeks to explain firms' financial tactics, as well as, financial decisions on investment activities. Hence, financing matters for most corporations and their investment behavior is dependent upon the availability of internal funds and leverage levels. In addition, explicit transaction cost that affects leverage (Strebulaev, 2007; Shivdasani & Stefanescu, 2010; Faulkender, Flannery, Hankins & Smith, 2012) warrants firms to have leverage targets (Altinkilic & Hansen, 2000; Leary & Roberts, 2005). In relation to this, a significant number of researches further reveal that firms' leverage adjustment cost are also influenced by other reasons that demand access to capital markets. Firms would raise external funds to finance promising investments through debt or equity issuances, and generating cash beyond positive investment opportunities. In contrast, leverage can be adjusted to repay debts and pay dividends. Hence, there appears to have joint effects of adjustment costs and cash flows on leverage adjustments, which can be integrated towards the adjustment timing (Faulkender, Flannery, Hankins & Smith, 2012). Changes in market conditions also affect leverage adjustments, where high market-to-book value means a decline in next year's amount of debt, without any significant equity changes (Frank & Goyal 2004).

Most capital structure studies to date are based on data from developed countries. For example, Rajan and Zingales (1995) use data from the G-7 countries, Bevan and Danbolt (2000 and 2002) utilize data from the UK, Antoniou et al. (2002) analyze

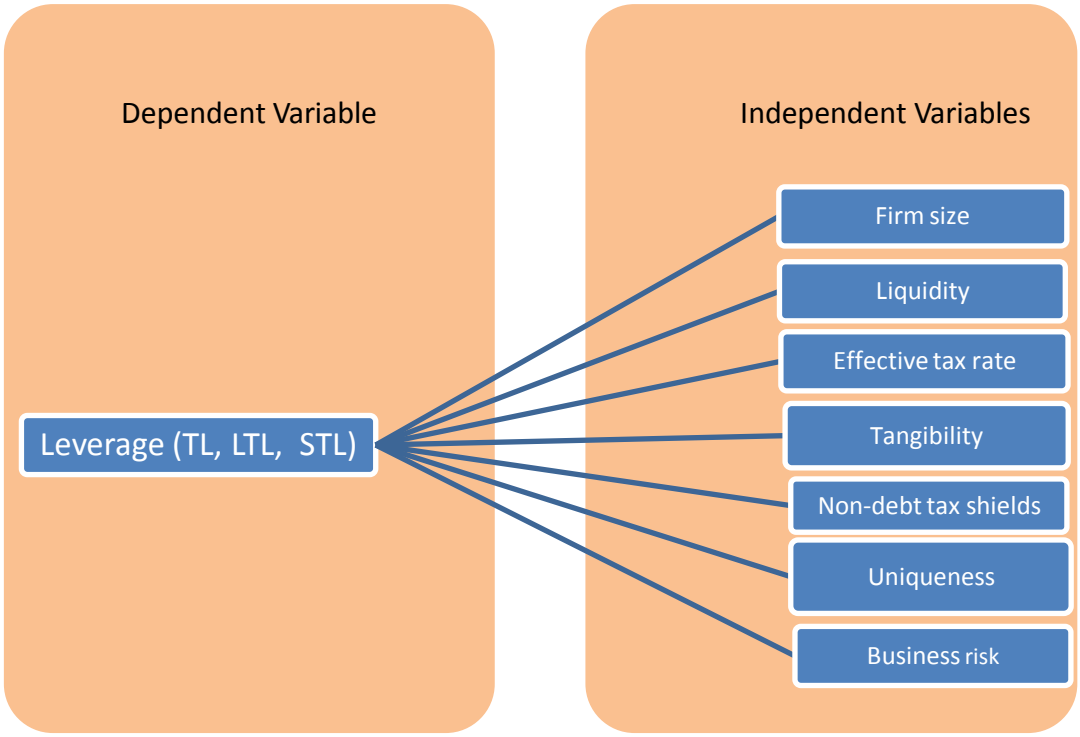
data from the UK, Germany, and France and Hall *et al*.(2004) used data from European SMEs. There are few studies that provide evidence from developing countries, for example Booth et al, (2001) analyze data from ten developing countries (Brazil, Mexico, India, South Korea, Jordan, Malaysia, Pakistan, Thailand, Turkey and Zimbabwe), Pandey (2001) uses data from Malaysia, Chen (2004) utilize data from China, Omet and Nobanee (2001) use data from Jordan and Al-Sakran (2001) analyses data from Saudi Arabia. Of the capital structure studies, some have used cross-country comparisons based on data from particular region. For example, Deesomsak *et al*. (2004) analyze data from the Asia Pacific region. According to Teker *et al*. (2009), Chen (2003) capital structuring of the firms in developed countries have been the subject of most research by scholars and very less research has been conducted in developing countries and emerging markets (Sukkari 2003). Those few research works that have been conducted on developing countries showed that firms' capital structure depends on various factors such as interest rate, tangibility, size and inflation (Lima *et al*. 2009).

Quite a large strand of theoretical and empirical research has focused on the area of capital structure since the path-breaking paper on capital structure by Miller and Modigliani published in 1958. However, most of the research work has been carried out in developed economies and very little is known about the capital structure of firms in developing economies. The conclusions from these studies were that there were some common features in the capital structures of firms in different countries but that further research was felt necessary to identify the determinants of capital structure in particular institutional settings or country like Nepal. This study attempts to reduce the gap by analyzing a capital structure question from a Nepalese business environment. In summary, literature review shows that different researchers have considered different key variables in their respective studies. However, most of the published studies have considered firm size, liquidity, tangibility, effective tax rate**,** non-debt tax shields, uniqueness, and business risk as possible determinants of the capital structure choice.

The major concern of this study is an examination of the determinants of capital structure of non-financial corporate firms in Nepal. The conceptual model has been constructed based on capital structure theories and review of past empirical works.

This study introduces new constructs and considers that capital structure may be a function of turnover, firm size, age, tangibility, growth, and liquidity. The prescribed conceptual framework has been depicted in Figure 2.1.

Figure 2.1
Conceptual framework of capital structure and its determinants



2.3 Research methodology

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically (Kotharai 2004). It defines the reason why a research study has been undertaken, how the research problem has been defined, in what way and why the hypothesis has been formulated, what data have been collected and what particular method has been adopted and also why particular technique of analyzing data has been used. Thus, every research should describe the methodology. The methodology used in the study is stated as: (I) research design, (II) selection of enterprises, (III) nature and sources of data, (IV) method of analysis and (V) hypotheses and model.

I. Research design

Research design is the plan and structure of investigation so conceived as to obtain answers to research questions. It constitutes the blueprint for the collection, measurement, and analysis of data (Cooper and Schindler 2003). After the research study has been formulated, the next logical step is to construct the research design.

This study uses the statistics to describe the variables and simply portray an accurate profile of organizations, events, or situation after collecting, classify, and summarize data to describe what exists. Thus, descriptive research design has been followed for conceptualization of the problem. As correlation analysis and regression analysis have been used to explain the relationship between dependent and independent variables for analyzing determining variables on firms' capital structure, thus the causal-comparative research approach has also been followed in the study.

II. Selections of enterprises

In this study eighteen listed non-financial enterprises have been selected as sample. Among 18 sample enterprises, 12 enterprises are manufacturing, and 6 are Non-manufacturing (ie.4 hotels and 2 trading) enterprises selected as sample for secondary data analysis. The details of the enterprise selected for the study has been shown in introduction chapter. The stratified random sampling technique was adopted in selecting the enterprises as sample. The period covered for the study is 1998-2012 but period varied depending on the availability of data.

III. Nature and sources of data

This study has utilized secondary sources for collecting data. The data are collected from Nepal Stock Exchange (financial statement of listed companies), Security Board of Nepal, Nepal Rastra Bank, and Ministry of Finance (performance report of corporation and economic survey). The data related to capital structure and financing pattern were also obtained from the financial statements of the selected companies and moreover relevant information were gathered through concerned authorities of selected companies by interacting with them individually.

IV. Method of analysis

1. Descriptive statistics

In this study, the percentage, mean, median, standard deviation, maximum and minimum results of each variable have been described in detailed by company and by fiscal year to summarize the data. This type of analysis has also explored the basic characteristics of data, variability of data and suitability data for further analysis.

2. Correlation analysis

In this part Pearson correlation coefficients for all variables are estimated to measure the relationship between variables. Bivariate Pearson correlation is also computed to point out the most influencing variables for capital structure choice as well as to detect multicollianerity between independent variables. Leverage variables used in the study are: total leverage, long-term leverage, and short-term leverage whereas determinants of capital structure (independent variables) selected are: firm size, liquidity, tangibility, effective tax rate, non-debt tax shield, uniqueness, and business risk. The priory hypothesis in this analysis is that there is a strong relationship between leverage and the determinants of capital structure in Nepalese non-financial companies.

3. Hypotheses and model

I. Specification of variables and hypotheses

Studies embarking on analyzing the factors in relation to the amount of debt in the capital structure of the companies do not seem to have reached conclusive results. Their findings are either contradictory, or statistically insignificant. For example, while the correlation of a factor can be positive in one study it can be negative in another. Furthermore, what could be applied to developed countries might not be applicable to less developed nations. Relative to the subject matter of this study, the empirical literature suggest a number of factors that may influence the financial structure of companies. As argued by Titman and Wessels (1988) and Harris and Raviv (1991), the choice of the underlying explanatory variables is fraught with difficulty. This is why different researchers have considered different key variables in their respective studies. However, most of the published studies have considered firm size, liquidity, tangibility, effective tax rate**,** non-debt tax shields, uniqueness, and business risk as possible determinants of the capital structure choice.

The selection of the variables (dependent and independent) is primarily guided by the results of the previous empirical studies and the availability of data. Three measures of leverage have been used in this study. The first measure of leverage divides total liabilities by total assets. The second measure divides long-term debt by total assets. Third measure divides short-term debt to total assets. Short-term debt is defined as the portion of the company's total debt repayable within one year. This includes bank overdraft, bank loans payable within a year and other current liabilities. Long-term debt is the company's total debt repayable beyond one year. This includes long-term bank loans and other long-term liabilities repayable beyond one year such as directors' loans, hire purchase and leasing obligations. The total debt includes short-term debt and long-term debt. Similarly, the explanatory variables selected are measures of firm size, liquidity, tangibility, effective tax rate, non-debt tax shields, uniqueness, and business risk.

A. Firm size

The size, according to which a firm is defined as a small and medium enterprise or as a large-sized enterprise, can be determined using a variety of variables (e.g. employment, sales volume, assets or qualitative categories such as independent ownership or management).In this study sales is used as an indicator of size because it is reliable, accessible and can be used readily for comparison purposes.

There are several theoretical reasons why firm size would be related to the capital structure. Smaller firms may find it relatively more costly to resolve informational asymmetries with lenders and financiers, which discourages the use of outside financing (Chung, 1993; Grinblatt and Titman, 1998) and should increase the preference of smaller firms for equity relative to debt (Rajan and Zingales, 1995). However, this problem may be mitigated with the use of short term debt (Titman & Wessels, 1988). Relative bankruptcy costs and probability of bankruptcy (larger firms are more diversified and fail less often) are an inverse function of firm size (Warner, 1977; Ang *et al.*, 1982; Pettit and Singer, 1985; Titman and Wessels, 1988). A further reason for smaller firms to have lower leverage ratios is that smaller firms are more likely to be liquidated when they are in financial distress (Ozkan, 1996). Fama (1985)

argues that the information content of small firm and large firms is not the same due to monitoring costs being relatively higher for small firms.

Larger entities are expected to have greater sources of revenue and therefore face lower risk of bankruptcy and as such, lower expected costs of bankruptcy. Large firms are subject to a greater number of debt covenants and scrutiny; therefore face smaller monitoring costs and agency costs generally. Large entities also tend to have less variation in cash flows, cheaper access to the credit market, and higher tax shields. The Trade off theory therefore postulates that larger entities will borrow more due to their lower cost of debt, making this relationship likely positive.

It has been well documented in the literature that a firm's debt level is influenced by its size (Gupta, 1969; Titman and Wessels, 1988; Ang 1991). Larger firms tend to be more diversified and less prone to bankruptcy (Rajan and Zingales, 1995). They are also expected to incur lower costs in issuing debt or equity. Thus, large firms are expected to hold more debt in their capital structures than small firms. In addition, it is argued that smaller firms tend to have less long-term debt because of shareholder-lender conflict (Titman and Wessels, 1988; Michaelas et al. 1999). While most of the empirical evidence reports a positive relationship between company size and leverage (Kester, 1986; Lasfer, 1999; Rajan and Zingales, 1995; Barclay *et al*., 1995; Booth *et al*. 2001), some studies reveal a positive relation between size and the debt maturity structure of companies (Michaelas et al. 1999). Also following the general trend in the literature (Remmers *et al.*, 1974; Ferri and Jones, 1979; Titman and Wessels, 1988; Kim and Sorensen, 1986; Van Wijst and Thurik, 1993; Chung, 1993; Chittenden *et al*., 1996).The hypothesis is formulated as: the level of (1) total leverage, (2) long-tem leverage and (3) short term leverage are positively related to firm size.

B. Liquidity

Liquidity is defined as the ratio of Current Assets to Current Liabilities. Pecking order theory predicts that entities with high liquidity will borrow less and managers may manipulate liquid assets in favour of shareholders, away from debt holders, increasing the agency costs of debt (Deesomsak et al 2004; Harris and Raviv 1991). Liquidity is the sign of short term solvency of firm. Liquidity ratio indicates ability of the firm to meet its short term obligations. In market-oriented economies managers tend to prefer internal liquidity. Indeed, when firms have close ties with their banks (bank-

oriented) and hence information asymmetry could be reduced to its minimum level, managers' need for internal liquidity tends to be less important. In other words, a negative relationship between liquidity and leverage is expected in market-oriented economies. Indeed this result is supported by the empirical findings of Ozkan (2001), Antoniou *et al.* (2002) and others. According to Ozkan (2001), firms with great liquidity tend to have lower level of leverage. Therefore, a negative relationship is expected. Consistent with past studies **t**he hypothesis is: the levels of (1) total leverage, (2) long-tem leverage, and (3) short term leverage are negatively related to liquidity.

C. Tangibility

Tangibility is defined as the ratio of tangible assets to total assets. Agency theory hypothesises that entities with a high degree of borrowing are more inclined to invest inefficiently and transfer wealth from debt holders to equity holders. In return, lenders require collateral to hedge their own lending risk if they are to continue. Therefore, as risky lending increases, the number of tangible assets should also increase to prevent any decrease in entity liquidation value should bankruptcy occur.

The ratio of fixed to total assets represents the degree of assets' tangibility of a firm. The trade-off theory predicts a positive relation between asset structure and debt levels. As the value of intangible assets disappears (almost entirely) in the cases of bankruptcies, the presence of tangible assets is expected to be important in external borrowing as it is easy to collateralize them. Tangible assets often reduce the costs of financial distress because they tend to have higher liquidation value (Titman and Wessels, 1988, Harris and Raviv 1991). This will reduce the magnitude of financial loss incurred by financiers should the company default. Hence by pledging the firms' tangible assets as collateral or arranging so that a fixed charge is directly placed to particular tangible assets of the firm implies that these tangible assets can support more debt than intangible assets. This will therefore result in firms with assets that have greater liquidation value having relatively easier excess to finance and lower costs of financing, leading to these firms having a higher level of debt or outside financing in their capital structure (Cassar and Holmes, 2003).Consistent with the agency theory, firms with tangible assets will support more debt as tangible assets reduce agency costs since debt can be secured with known tangible assets that have

alternative redeployable uses in case of default. Scott (1977) argues on the same grounds in that a firm will issue as much secured debt as possible as the agency costs of secured debt are lower than that of unsecured debt. Moreover Stulz and Johnson (1985) argue that a firm's opportunity to engage in asset substitution is reduced by secured debt. In firms with more intangible assets, the costs of controlling capital outlays are higher as monitoring is more difficult. Similarly, Johnson (1977) argues that it is more difficult for firms holding secured debt to shift to riskier projects if they have more tangible assets.

Tangibility is generally refers to ratio of the book value of depreciated fixed assets to that of total assets. The more tangible the assets of a firm are; the greater its ability to secure debt. Consequently, collateral value (fixed assets to total assets) is found to be a major determinant of the level of debt finance (Bradley *et al*., 1984; Rajan and Zingales, 1995; Kremp *et al*., 1999; Frank and Goyal, 2002). However, Chittenden *et al*. (1996) conclude that the relationship between tangibility and leverage depends on the type of debt. While a positive relationship between tangibility and long term debt is found, a negative relationship between tangibility and short term debt is reported (Brealey and Myers 1996). The lender of long-term debt might impose restrictions to the firms with relatively less tangible assets but short-term creditors might not give more importance for tangible assets in supplying short-term debt. Fixed assets structure or assets tangibility was also considered as the determinant of capital structuring in many researches by scholars like Ross (1977); Ozkan (2001) and Khrawish & Khrawesh (2007-08) wherein they concluded that fixed assets structure is directly related to financial leverage of a firm. Consistent with the theory and past major empirical evidence, the hypothesis is: the levels of (1) total leverage (2) long-term leverage (3) short-term leverage are positively related to the level of tangibility.

D. Effective tax rate

The impact of tax on capital structure is the main theme of pioneering study by Modigliani and Miller (1958). It is theoretically believed that taxes must be important to companies' capital structure. Firms with a higher effective marginal tax rate should use more debt to obtain a tax-shield gain. MacKie-Mason (1990) has asserted that debt financing at the margin varies positively with the effective marginal tax rate. Instead of effective marginal tax rate, the effective tax rate is used to measure tax effect on

leverage in this study. Effective tax rate is defined in literature as tax paid divided by profit before tax. According to the static trade-off theory the benefit of debt is the tax deductibility of the corresponding interest payments. As a result firms will choose high debt ratio if it pays high tax rate to reduce the tax load. Mira (2005), however, has found a negative relationship between tax rate and debt ratios. On the other hand, Sayeed (2011) has found significant positive coefficients of tax with long-term debt. The author asserted that debts level should be higher if the effective tax rate is higher because debts reduce tax burden for the firms. Chhapra and Asim (2012) have found negative relationship between firm's taxes and financial leverage in Pakistan textile sector. In line with static trade-off theory, the hypothesis is: the levels of (1) total leverage (2) long-term leverage and (3) short-term leverage are positively related to effective tax rate.

E. Non-debt tax shields

The tax deduction for depreciation and investment tax credits is called non-debt tax shields (NTDS). DeAngelo and Masulis (1980) argue that non-debt tax shields are substitutes for the tax benefits of debt financing and a firm with larger non-debt tax shields, ceteris paribus, is expected to use less debt. Empirical studies generally confirm their prediction. Bradley et al. (1984) employ the sum of annual depreciation charges and investment tax credits divided by the sum of annual earnings before depreciation, interest, and taxes to measure NTDS. They find leverage is positively related with NTDS. Wald (1999) uses the ratio of depreciation to total assets and Chaplinsky and Niehaus (1993) employ the ratio of depreciation expense plus investment tax credits to total assets to measure NDTS. Both studies find that leverage is negatively correlated with NDTS.

The basic point about corporate tax is that the firm will exploit the tax deductibility of debt interest payments to reduce its tax bill. Therefore, firms that have other tax shields, such as depreciation deductions, have less need to exploit the debt tax shield. Indeed, if a firm in this position issues excessive debt, it may become “tax-exhausted” in the sense of having potential tax shields which it is unable to use. Ross (1985) explains that firms face a decline in the expected value of their interest tax savings as outstanding non-debt tax shields increase. There is a further effect that arises from the risk of bankruptcy. This is a result of the increased likelihood of bankruptcy occurring

at higher debt levels. For low leverage levels, the marginal tax shield value is positive since it can be fully employed to reduce the company's overall tax liability. For higher leverage levels, the marginal advantage of debt is negative as a result of the increased probability that the potential tax shield from an extra quantity of leverage will be partially or totally lost through bankruptcy. These arguments would all suggest that there should exist a negative relationship between debt and non-debt tax shields. However, arguments also exist for a positive relationship between leverage and non-debt tax shields. Scott (1977) and Moore (1986) suggest that firms with substantial non-debt-tax shields invariably have considerable collateral assets which can be used to secure debt; and secured debt is less risky than that which is unsecured. Overall then, these arguments suggest that the expected effects of non-debt-tax-shields on the supply of debt by firms are not known a priori. Firms with lower investment related tax shields (holding before-tax earnings constant) will employ greater debt in their capital structures (DeAngelo and Masulis 1980).They argue that non-debt tax shields are substitutes for a debt related tax shield and therefore the relationship between non-debt tax shields and leverage should be negative. Kim and Sorensen (1986) declare that DEPR has a significantly negative coefficient. This is consistent with the notion that depreciation is an effective tax shield, and thus offers the tax shield benefits of leverage. A negative relationship between non-debt tax shields and leverage is supported by Chaplinsky and Niehaus (1993), Wald (1999), Wiwattanakantang (1999), and Huang and Song (2002). On the other hand, Bradley et al. (1984) report a positive relationship. In view of the discussion just cited the depreciation divided by total assets is used in order to proxy for non-debt tax shields in this study. The hypothesis is: relationship between non-debt tax shields and (1) total leverage, (2) long-tem leverage, and (3) short term leverage should be negative.

F. Uniqueness

According to Titman and Wesseles (1988), selling expenses over sales has been measured as an indicator for uniqueness. Firms that sell products with close substitutes are likely to do less research and development since their innovations can be more easily duplicated. In addition, successful research and development projects lead to new products that differ from those existing in the market. Firms with relatively unique products are expected to advertise more and, in general, spend more in promoting and selling their products. Loof (2003) summarizes the idea due to

Titman (1984), that the more unique a firm's asset is, the thinner the market for such assets. Accordingly the lower is the expected value recoverable by a lender in the event of bankruptcy. Hence, it may be expected that uniqueness be negatively related to leverage. However, in Nepalese context, this study has used the selling and advertisement expenses divided by net sales (SANS) to measure the uniqueness of the products. There are two rationales to select this proxy in the study. First, it has been significantly tested by Titman and Wesseles (1988) as a linear function of leverage in Linear Structural Relationship (LISREL). Second, Research and Development (R&D) and advertising expenditures are not separately reported.

Titman (1984) presents a model in which a firm's liquidation decision is causally linked to its bankruptcy status. As a result, the costs that firms can potentially impose on their customers, suppliers, and workers by liquidating are relevant to their capital structure decisions. Customers, workers, and suppliers of firms that produce unique or specialized products probably suffer relatively high costs in the event that they liquidate. Their workers and suppliers probably have job-specific skills and capital, and their customers may find it difficult to find alternative servicing for their relatively unique products. For these reasons, uniqueness is expected to be negatively related to debt ratios. Adopting the ideas from past empirical evidence, the study assumes the hypothesis as: uniqueness is negatively related to (1) total leverage, (2) long-tem leverage, and (3) short term leverage.

G. Business risk

Business risk of the firm is measured by its degree of operating leverage. This equals the percentage change in earnings before interest and taxes over the percentage change in sales. The negative relationship between leverage and business risk is found (Babu and Jain (1997). Both agency and bankruptcy cost theories suggest the negative relation between the capital structure and business risk. The bankruptcy cost theory contends that the less stable earnings of the enterprises, the greater is the chance of business failure and the greater will be the weight of bankruptcy costs on enterprise financing decisions. Similarly, as the probability of bankruptcy increases, the agency problems related to debt become more aggravating. Thus this theory suggests that as business risk increases, the debt level in capital structure of the enterprises should decrease (Taggart 1985).

Given agency and bankruptcy costs, there are incentives for the firm not to fully utilize the tax benefits of 100 per cent debt within the static framework model. The more likely a firm will be exposed to such costs, the greater their incentive to reduce their level of debt within the capital structure of the firm. One firm variable which impacts upon this exposure is firm operating risk, in that the more volatile firm earnings streams, the greater the chance of the firm defaulting and being exposed to such costs. Consequently, these firms with relatively higher operating risk will have incentives to have lower leverage than other more stable earnings firms. Unusually, the limited empirical evidence between risk and leverage for SMEs suggests a positive rather than negative relationship (Jordan *et al.*, 1998; Michaelas *et al.*, 1999). Studies during 1980s showed the contradictory evidence in this regard (Martin and others 1988). Sharma (1983) and Chamoli (1985) show the evidence against, and Garg (1988) and Paudel (1994) do for the relation consistent with the bankruptcy and agency cost theories. Thus, this study assumes the hypothesis as: business risk is negatively related to (1) total leverage, (2) long-tem leverage, and (3) short term leverage.

In this study the dependent variable is the capital structure which is represented by total leverage, long-term leverage and short-term leverage. The explanatory variables selected are: firm size, liquidity, tangibility, effective tax rate, non-debt tax shield, uniqueness and business risk.

II. **The model**

This part of the study examines the determinants of capital structure. The choice regarding the included explanatory variables has been made based on a review of the relevant literature. The selection of the model is mainly motivated by Titman and Wessels (1988), Rajan and Zingales (1995), Sayeed (2011). The capital structure (leverage) is regressed on firm size, liquidity, tangibility, effective tax rate, non-debt tax shields, uniqueness, and business risk. Since the purpose of this study is to examine the impacts of different covariates on (capital structure) leverage, the analysis is directed to test the following models:

$$TL_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 LIQU_{it} + \beta_3 TANG_{it} + \beta_4 TAX_{it} + \beta_5 NDTS_{it} + \beta_6 SANS_{it} + \beta_7 BRISK_{it} + \varepsilon_{it} \quad (1)$$

$$LTL_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 LIQU_{it} + \beta_3 TANG_{it} + \beta_4 TAX_{it} + \beta_5 NDTS_{it} + \beta_6 SANS_{it} + \beta_7 BRISK_{it} + \varepsilon_{it} \quad (2)$$

$$STL_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 LIQU_{it} + \beta_3 TANG_{it} + \beta_4 TAX_{it} + \beta_5 NDTS_{it} + \beta_6 SANS_{it} + \beta_7 BRISK_{it} + \varepsilon_{it} \quad (3)$$

Where:

TL = Total leverage = Total debt/ Total assets

LTL = Long-term leverage = Long-term debt / Total assets

STL = Short-term leverage = Short-term debt / Total assets

SIZE = Firm size = Natural logarithm of sales

LIQU= Liquidity = Current assets divided by current liabilities

TANG= Tangibility = Book value of fixed assets to total assets

TAX = Effective tax rate = Tax amount divided by earnings before taxes

NDTS = Non-debt tax shields = Depreciation / total assets

SANS= Uniqueness = Selling and administrative expenses / net sales

BRISK = Business risk = Percentage change in earnings before interest and taxes to percentage change in sales (degree of operating leverage).

Summary outline of the expected relationship between capital structure and its determinants has been depicted in Table 2.4.

Table 2.4
Expected relationship between capital structure and its determinants

Variables	Expected relationship	Theories
Firm size	+	Tradeoff theory: bankruptcy costs/tax. Agency theory: agency costs of debt.
Liquidity	-	Agency theory: agency cost of debt. Free cash flow theory. Pecking order theory: use of internal resources.
Tangibility	+	Agency theory: agency cost of debt, Tradeoff theory: financial distress/business risk.
Effective tax rate	+	Static trade-off theory.
Non debt tax shield	-	Tradeoff theory: tax
Uniqueness	-	Bankruptcy cost theory.
Business risk	-	Agency theory; bankruptcy costs theory.

2.4 Analysis of data

The analysis of data related to capital structure and its determinants involves in the following subsection**.** Sub-section 1 presents capital structure or leverage position, while sub-section 2 shows the descriptive statistics of the capital structure and its determinants. Sub-section 3 reports relationship among capital structure determinants and leverage. Sub-section 4 analyzes the impact of capital structure determinants on leverage. Sub-section 5 incorporates the discussion.

2.4.1 Capital structure or leverage position

The debt to total assets ratio has been used as one of the proxy for capital structure in this study. Table 2.5 reports the debt to total assets ratios of sample companies. On an average, Nepalese sample companies finance 86 percent of total assets by debt capital.

Table 2.5 shows that the minimum debt to total assets ratio 0.39 and maximum ratio for sample companies is 2.56. The average values indicate that debt to total assets ratio is largest for NBGUL (2.56), followed by FHL (1.73), thereafter GRUL (1.4), OHL (1.04) and so on. BNL (0.39) has the least debt to total assets ratio among sample companies.

Table 2.5
Debt to total assets ratios for the period of 1998 to 2012

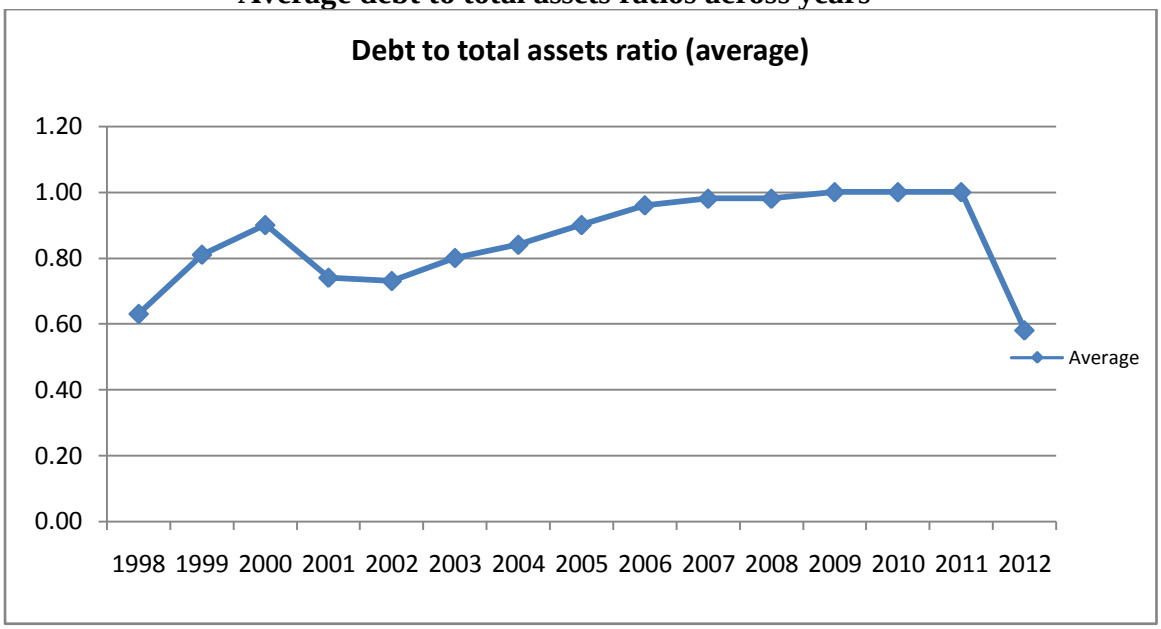
This table shows the position of debt to total assets for selected companies for the period of 1997-2008. Debt to total assets ratio has been calculated by dividing total debt by total assets. Average in column indicates the average debt to total assets ratio of selected companies over 12 years time period and average in row indicates for an individual company. S.D. indicates the standard deviations of debt to total assets ratio over different periods and companies.

Co./Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg	S.D.
BBCL	0.31	0.39	0.35	0.28	0.34	0.60	0.56	0.97	0.99	0.38	0.30	0.40	0.52	0.44	NA	0.49	0.23
BNTL	0.45	0.44	0.40	0.43	0.44	0.41	0.34	0.38	0.37	0.60	0.47	0.61	0.64	0.63	0.60	0.48	0.10
BNL	0.26	0.26	0.23	0.30	0.33	0.32	0.26	0.30	0.33	0.46	0.54	0.59	0.58	0.59	0.48	0.39	0.14
FHL	0.78	0.91	1.05	1.25	1.85	1.87	1.90	1.85	1.99	2.15	2.01	2.07	2.17	2.29	NA	1.73	0.50
GRUL	NA	NA	0.89	1.00	1.08	1.17	1.30	1.44	1.58	1.72	1.92	1.79	1.38	1.52	NA	1.40	0.32
HDL	NA	NA	NA	NA	0.56	0.62	0.69	0.76	0.79	0.79	0.81	0.83	0.80	0.71	0.59	0.72	0.10
KUL	0.95	0.88	0.81	0.77	0.53	0.56	0.30	0.26	0.24	0.31	0.58	0.82	0.73	0.80	NA	0.61	0.25
NBGUL	1.02	1.16	1.41	1.52	1.62	1.92	2.81	3.01	3.35	3.48	3.48	3.59	3.74	3.79	NA	2.56	1.06
NBBUL	0.75	0.81	0.81	0.79	0.80	0.85	0.83	0.82	0.83	0.88	0.88	0.90	0.92	0.92	NA	0.84	0.05
NLOL	0.62	0.60	0.69	0.68	0.57	0.64	0.57	0.69	0.73	0.71	0.70	0.74	0.77	0.75	NA	0.67	0.07
OHL	NA	3.04	0.88	0.76	0.84	0.93	0.98	1.04	1.06	1.06	1.04	0.99	0.94	0.89	0.85	1.09	0.57
STC	0.93	0.94	4.11	0.93	0.71	0.76	0.72	0.56	0.59	0.62	0.62	0.69	0.71	0.73	NA	0.97	0.91
SRJML	0.34	0.41	0.41	0.41	0.43	0.40	0.39	0.40	0.62	0.62	0.64	0.66	0.76	0.75	NA	0.52	0.15
SHL	0.47	0.44	0.39	0.37	0.44	0.55	0.61	0.71	0.75	0.74	0.66	0.56	0.53	0.52	0.51	0.55	0.12
SSML	0.73	0.76	0.79	0.75	0.74	0.79	0.79	0.73	0.73	0.95	1.00	1.06	1.27	1.24	NA	0.88	0.19
TRHL	0.63	0.78	0.92	1.08	0.77	0.85	0.90	0.91	0.91	0.66	0.65	0.64	0.61	0.57	NA	0.78	0.15
UNL	0.62	0.54	0.48	0.55	0.39	0.54	0.58	0.80	0.77	0.77	0.75	0.43	0.40	0.39	0.42	0.56	0.15
YAYHL	0.54	0.60	0.65	0.63	0.62	0.61	0.60	0.60	0.66	0.68	0.61	0.57	0.55	0.51	NA	0.60	0.05
Average	0.63	0.81	0.90	0.74	0.73	0.80	0.84	0.90	0.96	0.98	0.98	1.00	1.00	1.00	0.58	0.86	0.14
S.D	0.24	0.64	0.88	0.34	0.42	0.45	0.63	0.66	0.73	0.77	0.77	0.78	0.80	0.83	0.15	0.61	0.23

Source: Financial statement of sample companies

Figure 2.2 also depicts that the average minimum debt to total assets ratio is 0.58 and maximum average debt to total assets ratio is 1.00. The average values indicate that debt to total assets ratio is largest for 2009, 2010 and 2011 (1.00) followed by 2007 and 2008 (0.98), thereafter 2006 (0.96), 2000 and 2005(0.90) and so on.

Figure 2.2
Average debt to total assets ratios across years



Source: Financial statement of sample companies

2.4.2 Descriptive statistics of capital structure and its determinants

This section describes the variables used in the analysis and summarizes the results of descriptive statistics of three dependent variables and seven independence variables. This study employs the three measures of leverage shown in Table 2.6. The mean of total leverage of the sample firms is .872. It indicates that the Nepalese sample companies use 87.2 percent debt in financing their assets. The evidence shows that 25.7 percent of sample companies' assets are financed by long term debt. Further the first quartile (25%) value of long- term leverage is zero (00). It points out that one fourth of the Nepalese sample companies do not use long term debt in their capital structure.

The mean value of short term leverage is .615 which indicates that 61.5 percent of total assets of sample companies are financed by short-term debt. This result highlights the importance on short-term debt over long-term debt in Nepalese corporate financing.

Table 2.6
Descriptive statistics of dependent and independent variables (n = 251)

TL is the ratio of total debt to total assets. LTL is the ratio of long-term debt to total assets. STL is the ratio of short-term debt to total assets. SIZE is the natural logarithm of sales. LIQU is the current assets divided by current liabilities TANG is the ratio of book value of fixed assets to total assets. TAX is the ratio of tax paid divided by earning before tax. NDTS is the ratio of depreciation divided by total assets. SANS is the ratio of selling and administrative expenses divided by net sales. BRISK is the ratio of percentage change in earnings before interest and taxes to percentage change in sales (degree of operating leverage).

Variables	Scale	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25	50	75
TL	Ratio	0.872	0.656	0.230	4.110	0.540	0.710	0.910
LTL	Ratio	0.257	0.362	0.000	2.960	0.000	0.120	0.430
STL	Ratio	0.615	0.642	0.030	3.790	0.290	0.430	0.650
SIZE	Ln	18.773	3.812	0.000	22.000	19.000	20.000	20.000
LIQU	Ratio	1.208	1.530	0.043	11.203	0.501	0.840	1.332
TANG	Ratio	0.499	0.277	0.030	0.990	0.250	0.470	0.750
TAX	Ratio	0.122	0.250	-0.980	2.420	0.000	0.000	0.230
NDTS	Ratio	0.033	0.025	0.000	0.139	0.014	0.031	0.044
SANS	Ratio	0.549	2.243	0.000	31.636	0.058	0.246	0.406
BRISK	Ratio	-321.321	5105.500	-80882.120	334.651	-0.960	0.507	2.991

Source: Financial statement of sample companies

2.4.3 Capital structure and its determinants-all sample

A. Relationship between capital structure and its determinants-all sample

In this section Pearson correlation coefficients have been estimated and presented in Table 2.7 in order to measure the relationship among variables. Total leverage has significant positive correlation with SANS and significant negative correlation with SIZE, LIQU, TANG, TAX, and NDTS. These variables are significant at 1 percent level of significance with total leverage. BRISK variable does not report significant correlation with total leverage. These results suggest that these six variables may be the major determinants of capital structure.

The long term leverage has significant correlation among only three explanatory variables. It has positive significant correlation with LIQU and TANG. The negative correlation is found with TAX. These variables are significant at 1 percent level of significance with long term leverage. The rest of the four explanatory variables don't report significant relationship with long-term leverage.

The short-term leverage has significant correlation with five variables out of seven explanatory variables. SIZE, LIQU, TANG, and NDTS report negative correlation with short term leverage but SANS has positive relationship with short term leverage. All these five variables are significant at 1 percent level of significance with short term leverage. The results suggest that five variables out of seven can be considered as major determinants of capital structure.

Table 2.7
Correlation matrix of determinants of capital structure- all sample (n = 251)

TL, LTL, STL are the dependent variables. TL is the ratio of total debt to total assets. LTL is the ratio of long term debt to total assets. STL is the ratio of short term debt to total assets. Among eight independent variables, SIZE is the natural logarithm of sales. LIQU is the current assets divided by current liabilities. TANG is the book value of fixed assets to total assets. TAX is the tax paid divided by earnings before tax. NDTS is the depreciation divided by total assets. SANS is the selling and administration expense to net sales. BRISK is the percentage change in earnings before interest and taxes to percentage change in sales (ie. degree of operating leverage).

Variable	TL	LTL	STL	SIZE	LIQU	TANG	TAX	NDTS	SANS	BRISK
TL	1									
LTL	.315**	1								
STL	.845**	-.240**	1							
SIZE	-.343**	0	-.350**	1						
LIQU	-.173**	.204**	-.291**	-0.067	1					
TANG	-.169**	.318**	-.353**	-0.077	-.277**	1				
TAX	-.201**	-.173**	-0.109	.143*	0.036	-.210**	1			
NDTS	-.204**	-0.051	-.180**	.217**	-.238**	.450**	-0.082	1		
SANS	.403**	-0.074	.454**	-.203**	-0.097	-0.051	-0.065	-0.02	1	
BRISK	-0.04	-0.032	-0.022	-0.02	0.038	-0.06	0.031	-.201**	0.013	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The selected explanatory variables may have some degree of correlation to each and other. To examine the existence of multicollinearity among regressors, Pearson correlation coefficient is used. The results have been shown in the Table 2.7, where the bivariate correlation coefficients among explanatory variables are maximum .45 (i.e. not highly correlated). The maximum correlation coefficient .450 is found

between TANG and NDTS among seven explanatory variables. In general as a rule of thumb, independent variables having collinearity at 0.7 or greater would not include in regression analysis due to multicollinearity. Since maximum correlation coefficient is .450 among explanatory variables, multicollinearity problem may not be expected in prescribed regression models. Thus, all of the independent variables are expected to be free from serious problems of multicollinearity and more components for regression analysis.

B. Impact of capital structure determinants on leverage - all samples

In this section, the results of empirical analysis on the determinants of capital structure have been presented. The result of impact of capital structure determinants on leverage level has been presented in three different ways: first all sample companies, second manufacturing sample and third non-manufacturing (hotel & trading) sample.

The regression results of the all sample companies are presented in Table 2.8. This table shows the results of the three regression equations (three models) as described in methodology. The first measure of leverage is the TL (total debt divided by total assets) which represents by modal 1. The second measures of leverage is represented by LTL (long-term debt divided by total assets) and shown as model 2. The third measure of capital structure is STL (short term debt divided by total assets) which is given in the form of model 3. As far the estimated results of total debt, long-term debt and short-term debt are concerned; the F-statistics and VIF test results indicate the appropriate estimation models for all sample companies. The F-statistics is significant at 1 percent level of significance in three models. The VIF (variance-inflating factor) can be used to test multicollinearity. As a rule of thumb, if the VIF of a variable exceeds 10, which will happen if R^2 exceeds 0.90, that variable is said be highly collinear (Kleinbaum et.all. 1988). The presence of multicollinearity makes the estimation and hypothesis testing about individual coefficients in regression not possible (Gujarati, 2003). The results of VIF show that VIF for all the variables are less than 2. So, it indicates that the presence of non-harmful colinearity among the variables. Thus the models used in the analysis are expected to be free of the problem of multicollinearity.

The estimated regression results displayed in the Table 2.9 show that the SIZE, which represents the size of the firms, as measured by the natural logarithm of sales, has the negative and statistically significant coefficients at 1 percent level of significance for total leverage and short term leverage. The negatively significant coefficients report that larger Nepalese firms use less total debt as well as short-term debt in financing their assets. The results are contradictory to the priori hypothesis, tradeoff theory, and agency theory. The negative coefficients between the size of the firms and firm's capital structure as measured by total leverage and short term leverage may be justified that the larger Nepalese enterprises are profitable enough and their short-term financing requirements are met by retained earnings, and thus their total debt ratio and short-term debt ratio may be lower as compared to small size. The coefficient is positive and statistically significant at 5 percent level of significance for long-term leverage. The coefficient of long-term leverage is as per priori expected sign indicating that larger Nepalese firms use more long-term debt. Moreover, the informational asymmetries tend to be less severe for larger firms than for smaller firms and hence, large firm find it easier to raise long-term debt finance.

The coefficient of liquidity (LIQU) is statistically significant at 1 percent level of significance in all three types of leverage. In total leverage and short-term leverage, the sign of coefficients are negative and are as per priori expected sign. It indicates that raising external capital in Nepalese companies is likely to be expensive and hence companies with high liquidity tend to avoid raising external loan capital. The result is contradictory in the case of long-term leverage. The positive and statistically significant coefficient for long-term leverage indicates that even more liquid Nepalese firms prefer to long-term debt capital.

The coefficient of TANG or tangibility is statistically significant at 1 percent level of significance in all three types of leverage. The coefficient is positive (.646) and is as per priori expected sign for long-term leverage. It indicates that Nepalese firms with more tangible assets tend to borrow more long-term debt. The negative significant coefficients are reported for total leverage (-.545), where positive sign was expected. The negative sign for total leverage is contradictory to the priori expectation. The result reveals that fixed assets over total assets would measure operating risk in an increasing scale, thus it may have a negative impact on total debt ratio, which

measures financing risk in an increasing scale too. The result is in agreement with the idea conveyed by Binks (1979) that a higher proportion of fixed assets do not mean higher capacity to collateralize debt. This type of result indicates that Nepalese firms with a higher proportion of fixed assets to total assets leads to the less total debt financing.

Table 2.8
Regression results of determinants of capital structure-all sample (n = 251)

TL, LTL, STL are the dependent variables. TL is the ratio of total debt to total assets. LTL is the ratio of long term debt to total assets. STL is the ratio of short term debt to total assets. Among eight independent variables, SIZE is the natural logarithm of sales. LIQU is the current assets divided by current liabilities. TANG is the book value of fixed assets to total assets. TAX is the tax paid divided by earnings before tax. NDTS is the depreciation divided by total assets. SANS is the selling and administration expense to net sales. BRISK is the percentage change in earnings before interest and taxes to percentage change in sales (ie. degree of operating leverage).

$$TL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (1)$$

$$LTL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (2)$$

$$STL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (3)$$

Predictors	Dependent Variable: TL			Dependent Variable: LTL			Dependent Variable: STL		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	2.238	0.000		-0.237	0.053		2.476	0.000	
SIZE	-0.045	0.000	1.174	0.012	0.036	1.174	-0.057	0.000	1.174
LIQU	-0.106	0.000	1.127	0.070	0.000	1.127	-0.175	0.000	1.127
TANG	-0.545	0.000	1.426	0.646	0.000	1.426	-1.191	0.000	1.426
TAX	-0.504	0.000	1.069	-0.170	0.042	1.069	-0.335	0.003	1.069
NDTS	-3.316	0.040	1.439	-3.635	0.000	1.439	0.311	0.808	1.439
SANS	0.088	0.000	1.075	-0.001	0.911	1.075	0.089	0.000	1.075
BRISK	0.000	0.165	1.045	0.000	0.305	1.045	0.000	0.338	1.045
	R^2 = 0.360; Adj.R^2 = 0.342 F-value =19.535; F(sig) = 0.000			R^2 = 0.253; Adj.R^2 = 0.232 F-value =11.774; F(sig) = 0.000			R^2 = 0.576; Adj.R^2 = 0.564 F-value = 47.138; F(sig) = 0.000		

**. Significant at the 0.01 level (2-tailed).

*. Significant at the 0.05 level (2-tailed).

In the case short-term leverage negative sign of the coefficient is as expected. The result depicts that Nepalese firm with more tangible assets use less amount of short term debt. The results of long-term leverage and short-term leverage are consistent with the view that there is a positive relationship between tangibility and long term debt is found, a negative relationship between tangibility and short term debt is reported (Brealey and Myers 1996).

Impact of tax effects on capital structure is also measured and results have been tabulated. The priori hypothesis is that debts level should be higher if the effective tax rate (TAX) is higher because debts reduce tax burden for the firms. Contradicting the theory and priori hypothesis, the tax and all three measures of leverage are negatively related and the relationship is statistically significant. For TL and STL it is significant at 1 percent level of significance where as it is significant at 5 percent level of significance for LTL. Thus, tax rate is found to be a significant determinant of capital structure in Nepalese companies. The result is similar to that found in Booth *et al*. (2001). This finding is in agreement with the idea conveyed by Mira (2005) that a negative relationship between tax rate and debt ratios. Chhapra and Asim (2012) have also found negative relationship between firm's taxes and financial leverage in Pakistan textile sector. This suggests that the managers of Nepalese firms don't have incentive to take the advantage of tax shield while deciding capital structure.

The non-debt tax shield (NDTS) is concerned with the tax deduction for depreciation. Thus, firms with large NDTS are expected to less finance with debt in their capital structure. As shown in the Table 2.8 the coefficient of non-debt tax shields (NDTS) is negative for total leverage (-3.316) and long-term leverage (-3.635) which is as per priori expectation but positive sign is reported for short-term leverage (0.311) which is as opposed to expected sign. The coefficient is significant for total leverage and long term leverage whereas it insignificant for short-term leverage. The result indicates that an increase in NDTS can affect leverage negatively. Specifically, the shows that increase in non-debt tax shield will reduce the use of total and long term debt in Nepalese companies. This result is similar to that of the Tychon (1997) for the Belgian case.

The coefficient of SANS or uniqueness is significant for total leverage and short-term leverage at 1 percent level of significance. The positive signs (.088 & .089) are reported to total leverage and short term leverage and signs of the coefficient are contradictory to priori expectation. It implies that firms with innovative products should borrow more. Firms with relatively unique products are expected to advertise more and, in general, spend more in promoting and selling their products. The results further show that those Nepalese firms spend more in selling, advertising and

promotion, and research and development expenditure borrow more. The evidence does not support in the case of long-term debt.

Business risk is measured by its degree of operating leverage. The coefficient of BRISK is negative in all three types of leverage which is as per priori hypothesis but none of the coefficients are significant. The results indicate that the business risk as measured by degree of operating leverage does not affect the capital structure choice in Nepalese companies.

2.4.4 Capital structure and its determinants - manufacturing sample

A. Relationship between capital structure and its determinants-manufacturing sample

Pearson correlation coefficients of variables related to manufacturing samples have been estimated and presented in Table 2.9 to measure the relationship among variables. Total leverage (TL) has significant positive correlation with SANS and significant negative correlation with SIZE, LIQU, TAX, and NDTS. TANG and BRISK variables do not report significant correlation with total leverage. The results suggest that these five variables may be the major determinants of capital structure.

The long term leverage has significant correlation among only three explanatory variables. It has positively significant correlation with LIQU and TANG at 1 percent level of significance. The negative correlation is found with TAX at 5 percent level of significance with long term leverage. Only three of seven variables seem to the major determinants of long-term leverage (capital structure).

The short-term leverage has significant correlation with five variables out of seven explanatory variables. SIZE, LIQU, TANG, and NDTS report negative correlation with short term leverage but SANS has positive relationship with short term leverage. The results suggest that five variables out of seven can be considered as major determinants of short-term leverage (capital structure).

Table 2.9

Correlation matrix of determinants of capital structure-manufacturing sample (n=166)

TL, LTL, STL are the dependent variables. TL is the ratio of total debt to total assets. LTL is the ratio of long term debt to total assets. STL is the ratio of short term debt to total assets. Among eight independent variables, SIZE is the natural logarithm of sales.. LIQU is the current assets divided by current liabilities. TANG is the book value of fixed assets to total assets. TAX is the tax paid divided by earnings before tax. NDTS is the depreciation divided by total assets. SANS is the selling and administration expense to net sales. BRISK is the percentage change in earnings before interest and taxes to percentage change in sales (ie. degree of operating leverage).

Variable	TL	LTL	STL	*SIZE*	LIQU	*TANG*	*TAX*	*NDTS*	*SANS*	*BRISK*
TL	1									
LTL	0.088	1								
STL	.934**	-.274**	1							
SIZE	-.565**	0.099	-.580**	1						
LIQU	-.245**	.344**	-.360**	0.081	1					
TANG	-0.128	.423**	-.275**	0.073	-.204**	1				
TAX	-.187*	-.172*	-0.119	0.126	0.042	-.214**	1			
NDTS	-.155*	0.122	-.194*	.177*	-.169*	.500**	-0.066	1		
SANS	.454**	-0.106	.476**	-.327**	-0.097	-0.081	-0.056	-0.063	1	
BRISK	-0.038	-0.072	-0.01	-0.027	0.05	-0.112	0.032	-.250**	0.015	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

B. Impact of capital structure determinants on leverage-manufacturing samples

The regression coefficients of the determinants of manufacturing sample companies are presented in Table 2.10. The three models selected for the study seem appropriate because F-coefficients are significant at 1% level of significance -2 tailed. The collinearity problem is not serious among explanatory variable because VIF is less than 2 in three models used in the analysis.

The estimated regression model shows that the SIZE variable (natural logarithm of sales) has statistically significant negative signs with TL and STL which is contradictory to priori expected sign. But the positive sign is reported for LTL with insignificant coefficient. The result indicates that larger size firms use less debt in their capital structure then smaller size companies in Nepal. This finding is similar to that of the all sample companies' results.

Table 2.10

Regression results of determinants of capital structure-manufacturing sample (n = 166)

TL, LTL, STL are the dependent variables. TL is the ratio of total debt to total assets. LTL is the ratio of long term debt to total assets. STL is the ratio of short term debt to total assets. Among eight independent variables, SIZE is the natural logarithm of sales. LIQU is the current assets divided by current liabilities. TANG is the book value of fixed assets to total assets. TAX is the tax paid divided by earnings before tax. NDTS is the depreciation divided by total assets. SANS is the selling and administration expense to net sales. BRISK is the percentage change in earnings before interest and taxes to percentage change in sales (ie. degree of operating leverage).

$$TL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (1)$$

$$LTL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (2)$$

$$STL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (3)$$

Predictors	Dependent Variable: TL			Dependent Variable: LTL			Dependent Variable: STL		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	3.059	0.000		-0.173	0.120		3.231	0.000	
SIZE	-0.095	0.000	1.178	0.004	0.499	1.178	-0.099	0.000	1.178
LIQU	-0.093	0.001	1.072	0.072	0.000	1.072	-0.164	0.000	1.072
TANG	-0.362	0.079	1.432	0.584	0.000	1.432	-0.944	0.000	1.432
TAX	-0.365	0.023	1.073	-0.086	0.177	1.073	-0.281	0.050	1.073
NDTS	-1.804	0.364	1.456	-1.029	0.195	1.456	-0.791	0.655	1.456
SANS	0.072	0.000	1.134	-0.002	0.807	1.134	0.073	0.000	1.134
BRISK	0.000	0.258	1.068	0.000	0.399	1.068	0.000	0.382	1.068
	R^2 = 0.468; Adj.R^2 = 0.445 F-value = 19.873; F(sig) = 0.000			R^2 = 0.389; Adj.R^2 = 0.362 F-value = 14.347; F(sig) = 0.000			R^2 = 0.607; Adj.R^2 = 0.589 F-value =34.840; F(sig) = 0.000		

**. Significant at the 0.01 level (2-tailed)

*. Significant at the 0.05 level (2-tailed)

Liquidity (LIQU) is another important variable. The coefficient is statistically significant in all three types of leverage. The sign is negative for total leverage and short-term leverage which is as expected. The sign of the coefficient is positive in the case of long-term leverage. The result indicates that more liquid firms use less total debt and short -term debt in their capital structure then less liquid manufacturing companies in Nepal. As contradictory to priori expectation more liquid firms use more long term debt. This finding stands similar to that of the all sample companies' results. The coefficient of tangibility (TANG) is statistically significant at 1 percent level of significance for long-term leverage and short-term leverage. These coefficients are as per priori expectation but coefficient for total leverage is negative and insignificant. The result points out that the manufacturing companies with more

tangible assets borrow less short-term debt but Nepalese manufacturing companies with more tangible assets borrow more long-term debt.

Impact of tax effects on capital structure has been measured and results have been shown in Table 2.10. The priori hypothesis is that debts level should be higher if the effective tax rate (TAX) is higher because debts reduce tax burden for the firms. Contradicting to the theory and priori hypothesis, the tax rate and all three measures of leverage are negatively related and but the relationship is statistically significant for total leverage and short-term leverage. Tax rate is found insignificant for long-term leverage. The inverse relationship between effective tax rate and capital structure is contradictory to priory hypothesis and theory. This surprising result for manufacturing sample may due to the fact that most of the manufacturing companies are reporting loss with negative earnings before tax. The result indicates that increase in effective tax rate likely to reduce the use of debt capital in Nepalese manufacturing companies.

The coefficient of SANS or uniqueness is positive for total leverage and short-term leverage and these coefficients are significant at 1% level of significance. The sign is contradictory to the priori expectation. The negative but insignificant relationship is found for long-term leverage (sign is as expected). Uniqueness is considered as significant variable in determining use of total leverage and short-term leverage, this variable does not significantly affect the use of long-term debt capital in Nepalese manufacturing companies.

The coefficients of non-debt tax shields (NDTS) and business risk (BRISK) found insignificant for all three form of leverage. The results indicate that non-debt tax shield (depreciation divided total assets and business risk as measured by degree of operating leverage do not affect the capital structure choice in Nepalese companies.

2.4.5 Capital structure and its determinants - nonmanufacturing sample

A. Relationship between capital structure and its determinants-nonmanufacturing samples

Pearson correlation coefficients among variables have been estimated and the results are presented in Table 2.11 to measure the relationship among variables. Total leverage has significant negative correlation with TAX and NDTS. But SIZE, LIQU,

TANG, SANS and BRISK variable do not report significant correlation with total leverage. The results indicate that these two variables may be the major determinants of capital structure.

There are only two explanatory variables that are significantly correlated with long-term leverage. TAX and NDTS are the variables which are significantly negatively correlated with long-term leverage. These variables are significant at 1 percent level of significance with long term leverage. The rest of the five explanatory variables don't report significant relationship with long-term leverage.

Table 2.11
Correlation matrix of determinants of capital structure-nonmanufacturing sample (n=85)

TL, LTL, STL are the dependent variables. TL is the ratio of total debt to total assets. LTL is the ratio of long term debt to total assets. STL is the ratio of short term debt to total assets. Among eight independent variables, SIZE is the natural logarithm of sales; LIQU is the current assets divided by current liabilities. TANG is the book value of fixed assets to total assets. TAX is the tax paid divided by earnings before tax. NDTS is the depreciation divided by total assets. SANS is the selling and administration expense to net sales. BRISK is the percentage change in earnings before interest and taxes to percentage change in sales (ie. degree of operating leverage).

Variables	TL	LTL	STL	SIZE	LIQU	TANG	TAX	NDTS	SANS	BRISK
TL	1									
LTL	.914**	1								
STL	.299**	-0.113	1							
SIZE	-0.023	-0.056	0.075	1						
LIQU	-0.003	0.146	-.346**	-.336**	1					
TANG	-0.111	0.065	-.429**	-.243*	-.378**	1				
TAX	-.220*	-.282**	0.126	0.205	0.058	-.429**	1			
NDTS	-.327**	-.299**	-0.1	.292**	-.401**	.410**	-0.151	1		
SANS	-0.063	-0.057	-0.025	.265*	-.404**	.421**	-.352**	.708**	1	
BRISK	-0.022	-0.098	0.174	-0.017	0.026	-0.111	0.16	0.024	-0.092	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The short-term leverage is significantly correlated with only two variables out of seven explanatory variables. LIQU and TANG are variables that are significantly negatively correlated with short term leverage. These two variables are significant at 1

percent level of significance. The results suggest that two variables out of seven can also be considered as major determinants of short-term leverage (capital structure).

Variables selected for the model may have some degree of correlation to each and other. To examine the existence of multicollinearity among regressors, Pearson correlation coefficient has been calculated. The maximum bivariate correlation coefficients .708 is found between NDTS and SANS among seven explanatory variables. Another suggested rule of thumb is that if the pair-wise or zero-order correlation coefficient between two regressors is high, say, in excess of 0.80, then multicollinearity is a serious problem (Gujarati 2004). Since maximum pair-wise correlation coefficient between regressors is less than 0.80, there may not be the serious multicollinearity problem. Hence, the selected explanatory variables are considered appropriate for regression model.

B. Impact of capital structure determinants on leverage–non-manufacturing samples

Level of debt capital used by the non-manufacturing companies may be different from that of manufacturing companies. Thus, capital structure determinants for non-manufacturing companies have been analyzed separately. Table 2.12 presents the regression coefficients of the non-manufacturing sample companies using three specified models. The estimated models are significant at the 0.05 level or better as evidenced by an overall F statistic. The F-statistics prove the validity of the estimated models. The collinearity problem is not serious among explanatory variable because VIF is < 2.5 in all three models.

The size (SIZE) of the firms (as proxied by the natural logarithm of sales) is found negative and statistically significant coefficients for short-term leverage. The sign of the coefficient is contradictory to priori hypothesis but statistically insignificant coefficients are found for total leverage and long-term leverage. The result indicates that use of short-term debt is affected by the company size in non-manufacturing Nepalese companies. The negative coefficient of size revels that large size non manufacturing company borrow less amount of short-term debt.

Table 2.12

Regression results of determinants of capital structure-non-manufacturing sample (n = 85)

TL, LTL, STL are the dependent variables. TL is the ratio of total debt to total assets. LTL is the ratio of long term debt to total assets. STL is the ratio of short term debt to total assets. Among eight independent variables, SIZE is the natural logarithm of sales. LIQU is the current assets divided by current liabilities. TANG is the book value of fixed assets to total assets. TAX is the tax paid divided by earnings before tax. NDTS is the depreciation divided by total assets. SANS is the selling and administration expense to net sales. BRISK is the percentage change in earnings before interest and taxes to percentage change in sales (ie. degree of operating leverage).

$$TL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (1)$$

$$LTL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (2)$$

$$STL_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LIQU_{i,t} + \beta_3 TANG_{i,t} + \beta_4 TAX_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 SANS_{i,t} + \beta_7 BRISK_{i,t} + e_{i,t} \quad (3)$$

Predictors	Dependent Variable: TL			Dependent Variable: LTL			Dependent Variable: STL		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	1.238	0.001		-0.013	0.971		1.253	0.000	
SIZE	0.006	0.668	1.657	0.023	0.073	1.657	-0.017	0.000	1.657
LIQU	-0.061	0.204	1.554	0.062	0.178	1.554	-0.123	0.000	1.554
TANG	-0.282	0.298	2.013	0.416	0.110	2.013	-0.701	0.000	2.013
TAX	-0.742	0.012	1.427	-0.643	0.022	1.427	-0.099	0.232	1.427
NDTS	-10.619	0.001	2.319	-10.109	0.001	2.319	-0.489	0.572	2.319
SANS	0.289	0.222	2.481	0.186	0.410	2.481	0.102	0.132	2.481
BRISK	0.001	0.656	1.053	0.000	0.966	1.053	0.001	0.095	1.053
	R^2 = 0.243; Adj.R^2 = 0.174 F-value = 3.532; F(sig) = 0.002			R^2 = 0.253; Adj.R^2 = 0.186 F-value = 3.733 ; F(sig) = 0.002			R^2 = 0.633; Adj.R^2 = 0.600 F-value =18.983; F(sig) = 0.000		

**. Significant at the 0.01 level (2-tailed)

*. Significant at the 0.05 level (2-tailed).

The coefficient of liquidity (LIQU) is negative and statistically significant for total leverage and short-term leverage where as it is positively related with long-term leverage. The coefficient of tangibility (TANG) is found negative and statistically significant for short-term leverage (the coefficients as expected). The coefficient is significant at 1 percent level of significance. The result indicates that Nepalese non-manufacturing companies with more tangible assets use less amount of short-term debt in their capital structure.

Theoretical hypothesis asserts that debts level should be higher if the effective tax rate (TAX) is higher because debts reduce tax burden for the firms. Contradicting to the priori hypothesis, the tax rate and all three measures of leverage are negatively related but the relationship is statistically significant for total leverage and long-term

leverage. This finding is similar to that of Mira (2005) where the author also found a negative relationship between tax rate and debt ratios. Thus, tax rate can be considered to be a significant determinant of capital structure in Nepalese non-manufacturing companies.

Non-debt tax shield, NDTS should have inverse relationship with leverages as stipulated in priori hypothesis because of its substitutability of debts in reducing tax burdens. The coefficient of non-debt tax shields (NDTS) is negative for all leverage (a negative sign was expected). Unlike in manufacturing sample case the coefficients are statistically significant for total leverage and long-term leverage. The results indicate that non-debt tax shield (depreciation divided total assets) will have significant effect on the use of debt capital in Nepalese non-manufacturing (trading, and hotel) companies. The significant negative coefficients point out those Nepalese non-manufacturing companies with higher annual depreciation charges in their income statements use lower amount of debt in their capital structure. NDTS was found an insignificant determinant of long term debt by Akhtar (2005) but significant and negative by Mira (2005). Thus, the finding of this study is similar to that of Mira (2005).

The SANS or uniqueness and BRISK or business risk don't have direct impact on all proportions of debt, because it is statistically insignificant for all types of leverage in non-manufacturing sample.

2.5. Discussion

The findings of this study and the results of some past empirical studies are compared and discussed. The R squares and adjusted R squares continue to look reasonable in estimated regression models. The F statistics confirm the validity of the estimated models. On the basis of the findings this far, it can be concluded that the proxies of the determinants of capital structure chosen have good explanatory power of the behaviour of leverage ratios in the Nepalese companies. The summarize view of the comparison of the test results with the expectations of theories (priori expectation) are portrayed in Table 2.13 and Table 2.14. The results of the estimated models are discussed as follows:

Table 2.13
Test results of determinants of capital structure with priori the expectations

Variables	Expected Relationship	Test Results for Nepalese Firms		
		Model-1 TL	Model-2 LTL	Model-3 STL
Size (SIZE)	+	-	+	-
Liquidity (LIQU)	-	-	+	-
Tangibility (TANG)	+	-	+	-
Effective tax rate (TAX)	+	-	-	-
Non-debt tax shields (NDTS)	-	-	-	NS
Uniqueness (SANS)	-	+	NS	+
Business risk (BRISK)	-	NS	NS	NS

+ indicates positive
- indicates negative
NS= Not Significant

Size: which represents the size of the firms, as measured by the natural logarithm of sales, has the negative and statistically significant coefficients for total leverage and short term leverage, whereas positive and statistically significant coefficient is found for long-term leverage. The coefficient of SIZE with long-term leverage is as per priori expected sign indicating that larger Nepalese firms use more long-term debt than smaller size. Moreover, the informational asymmetries tend to be less severe for larger firms than for smaller firms and hence, large firm find it easier to raise long-term debt finance. SIZE variable shows the mixed result when it is compared with manufacturing and non-manufacturing samples. The statistically significant negative coefficients are found for total leverage and short term leverage in manufacturing samples whereas it is significant only for short-term leverage in non-manufacturing sample. These regression results contradict to the preset expectations as the coefficient of size is negative. The negatively significant coefficients of firm size with total leverage and short-term leverage indicate that larger size Nepalese firms borrow less total debt as well as short-term debt. This result is inconsistent with the findings of Rajan and Zingale (1995), Akhtar (2005) and Mira (2005). This findings is also contradicts to the findings of Friend and Lang (1988); Frank and Goyal (2004); Bevan and Danbolt (2000); Gaud, *et al.* (2003); Wiwattanakantang (1999); Huang and Song (2002); Bauer (2004). But it is consistent with Mazur (2007) who has reported a significantly negative coefficient of size with debt. This indicates that larger firms in Nepal tend to have lower leverage ratios and large firms borrow less than smaller firms.

Liquidity: the coefficient of liquidity is positive as well as negative in different models of this study. The coefficient of liquidity (LIQU) is statistically significant in all three models. The coefficients of LIQU are negative for total leverage and short-term leverage. It indicates that raising external capital in Nepalese companies is likely to be expensive and hence companies with high liquidity tend to avoid raising external loan capital. The result is contradictory in the case of long-term leverage. The positive and statistically significant coefficient of LIQU for long-term leverage indicates that even more liquid Nepalese firms prefer to rise of more long-term debt capital.

Tangibility: The coefficient of tangibility is positive as well as negative in different models. Tangibility variable is significantly positively related to the long-term leverage in all sample, and manufacturing sample, which is consistent with priori hypothesis. This may the case that the more tangible the assets of a firm are; the greater its ability to secure long term debt. Consequently, collateral value or tangibility (fixed assets to total assets) is found to be a major determinant of the level of long-term debt finance in Nepalese sample companies. This finding stood similar to the findings of Bradley *et al*. (1984), Rajan and Zingales (1995), Kremp *et al.* (1999) and Frank and Goyal (2002).

Where tangibility is significantly negatively related to short-term leverage in the all three sample (i.e, all sample, manufacturing sample and non-manufacturing sample).The result is as per priori expectation. In general, this negative association between leverage and tangibility can be explained by the fact that those firms that maintain a large proportion of fixed assets in their total assets tend to use less debt than those which do not. This can be due to the fact that a firm with an increasing level of tangible assets may have already found a stable source of income, which provides it with more internally generated funds and avoid using external financing. Another explanation for this relationship could be the view that firms with higher operating leverage (high fixed assets) would employ lower financial leverage. Overall the results are consistent with Cornelli *et al.* (1996), Hussain and Nivorozhkin (1997), Booth *et al.* (2001), Nivorozhkin (2002) who also suggest a negative relation between tangibility and debt ratio.

The findings of this study based on Nepalese evidence coincide with the findings of Chittenden *et al*. (1996) conclude that the relationship between tangibility and leverage depends on the type of debt. Moreover findings of this study is more similar to the findings of Brealey and Myers (1996) who have found a positive relationship between tangibility and long term debt and a negative relationship between tangibility and short term debt.

Tax: Contradicting the theory and priori hypothesis, the tax and all three measures of leverage are negatively related and the relationship is statistically significant in all samples. While priori hypothesis has been that debts level should be higher if the effective tax rate (TAX) is higher because debts reduce tax burden for the firms. The coefficient of tax is also found negative in manufacturing as well non-manufacturing sample for all three measures of leverage. Where tax is found significant for total leverage and short-term leverage in manufacturing sample but unlike manufacturing sample it is found significant for total leverage and long-term leverage in non-manufacturing sample. As a whole, tax rate is found to be a significant determinant of capital structure in Nepalese companies. The result is similar to that found in Booth *et al.* (2001). This finding is in agreement with the idea advanced by Mira (2005) and Chhapra and Asim (2012) who have found a negative relationship between tax rate and debt ratios.

Non-debt tax shields: Depreciation divided by total assets has been used in order to proxy for non-debt tax shields. The coefficient of non debt shield is negative (as per priory expectation) in all sample, manufacturing sample and non-manufacturing sample for all three measures of leverage except for short-term leverage in all sample companies. The negative and statistically significant coefficient of NDTS is found for total leverage and long-term leverage in all sample and non-manufacturing sample companies. This finding is consistent to the findings of Kester (1986); Chaplinsky and Niehaus (1993), Wald (1999), Wiwattanakantang (1999), and Huang and Song (2002). This finding, however, contradicts Bradley *et al.* (1984) who report a positive relationship. As a whole, negative coefficient of NDTS indicates that firm with larger amount of annual depression charges relatively borrow less amount of debt capital. Thus, non-debt tax shield can be considered as one of major determinants of capital structure in Nepalese listed non- financial companies.

Uniqueness: The coefficient of uniqueness is positively significantly related to total leverage and short-term leverage (as contrary to priory hypothesis) in all samples and manufacturing sample, however the negative but insignificant coefficient is found for long term leverage. It is also found insignificant in non-manufacturing sample for all three measures of leverage. As a whole the positive coefficient of SANS indicates that firm with relatively higher amount of annual selling and advertisement expenses prefer to use more debt capital. Thus, uniqueness (SANS) can also be considered as the determinants of capital structure in Nepalese firm.

Business risk: The coefficient of business risk is positive but statistically insignificant in all sample, manufacturing sample and non-manufacturing sample for all three measures of leverage. The insignificant coefficient of business risk indicates that though business risk and financial leverage move in same direction, business risk doesn't significantly affect capital structure of non-financial listed firms in Nepal.

Table 2.14
Comparison of the test results in manufacturing and non-manufacturing sample

Variables	Expected Relationship	Model-1 TL		Model-2 LTL		Model-3 STL	
		MCo.	NMCo.	MCo.	NMCo.	MCo.	NMCo.
Size (SIZE)	+	-	NS	NS	NS	-	-
Liquidity (LIQU)	-	-	NS	+	NS	-	-
Tangibility (TANG)	+	NS	NS	+	NS	-	-
Effective tax rate (TAX)	+	-	-	NS	-	-	NS
Non-debt tax shields (NDTS)	-	NS	-	NS	-	NS	NS
Uniqueness (SANS)	-	+	NS	NS	NS	+	NS
Business risk (BRISK)	-	NS	NS	NS	NS	NS	NS

NS= Not Significant

MCo . = Manufacturing Company

NMCo .= Non-manufacturing Company

In nutshell, this study has analyzed the determinants of the capital structure by taking the sample of 18 listed non-financial companies in Nepal using pooled regression models. Furthermore, this study has also analyzed the problem using the pooled data separately for manufacturing and non-manufacturing sample companies. Based on the empirical results, it can be asserted that the determinants of capital structure are firm specific. With regard to the firm specific characteristics of determinants of capital structure using three models are broadly similar.

The coefficients of non-debt tax shields (NDTS) and business risk (BRISK) found insignificant for all three form of leverage. The results indicate that non-debt tax shield (depreciation divided total assets and business risk as measured by degree of operating leverage do not affect the capital structure choice in Nepalese companies.

The empirical results indicate that the financing decisions of these companies can be explained by the determinants suggested by much of extant the empirical literature. It is observed that the coefficient values of the size variable negatively affect total leverage and short term leverage, whereas positively affect long-term leverage. Likewise, liquidity is negatively related to total leverage and short-term leverage but positively affect long-term leverage. Tangibility variable is positively related to the long-term leverage but negatively related to short-term leverage. Tax and all three measures of leverage are negatively related. As a whole non debt shield (NDTS) is negatively related to leverage whereas uniqueness (SANS) is positively related to leverage. Business risk, though positively related to leverage, the relationship is statistically insignificant.

Finally, it can be concluded that firm's size, liquidity, tangibility, tax, non- debt tax shields, and uniqueness are the determinants of capital structure in Nepalese listed non-financial companies.

CHAPTER III

EFFECTS OF LEVERAGE ON PROFITABILITY IN NEPALESE ENTERPRISES

3.1 Introduction

The capital structure decision is crucial for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has on a firm's ability to deal with its competitive environment (Abor, 2005). An important question facing companies in need of new finance is whether to raise debt or equity. This decision can effectively and efficiently be taken when managers are first of all aware of how capital structure influences firm profitability. This is because this awareness would enable the managers to know how profitable firms make their financing decisions in particular context to remain competitive. In the corporate finance literature, it is believed that this decision differs from one economy to another depending on country level characteristics.

Capital structure is closed link with corporate performance (Tian and Zeitun, 2007). Corporate performance can also be measured by variables which involve productivity, profitability, growth or, even, customers' satisfaction. These measures are related among each other. Financial measurement is one of the tools which indicate the financial strengths, weaknesses, opportunities and threats. Those measurements are return on investment (ROI), residual income (RI), earning per share (EPS), dividend yield, price earnings ratio, growth in sales, market capitalization (Barbosa & Louri 2005). Likewise corporate performance or profitability can be measured by return on equity (ROE), return on asset (ROA), operating margin (OM) and net margin (NM).

The firm's optimal capital structure will involve the conflicting theoretical arguments. Recent findings of Titman and Wessels (1988), Harris and Raviv (1991) and Rajan and Zingales (1995) confirm the results of Myers (1984) who believe that the increase of leverage will decrease profitability. Bradly *et al.*(1984) demonstrate that the firms with less operational profits also have less leverage. Champion (1999) suggests that the use of leverage is one way to improve the performance of an organization. Panno

(2003), Mesquita and Lara (2003), using the ordinary least square, have examined the influence of the capital structure of 70 Brazillian companies regarding profitability. They have discovered that profitability presents a positive correlation with short-term debt and equity, and an inverse correlation with long-term debt. Majumbar (1997), and Majumbar and Chhibber (1999), examining Indian manufacturing firms, have found that the debt to equity ratio is negatively related to economic performance of the firms of the Indian financial context.

Few studies have used financial indices as independent variables (Hall and Weiss 1967, Gale 1972, Hurdle 1974, Oustapassidis 1998) in order to explain differences in firms' profit margins. Most of the studies have concentrated on issues such as R&D policies, advertising, and economies of scale, to explain differences in price-cost margins (Clarke1984, Connolly and Hirschey 1984, Conyon and Machin 1991, Frangouli 1999, Gisser 1991, Martin 1979, Pagoulatos *et al.* 1981). Financial factors may be considered as strategic conduct variables because they affect the cost of capital and thus the firms' performance. To measure dimensions of capital structure and uncertainty the relevant studies have used the debt-to-equity ratio, equity capital to total assets ratio, own capital to fixed assets ratio or fixed capital to total capital ratio. The relationship of financial factors and firms' profitability is not always clear-cut. This relationship has been proved either positive or negative (Hall and Weiss 1967, Gale 1972, Hurdle 1974, Oustapassidis 1998).

The alternative theory, discussed by Myers (1984) and Fama and French (2002), describes a firm's debt position as the accumulated outcome of past investment and capital decisions. In this theory, commonly called the "Pecking Order" theory, firms with positive net present value investments will finance new investments first using internal funds, and in the absence of internal funds will finance them with safe debt, then risky debt, then with equity, but only if there is no other alternative. Thus, financing investments using internally generated funds may be the cheapest source, and the firm's financial structure is the outcome of past cash flows and investment opportunities. The conflict between benefits of share holders and creditors has consequences like increase of interest rate by creditors, addition of supervision costs and decrease of investment. So, this conflict demonstrates that high leverage leads to poor performance (Jenson, 1976). Myers (2001) and Eldomiaty (2007) report that

capital structure could not be the only way to explain the financial decisions of the firms. Probably this explains the contradictory results of the studies that empirically tested the predictions of relationship between of financial leverage on performance is examined by prior studies, however leverage-performance relationship may be affected by some other factors like: competitive intensity and business strategy.

In spite of the continuing theoretical debate on capital structure, there is relatively little empirical evidence on how companies actually select between financing instruments at a given point of time in order to attain optimum profitability. Moreover, these little empirical studies have been conducted in the field of capital structure and profitability in developed capital market; virtually negligible studies have been undertaken related to the impact of capital structure on profitability in undeveloped economy like Nepal. Therefore, to fill this gap in the literature and shed light on the new evidence, the present study attempts to analyze the impact of capital structure on profitability with special reference to the selected firms in Nepal. Furthermore, this study makes an attempt to provide an empirical support to the hypothesized relationship between capital structure and profitability.

3.2 Empirical evidence on leverage and profitability

Some of the studies relating to capital structure decisions and firm's profitability are summarized in this part. The empirical evidences on effect of leverage on profitability have been organized into three parts.

I. Review of major literature before 2000

II. Review of major literature during 2000 to date

III. Concluding remarks

I. Review of major literature before 2000

The major literature on the issue of leverage and profitability before 2000 is shown in Table 3.1. Hall *et al.* (1967) assert that returns are taken to be profits after tax and the ratio of book value of equity to assets are used to measure leverage. The authors find that leverage has a negative relation with returns.

Baker (1973) calculates financial leverage by taking the ratio of equity to total assets for the leading firms in an industry over one year. He shows that, at the industry level, leverage raises industry profitability and that a higher leverage implies greater risks.

In a seminal paper, Myers (1977) suggests that firms that employ shorter-maturity debt is likely to have more growth options in their investment opportunities. Debt that matures before execution of investment options cannot lead to suboptimal investment decisions. There remains the possibility of a conflict between stockholders and bondholders that might lead to an underinvestment problem if long term debt is issued. Managers, acting on behalf of their stockholders, may reject projects with positive net present values because risky debt absorbs a portion of stockholders' benefits. Given that underinvestment deteriorates profits in the long run, such behavior implies a negative relationship between liability maturity and firm performance.

Table 3.1
Major studies on the effect of leverage on profitability before 2000

Study	Major Finding
Hall *et al*. (1967)	Returns are taken to be profits after tax and the ratio of book value of equity to assets are used to measure leverage. Leverage has a negative relation with returns.
Baker (1973)	Leverage raises industry profitability and higher leverage implies greater risks.
Myers (1977)	Negative relationship between liability maturity and firm performance.
Myers and Majluf (1984)	Firms finance their investments first using internally available funds, followed by debt, and finally through external equity. Profitable firms use less amount of debt.
Brick and Ravid (1985)	Higher-priced long term debt enables the firm to avoid more taxes: an effect that is the more attractive the higher is firm's profitability.
Bhandari (1988)	Leverage has a significant positive effect on expected common stock returns. Returns increase with leverage.
Dammon and Senbet (1988)	Positive relationship between profitability and financial leverage.
Diamond (1991)	Highest credit rankings prefer to issue short-term debt.
Pushner (1995)	A negative relationship between leverage and corporate performance.
Roden and Lewellen (1995)	Positive association between profitability and total debt.

McGahan and Porter (1997)	Industry membership has an important influence on profitability.
Demirguc-Kunt and Maksimovic (1999)	Impact of maturity structure on performance could be driven more by the characteristics of the firms in each country.
Majumdar and Chhibber (1999)	Significant negative link between leverage and corporate performance.
Michaelas *et al.* (1999)	Debt finance negatively impacts on the profitability of small firms.
Schiantarelli and Sembenelli (1999)	Positive relationship between initial debt maturity and medium term performance.
Wald (1999)	Link between profitability and debt-asset ratio is positive and significant.

Myers and Majluf (1984) predict that asymmetric information between informed managers and public market causes underinvestment. They believe that due to the presence of asymmetric information, companies prefer financing by internal sources to stock issuance and where there is not adequate internal sources, they refer to borrowing. Consequently asymmetric information is the base of choice-picking order theory of financing. The main conclusion drawn from the asymmetric information theories is that there is a hierarchy of firm preferences with respect to the financing of their investments. This hierarchy of preferences suggests that firms finance their investments first using internally available funds, followed by debt, and finally through external equity.

Brick and Ravid (1985) find that the firms employ more long-term debt when the term structure has a positive slope. Higher-priced long term debt enables the firm to avoid more taxes: an effect that is the more attractive the higher is firm's profitability.

Bhandari (1988) has provided evidence that leverage has a significant positive effect on expected common stock returns. The returns are adjusted for inflation and controlled for idiosyncratic risk through size and beta. The author has obtained inflation adjusted stock returns for all firms including financials. Further the author has used the cross-section of all firms without assuming different risk classes. The author has shown that returns increase with leverage. Dammon and Senbet (1988) have found positive relationship between profitability and financial leverage, showing evidence for the trade-off theory but against the pecking order theory.

Diamond (1991) finds that the firms with the highest credit rankings prefer to issue short-term debt because of small refinancing risks. This conjecture again implies a negative relationship as better performing firms are more likely to avoid a "crisis at maturity". However, the author also shows that low-rated firms are restricted to short term debt as lenders shy away from long-term commitments.

Pushner (1995) aims to analyze the relationship between leverage and corporate performance in concordance with the influence of equity ownership in Japan. Corporate performance is here measured by total factor productivity: a production frontier is estimated, in which performance is equal to the residual of OLS estimate. He concludes to a negative relationship between leverage and corporate performance.

Roden and Lewellen (1995) have found a significant positive association between profitability and total debt as a percentage of the total buyout-financing package in their study on leveraged buyouts.

McGahan and Porter (1997) have used 72,724 observations or an average of 5,196 business segments per year from 1981 to 1994 on their research. It has been found that the results of the research provide strong support for the idea that industry membership has an important influence on profitability. Their research represents all economic sectors other than finance and indicates that manufacturing industry accounts for a smaller of profit variance than lodging/entertainment, service, wholesale/retail trade, and transportation industry.

Demirguc-Kunt and Maksimovic (1999) point out that large and small firm behave differently when selecting their maturity structure in market and bank-based financial systems. Their conjecture is that the impact of maturity structure on performance could be driven more by the characteristics of the firms in each country than by the institutional factors.

Majumdar and Chhibber (1999) test the relationship between leverage and corporate performance on a sample of Indian companies. By adopting an accounting measure of profitability, return on net worth, to evaluate performance, they observe a significant negative link between leverage and corporate performance.

Michaelas *et al*. (1999) reveal that the minimization of the cost of capital and maximization of profitability through the use of debt finance might not hold for small firms. Small firms find it difficult to borrow from commercial banks for a variety of reasons such as risk. When they are able to borrow from banks, the costs of debt financing for small firms are usually higher than those of large enterprises due to their higher credit risk. The reliance on debt to finance investment purposes therefore negatively impacts on the profitability of small firms.

Schiantarelli and Sembenelli (1999) empirically investigate the effects of firms' debt maturity structure on profitability for Italy and the United Kingdom. They find a positive relationship between initial debt maturity and medium term performance.

Wald (1999) believes that the link between profitability and debt-asset ratio is positive and significant. Profitability is defining in the form of earnings before interest and tax.

II. Review of major literature during 2000 to date

During 2000 to date several studies on leverage and profitability have emerged and major studies are presented in Table 3.2. Claessens, Djankov and Xu (2000) have compared the growth and financing patterns of East Asian corporations for the year before crisis with corporation in other countries. The sample has been from 850 public listed firms in the four countries which were also influenced by crisis, there are Indonesia, Malaysia, the Republic of Korea, and Thailand and two comparators, Hong Kong (China) as well as Singapore. The result shows that firm-specific weaknesses which already existed before the crisis have been essential factors in the failing performance of the corporate sector.

A study done by Gleason, Mathur and Mathur (2000) on relationship between culture, capital structure and performance, using data from retailers in 14 European countries, shows that capital structures differ by the cultural classification of retailers which are strengthen to the inclusion of control variables that will influence capital structure. Furthermore, result also shows that retailer performance is not depending on the cultural influence. Where else, capital structure will influences performance.

Table 3.2
Major studies on the effect of leverage on profitability during 2000 to date

Study	Major Finding
Claessens, Djankov and Xu (2000)	Firm-specific weaknesses which already in exist before the crisis were essential factors in the failing performance of the corporate sector.
Gleason, Mathur and Mathur (2000)	Capital structures differ by the cultural classification of retailers. Capital structure will influences performance.
Bevan and Danbolt (2001)	Profitability appears to be negatively correlated with the level of gearing.
Booth et al. (2001)	Profitability has an inverse relationship with debt level and size of the firm.
Devic and Krstic (2001)	Profitability to be a significant determinant of corporate financing patterns.
Hovakimian, Opler and Titman (2001)	High profitability is associated with low leverage, it is also associated with a higher probability of issuing debt vi-a-vis issuing equity.
Berger (2002)	Increasing the leverage ratio should result in lower agency costs of outside equity and improve firm performance.
Berger and Patti (2002)	Higher leverage or a lower equity capital ratio is associated with higher profit efficiency.
Fama and French (2002)	Negative effect of profitability on leverage is consistent with the pecking order model.
Hadlock and James (2002)	Companies prefer loan (debt) financing because they anticipate a higher return.
O'Brien and Peters (2002)	An increase in the long-term debt position is linked with a decrease in profitability.
Sogorb (2002)	Fiscal advantage of debt cannot be applied in the SME context because small firms are less likely to be profitable.
Dimitrov and Jain (2003)	Increasing leverage is a negative signal for future operating performance.
Graud et al. (2003)	Lagged profitability has a positive impact on leverage.
MacKay and Phillips (2003)	Leverage acts differently to the profitability in concentrated industries, as compared to the competitive industries.
Mesquita and Lara (2003)	Rates of return and debt found a negative relationship for long-term financing but a positive relationship for short-term financing and equity.
Nissim and Penman (2003)	A negative effect of leverage on profitability. Portfolios with the lowest financial leverage perform better than portfolios with high financial leverage.
Strebulaev (2003)	Simulated cross-sectional samples leverage is inversely related to profitability.

Haas and Peeters (2004)	Profitability decreases firms' leverage targets.
Korteweg (2004)	A negative relationship between leverage and returns.
Lawrence, Diewert, and Fox (2004)	Firm's profit is affected by the change in productivity, price, and firm's size.
Pandey (2004)	A saucer-shaped relation between capital structure and profitability.
Phillips and Sipahioglu (2004)	No significant relationship between the level of debt and financial performance.
Voulgaris et al. (2004)	A negative impact of net profits/sales ratio on total debt/ total assets ratio.
Abor (2005)	Positive association between the ratio of total debt to total assets and return on equity. Profitable firms depend more on debt as their main financing option.
Cai and Zhang (2005)	Negative relation between the leverage changes and the contemporaneous stock returns.
Dimitrov and Jain (2005)	A negative relation between leverage and stock returns - current and future returns.
Ramasamy, Ong and Yeung (2005)	Firm size and the firm ownership are important determinants of financial performance in the Malaysian palm oil sector.
Daniel et al. (2006)	Advantage of the tax shield of debt is limited for small firms. Potential benefits of tax shields of interest payments remain doubtful.
Haung and Song (2006)	A negative correlation between leverage and performance.
Wahyu and Ghafar (2006)	Higher leverage or a lower equity capital ratio is associated with higher profit efficiency.
Ward and Price (2006)	Increased debt/equity ratio in a profitable business increases shareholders returns.
Baum, Schafer and Talavera (2007)	Firms that rely more heavily on short-term liabilities are likely to be more profitable.
Kyerboach-Coleman (2007)	Capital structure has a positive impact on performance of microfinance institutions.
Penman et al. (2007)	Returns are inversely related to leverage. Break down the book-to-price effect into two components, which represent the operating and financial risk, respectively.
Pratomo & Ismail (2007)	Higher leverage or a lower equity capital ratio is associated with higher profit efficiency.
Salawu (2007)	Profitability has positive impact on leverage of large firms in Nigeria.
Tang and Jang (2007)	Failed to find evidence to support the relationship between leverage ratio and volatility of earnings, firm size, profitability, or free cash flow.
Zeitun and Tian (2007)	A firm's capital structure had significantly negative impact on the

	firm's performance.
Akintoye (2008)	Performance indicators to turnover and the measures of leverage are significantly sensitive.
Ananiadis and Varsakelis (2008)	Financial leverage intensifies positive effect on returns on assets.
Dimitrov and Jain (2008)	A negative effect of leverage changes on stock returns as well as on earnings-based measures of performance.
Frank and Goyal (2008)	Highly profitable firms typically issue debt and repurchase equity, while low profit firms typically reduce debt and issue equity.
King & Santor (2008)	Capital structure and corporate performance is an important incident which causes by a shortfall in United States banking system.
Morri and Berretta (2008)	More profitable firms, those with a high degree of operating risk, and those with low growth opportunities tend to use less debt.
Razak and Aliahmed (2008)	A significant impact of government ownership on company performance after controlling for company specific characteristics such as company size, non- duality, leverage and growth.
Arbiyan and Safari (2009)	Short-term and total debts are positively related to profitability (ROE) which indicate a negative relation between long-term debts and ROE.
Bokpin and Abor (2009)	Capital structure has negative effects on return on assets and return on equity but is positively related with market-to-book value ratio.
Ebaid (2009)	Capital structure choices, generally, has a weak –to- no impact on firm performance.
Jang and Tang (2009)	A U-shaped relationship between financial leverage and profitability in an analysis of lodging companies.
Muradoglu and Sivaprasad (2009)	An inverse relationship between book leverage and risk-free, average portfolio returns.
Salehi & Biglar (2009)	Capital structure influences financial performance - belonged to measures of adjusted value, market value and book value.
Chakraborty (2010)	A negative relation between leverage and profitability.
Chandrakumarmangalam and Govindasamy (2010)	Leverage and profitability and growth are related and the leverage is having impact on the profitability of the firm.
George and Hwang (2010)	Expected returns to low leverage firms will indeed be exposed to greater systematic risk than high leverage firms.
Khalid (2010)	Relationship between leverage and return on equity is negative and significant which implies that high leverage force the managers to perform optimally due to higher interest burden and agency cost.
Moradi, Salehi and Erfanian (2010)	Financial leverage is considered as relevant information in market reaction to unexpected firm earnings.
Nimalathasan & Brabete	Debt equity ratio is positively and strongly associated to all

(2010)	profitability ratios (Gross Profit, Operating Profit & Net Profit Ratios).
Nosa and Ose (2010)	Capital structure has not sustained effective funding required for growth and development of corporations.
Obert and Olawale (2010)	Use of debt has a negative impact on the profitability of small manufacturing firms.
Onaolapo and Kajola (2010)	Firm's capital structure has a significantly negative impact on the firm's financial measures (Return on Asset, and Return on Equity).
Artikis & Nifora (2011)	Leverage risk factor contains significant information content and that it adds a considerable portion in the explanation of stock returns.
Azhagaiah and Gavoury (2011)	Capital structure has significant negative influence on Profitability.
Doan Nguyen (2011)	Operational performance has a negative effect on both of the measures of capital structure considered, namely long-term debt/total assets ratio and short-term debt/total assets ratio.
Kose (2011)	Firms with higher short-term debt or lower long-term debt are riskier firms and earn higher expected returns.
Pratheepkanth (2011)	The relationship between the capital structure and financial performance is negative association.
Rafique (2011)	Profitability of the firm and its financial leverage has an insignificant impact on the capital structure.
Saedi and Mahmoodi (2011)	Firm performances, which is measured by EPS and Tobin's Q, is significantly and positively associated with capital structure, while reported a negative relation between capital structure and ROA.
San & Heng (2011)	Relationship exists between capital structure and corporate performance in selected proxies.
Singapurwoko and Wahid (2011)	Debt, firm size, and operational decision effect positively significant, and macroeconomics effect insignificantly towards profitability.
Ahmad, Abdullah and Roslan (2012)	Only short-term debt and total debt have significant relationship with return on assets while return on equity has significant on each of debt level.
Farisi and Hendrawan (2012)	Bank's capital ratio has a negative effect on their profit efficiency.
Rehman, Fatima, and Ahmad (2012)	There is a significant and positive impact of short term debts on the profitability of the firm; however long-term debt has no impact on the profitability.
Rub (2012)	Firm's capital structure had a positive impact on the firm's performance measures.
Salawu, Asaolu and Yinusa (2012)	Long-term debts, tangibility, corporate tax rate, dividend policy, financial and stock market development were all positively related

	with firms' performance.
Velnampy & Niresh (2012)	Negative association between capital structure and profitability.

Bevan and Danbolt (2001), using the fixed effects panel estimation, find that profitability appears to be negatively correlated with the level of gearing. Booth *et al.* (2001) have developed a study attempting to relate the capital structure of several companies in countries with extremely different financial markets. They conclude that the variables that affect the choice of the capital structure of the companies are similar, in spite of the great differences presented by the financial markets. Besides, they conclude that profitability has an inverse relationship with debt level and size of the firm.

Devic and Krstic (2001), in their study of Polish firms, find profitability to be a significant determinant of corporate financing patterns when book values of equity are used in the computation of leverage. According to them, the inverse relationship between profitability and leverage supports the Pecking order theory of capital structure.

Hovakimian, Opler and Titman (2001) report in their study that even though high profitability is associated with low leverage, it is also associated with a higher probability of issuing debt vi-a-vis issuing equity, which is consistent with dynamic tradeoff models.

Berger (2002) argues that increasing the leverage ratio should result in lower agency costs of outside equity and improve firm performance, all else held constant. He suggests that under the efficiency risk hypothesis, more efficient firms choose lower equity ratio than other firms, because higher efficiency reduce the expected costs of bankruptcy and the financial distress. Higher profit efficiency may create a higher expected return for a certain capital structure, and this condition does not protect firms against future crises. Profit efficiency is strongly positively correlated with expected return and higher expected return is substituted for equity capital to manage risks.

Berger and Patti (2002) have employed a simultaneous-equations model that accounts for reverse causality from performance to capital structure on the U.S.

banking industry. The study has used a number of specification changes, including different measures of performance (standard profit efficiency, alternative profit efficiency, and return on equity), different econometric techniques (two-stage least squares and OLS), different efficiency measurement methods (distribution-free and fixed-effects), different samples (the "ownership sample" of banks with detailed ownership data and the "full sample" of banks), and the different sample periods (1990s and 1980s). They have analyzed only one dimension of capital structure, the equity capital ratio. Their findings are consistent with the agency costs hypothesis-higher leverage or a lower equity capital ratio is associated with higher profit efficiency, all else equal. The effect is economically significant as well as statistically significant. They also find that profit efficiency is responsive to the ownership structure of the firm, consistent with agency theory and their argument that profit efficiency embeds agency costs. The data suggest that large institutional holders have favorable monitoring effects that reduce agency costs, although large individual investors do not.

Fama and French (2002) agree that the negative effects of profitability on leverage is consistent with the pecking order model, but also find that there is an offsetting response of leverage to changes in earnings, implying that the profitability effects are in part due to transitory changes in the target. Hadlock and James (2002) conclude that companies prefer loan (debt) financing because they anticipate a higher return.

O'Brien and Peters (2002) argue that the firms with lower expected cash flows find it tricky to acquire higher level of debt (because bankruptcy is more likely) than compared with firms which have higher level of expected cash flows and profitability. Thus, indicating that an increase in the long-term debt position is linked with a decrease in profitability.

Sogorb (2002) has found that the fiscal advantage of debt cannot be applied in the SME context because small firms are less likely to be profitable and therefore may not be able to use debt in order to get tax shields. Moreover, the main advantage of debt, the tax shield, can be especially complex to assess in new SMEs where business income is taxed as personal income.

Dimitrov and Jain (2003) have provided an alternative hypothesis based on the firms' operating performance. They argue that if the mangers have private information that the firm's future operating performance may deteriorate, they will increase the debt level to prepare for the shortfall of future incomes. Therefore, increasing leverage is a negative signal for future operating performance.

Graud *et al.* (2003) in their study of 106 Swiss companies using both static and dynamic tests find that lagged profitability has a positive impact on leverage, which confirms the prediction of a short term pecking order behaviour towards the target ratio.

MacKay and Phillips (2003) argue that the leverage acts differently to the profitability in concentrated industries, as compared to the competitive industries. They further suggest that the profitability of a leveraged firm depends on the grouping of the firms according to the industry concentration. Mesquita and Lara (2003) have found in their study that the relationship between rates of return and debt indicates a negative relationship for long-term financing. However, they have found a positive relationship for short-term financing and equity.

Nissim and Penman (2003) have also spotted a negative effect of leverage on profitability. They have found that the portfolios with the lowest financial leverage perform better than portfolios with high financial leverage. They have also found a negative effect of total leverage on future returns. Strebulaev (2003) uses a calibrated dynamic trade-off model with adjustment costs to simulate firms' capital structure paths. He argues that the simulated cross-sectional samples leverage is inversely related to profitability.

According to Haas and Peeters (2004) in their study of central and eastern European firms, profitability and age of firms are the most robust determinants of their capital structure targets, whereas profitability decreases firms' leverage targets. Korteweg (2004) has found a negative relationship between leverage and returns. His work is also based on pure capital structure changes.

Lawrence, Diewert, and Fox (2004) have described that firm's profit is affected by the change in productivity, price, and firm's size. Their research finds that when the companies increase their size to increase their productivity, the shareholders will enjoy higher return even though the product price decreases. This means that when the companies size increase, the profit of the companies will also increase. Pandey (2004) finds a saucer-shaped relation between capital structure and profitability, due to the interplay of agency costs, costs of external financing and debt tax shield.

Using responses from 43 UK lodging firms Phillips and Sipahioglu (2004) attempted to find a relationship between capital structure and corporate performance. The results of the study reveal no significant relationship between the level of debt and financial performance. They found that lodging firms appeared to prefer external sources, because normally the level of capital return is low in this industry. Voulgaris *et al.* (2004) have found a negative impact of net profits/sales ratio on total debt/ total assets ratio. The authors argue that large firms prefer retain earnings than debt as a source of financing assets.

Abor (2005) has investigated the relationship between capital structure and profitability of listed firms on the Ghana Stock Exchange (GSE) during a five-year period. Regression analysis is used in the estimation of functions relating the return on equity (ROE) with measures of capital structure. The results reveal a significantly positive relation between the ratio of short-term debt to total assets and ROE. However, a negative relationship between the ratio of long-term debt to total assets and ROE was found. With regard to the relationship between total debt and return rates, the results show a significantly positive association between the ratio of total debt to total assets and return on equity. The research suggests that profitable firms depend more on debt as their main financing option. In the Ghanaian case, a high proportion (85 percent) of the debt is represented in short-term debt.

Cai and Zhang (2005) have documented, using a sample of U.S. public firms during 1972-2003, a significantly negative relation between the leverage changes and the contemporaneous stock returns. This relation cannot be explained by the popular asset pricing factors and remains significant after controlling for other firm characteristics. They propose and test several hypotheses to explain the observed relationship. They

find the negative relation is stronger for the firms with higher leverage level. This is consistent with a dynamic view of the pecking-order model that increase in leverage reduces firms' debt capacity and may lead to future underinvestment. In addition, the long-term debt plays a more important role in this relation than the short-term debt, and the leverage change has no impact on future stock return, both of which are inconsistent with the default risk premium hypothesis. Deviation from the target leverage ratio has no impact on contemporaneous stock returns, which is inconsistent with the trade-off theory. Further tests on leverage change and future operating performance do not support the view that increase in leverage signals bad news for future performance of the firm in their sample. Indeed, there is a strong positive relation between the current leverage change and the future ROE. Overall, their evidence favors the dynamic pecking-order theory over other capital structure theories.

Dimitrov and Jain (2005) report a negative relation between leverage and stock returns by studying changes in leverage and show that they are negatively related to current and future returns. They calculate returns as risk adjusted raw returns. They differentiate between borrowing for operations or for growth to examine the effect of leverage due to economic performance and not due to growth, mergers and acquisitions and other reasons.

Ramasamy, Ong and Yeung (2005) have found that firm size and the firm ownership are important determinants of financial performance in the Malaysian palm oil sector. The findings of the study suggest that size is negatively related to performance while privately owned plantation companies are more profitably managed. They assert that larger firms would be harder to manage and result in loss of organisational effectiveness stemming from overcoming problems in bureaucratic management structures (thereby inhibiting swift and efficient decision-making process), general managerial and technical inefficiencies. Privately-owned firms perform better than state owned-firms for reasons based around the inefficiencies that are created from the incentive and contracting problems due to public ownership.

Daniel *et al.* (2006) point out that in the case of small firms, the expected costs of bankruptcy is quite high and the expected costs of financial distress may outweigh

any potential benefits from tax shield. Also, the advantage of the tax shield of debt is limited for small firms. Many small firms have limited revenues and the variability of their operating income can be quite volatile. Therefore, potential benefits of tax shields of interest payments remain doubtful. Haung and Song (2006) have found a negative correlation between leverage and performance (earnings before interest and tax to total assets is China firms).

Wahyu and Ghafar (2006), in their investigation on Islamic Bank Performance and Capital Structure, consider the choice between debt and equity financing that has been directed to seek the optimal capital structure. A high leverage tends to have an optimal capital structure under the agency costs hypothesis and it is proven by Modigliani-Miller theorem that it has no effect on the value of the firm therefore leading to a good performance. Their findings show that the higher leverage or a lower equity capital ratio is associated with higher profit efficiency. Ward and Price (2006) indicate that an increased debt/equity ratio in a profitable business increases shareholders returns, but also increases risk.

Baum, Schafer and Talavera (2007) have adopted the methodology of the empirical finance literature to analyze a common question that liability maturity structure has an impact on firm performance. A comparison is made between two countries, the US and Germany, with different types of financial systems. They have found that German firms that rely more heavily on short-term liabilities are likely to be more profitable. The link between liability maturity structure and profitability does not appear in the results from the US sample, which reflects the importance of institutional factors.

Kyerboach-Coleman (2007) point out that capital structure has a positive impact on performance of microfinance institutions. Penman *et al.* (2007) investigate the book-to-price effect in expected stock returns and its relation to leverage. They found that returns are inversely related to leverage. They break down the book-to-price effect into two components, which represent the operating and financial risk respectively.

Pratomo & Ismail (2007) have attempted to prove the agency cost hypothesis of Islamic Banks in Malaysia, under which high leverage firm tends to reduce agency costs. They set the profit efficiency of a bank as an indicator of reducing agency cost

and the ratio equity of a bank as an indicator of leverage. Their findings are consistent with the agency hypothesis. The higher leverage or a lower equity capital ratio is associated with higher profit efficiency.

Salawu (2007) reports in his study that profitability has positive impact on leverage of large firms in Nigeria, confirming that the tax advantage of debt financing has nonetheless its relevance in Nigerian large firms. Zeitun and Tian (2007) have investigated into the effect which capital structure has had on corporate performance using a panel data sample representing of 167 Jordanian companies during 1989-2003. The study shows that a firm's capital structure has significantly negative impact on the firm's performance measures, in both the accounting and market's measures.

Tang and Jang (2007) have found that long-term debt level is positively related to fixed assets level and growth opportunities for United States lodging companies. However, they have failed to find evidence to support the relationship between leverage ratio and volatility of earnings, firm size, profitability, or free cash flow. According to the study, all variables showed significant relationship for software firms; however, the study has failed to find this relationship in lodging firms. This can be explained by the differences among that industry and the lodging industry which is a very specialized industry.

Akintoye (2008) analyzes sensitivity of performance to capital structure on selected food and Beverage Company in Nigeria. The result shows that performance indicators to turnover (Earnings before Interest and Taxes, Earnings per Share and Dividend per Share) and the measures of leverage (Degree of Operating Leverage, Degree of Financial Leverage and Dividend per Share) are significantly sensitive. There are many approaches in examining firm performance.

Ananiadis and Varsakelis (2008) have investigated into the relationship among capital structure, short run financial management and profitability. Their analysis covers 130 industrial firms listed in the Athens Stock Exchange, the stock market of Greece, for the period 1995-2000. Their findings, with respect to the impact of capital structure on returns on assets, are similar to those found in countries with financial sector similar the Greek one. The net-working capital management has a

positive impact on the returns on assets. Financial leverage intensifies this positive effect. Again, the cultural context explains this result. Short run policies bear less uncertainty than the long run ones. Therefore, managers are more willing to finance their working capital using leverage instead of debt for long run investments. Therefore, the impetus provided by the financial leverage on working capital improves the firm's profitability. Inventories management seems to play a significant role in the explanation of profitability. High inventories turnover may lead to lower sales and consequently to low profitability.

Dimitrov and Jain (2008) conclude that as the majority of previous studies have revealed profitability to be a negative determinant of leverage, higher profitability might lead to higher returns, and so returns might as well have an inverse relation to leverage. They reveal a negative effect of leverage changes on stock returns as well as on earnings-based measures of performance.

Frank and Goyal (2008) point out that the literature has misinterpreted the evidence as a result of the wide-spread use of the familiar, but theoretically inappropriate, and empirically misleading use of leverage ratios. Empirically, consistent with the static trade-off theory, highly profitable firms typically issue debt and repurchase equity, while low profit firms typically reduce debt and issue equity. They conclude that firm size matters. Large firms make more active use of debt, while small firms make more active use of equity. In the trade-off model, financing decisions depend on market conditions. Empirically, poor market conditions have a particularly strong effect on small and low profit firms.

King & Santor (2008) have examined the linkage between family ownership, firm performance and capital structure on Canadian firms. Based on Tobin's q ratios, the result shows that self-supporting family owned firms with a single share class have similar market performance compared to other firms, superior accounting performance based on ROA, and higher financial leverage based on debt-to-total assets. Comparatively, family-owned firms which use dual-class shares have valuations that are lower by 17% on average relative to broadly held firms, even though having similar return on assets and financial leverage. Capital structure and corporate performance before and during financial crisis 2007 is an important incident

caused by a shortfall in United States banking system consequently led to the collapse of huge financial institutions and downturn of stock markets worldwide. Financial crisis is likely to be strongly related with corporate poor performance.

Razak and Aliahmed (2008) have examined the impact of an alternative ownership control structure of corporate governance on firm performance among government linked companied (GLCs) and Non-GLC in Malaysia, The study was based on a sample of 210 firms over period from 1995 to 2005. Findings appear that there is a significant impact of government ownership on company performance after controlling for company specific characteristics such as company size, non- duality, leverage and growth. The finding is of significant for investors and policy marketers which will serve as a guide for better investment decision.

Arbiyan and Safari (2009) investigate the effects of capital structure on profitability using 100 Iranian listed firms from 2001 to 2007. They assert short-term and total debts are positively related to profitability (ROE), which indicates a negative relation between long-term debts and ROE.

Bokpin and Abor (2009) analyze the effects of financial policy on corporate performance of emerging market firms. Their study employs fixed effects panel model estimation technique. The results indicate that capital structure has negative effects on return on assets and return on equity but is positively related with market-to-book value ratio. Dividend payout is also positively related with return on assets and return on equity.

Ebaid (2009) investigates into the impact of capital structure choice on performance of 64 firms from 1997-2005 in the Egyptian capital market. He employs three accounting-based measures including ROA, ROE and gross profit margin, and concludes capital structure choices, generally, has a weak-to-no impact on firm performance.

Jang and Tang (2009) have found a U-shaped relationship between financial leverage and profitability in an analysis of lodging companies. This study indicates that financial leverage is more closely related to profitability than international

diversification. Muradoglu and Sivaprasad (2009) also prove an inverse relationship between book leverage and risk-free, average portfolio returns.

Salehi & Biglar (2009) have studied the issue of whether the capital-structure decision impacts firms' performance. For this reason, they have used 3 definitions of capital structure in scope of book value to market value and 5 measures have been assumed for financial performance. They have applied the data of 117 corporate firms in Tehran Stock Exchange (TSE) in a 5-year time horizon (2002-2007). Results of their study demonstrate that capital structure influences financial performance. The significance of the influence of capital structure on performance respectively belonged to measures of adjusted value, market value and book value.

Chakraborty (2010) has employed two performance measures, including ratio of profit before interest, tax and depreciation to total assets and ratio of cash flows to total assets and two leverage measures, including ratio of total borrowing to assets and ratio of liability and equity, and reported a negative relation between these ones.

Chandrakumarmangalam and Govindasamy (2010) have investigated into the relationship between the leverage (financial leverage, operating leverage and combined leverage) and the earning per share. And it aims to describe how the earning capacity of the firm is influenced by the fixed operating costs and the fixed financial charges. The study also explains the relationship between the debt equity ratio and earnings per share and how effectively the firm be able debt financing. In the study, selected cement companies are taken for analysis and hypothesis are examined with the help of one way ANOVA and t-test. Apart from that, other tools like skewness and kurtosis are applied to examine 'Lack of symmetry' used to understand the distribution of data and 'Flatness or peakedness'. The results suggest that the leverage and profitability and growth are related and the leverage is having impact on the profitability of the firm.

George and Hwang (2010) argue that the negative relation between leverage and returns, found by the most researchers, is not a market mispricing. They state that the idea that equity risk is increasing in leverage relies on the frictionless markets assumption that makes investment and financing decisions separable, i.e., firms'

capital structure choices are unrelated to asset risk. It is possible that market friction leads low-leverage firms to have greater exposure to systematic risk, which dominates the amplification effect of leverage on equity risk. In this case, expected returns to low leverage firms will indeed be exposed to greater systematic risk than high leverage firms.

Khalid (2010) examines the effect of leverage and adjustment costs on various measures of corporate performance for 374 non-financial firms listed on Karachi Stock Exchange of Pakistan. The Arellano and Bond dynamic panel data estimation technique (a variant of GMM) is used to capture the role of adjustment costs and the dynamic behavior of corporate performance. A panel data set spanning 1988 to 2008 is used for the purpose. The results, thus obtained, are essentially mixed. The coefficients of the adjustment variable (lagged corporate performance) are positive for ROCE (Return on capital employed) and EPS (Earnings per Share) but ironically negative for ROE (Return on Equity). Similarly the effect of leverage on ROCE is negative but insignificant and positive significant when EPS is used as a measure of corporate performance. Whereas the relationship between leverage and ROE (another measure used in the paper for corporate performance) is negative and significant which implies that high leverage force the managers to perform optimally due to higher interest burden and agency cost. The positive effect of the size of firm on performance is confirmed for all the three measures of corporate performance. Furthermore, the positive and statistically significant impact of short term liabilities implies that high short term liabilities exert pressure on corporate managers to perform efficiently in the competitive market.

Moradi, Salehi and Erfanian (2010) have studied the relationship between financial leverage and the earnings response coefficient is studied through an income approach. The aim of the study is to provide further evidence about factors influencing the earnings response coefficient. The study includes corporations listed on the Tehran Stock Exchange. Research data has been collected from the seven years period from 2002 to 2008, and data analysis was done using multiple regressions. They point out that investors of Tehran Stock Exchange take into account the capital structures of firms and their outstanding debts while reacting to unexpected earnings changes. Their results indicate that the earnings response coefficient for the low-leverage firms

group is larger than the high-leverage ones, with differences in the means among groups statistically significant. Results show that lower earnings response coefficient is smaller in high financial leverage firms than low financial leverage ones. In other words, in Tehran Stock Exchange, financial leverage is considered as relevant information in market reaction to unexpected firm earnings.

Nimalathasan & Brabete (2010) point out the capital structure and its impact on profitability: a study of listed manufacturing companies in Sri Lanka. The analysis of listed manufacturing companies shows that Debt equity ratio is positively and strongly associated to all profitability ratios (Gross Profit, Operating Profit & Net Profit Ratios).

Nosa and Ose (2010) have analyzed capital structure and corporate performance in Nigeria between 1995 and 2009 using secondary data. The Ordinary Least Squares (OLS) technique of model estimation has been employed. They have found that capital structure is high in Nigeria over the years. They conclude that capital structure has not sustained effective funding required for growth and development of corporations. Thus the regulatory framework should be enhanced to provide good risk management and corporate governance.

Obert and Olawale (2010) have investigated into the impact of debt on the profitability of small manufacturing firms in Zimbabwe. The results indicate that the use of debt has a negative impact on the profitability of small manufacturing firms. The study recommends the creation of tax incentives and more equity funding for small manufacturing firms.

Onaolapo and Kajola (2010) examine the impact of capital structure on firm's financial performance using sample of thirty non-financial firms listed on the Nigerian Stock Exchange during the seven-year period, 2001-2007. Panel data for the selected firms have been generated and analyzed using Ordinary Least Squares (OLS) as a method of estimation. The result shows that a firm's capital structure is surrogated by Debt Ratio and that DR has a significantly negative impact on the firm's financial measures (Return on Asset, ROA and Return on Equity, ROE). These findings indicate consistency with prior empirical studies and provide evidence in

support of Agency cost theory. Results indicate that higher debt is associated with high growth rates and profitability in unlisted firms. The study shows that high debt ratio is positively associated with the firm's growth rate and profitability, although he observes the opposite among the listed firms, which he attributes to the cautiousness of large listed firms on the effect of reliance on debt financing on their share prices.

Artikis & Nifora (2011) have analyzed the capital structure, macroeconomic variables & stock returns: evidence from Greece. They have investigated into the impact that the capital structure of a firm has on its stock price performance. They have applied regression analysis at a sample consisting of Greek listed non-financial companies over the period 1998-2009, both at the full sample level and at four leverage deciles. They test if leverage is priced as a risk factor by constructing a leverage factor. They use diversified capital structure studies by broadening the limited work that has been accomplished on the base of leverage as an explanatory variable of returns. Their findings show that the leverage risk factor contains significant information content and that it adds a considerable portion in the explanation of stock returns.

Azhagaiah and Gavoury (2011) analyze whether the capital structure affects the profitability of corporate firms in India. A sample of 102 firms has been chosen by the Multi-Stage Sampling Technique. The data for a period of 8 years ranging from 1999-2000 to 2006-2007 have been collected and considered for analysis. The study proves that there has been a strong one-to-one relationship between capital structure variables and profitability variables: return on assets and return on capital employed. The capital structure has significant negative influence on profitability, and increase in use of debt fund in capital structure tends to minimize the net profit of the firms listed in Bombay Stock Exchange in India.

Doan and Nguyen (2011) examine the relationship between firm characteristics, capital structure and operational performance among a sample of 427 companies listed on the Vietnamese stock exchange during the three years 2007-2009. They employ path analysis to analyze simultaneous relationships among the various variables. The results suggest that for listed enterprises in Vietnam, operational performance has a negative effect on both of the measures of capital structure considered, namely long-term debt/total assets ratio and short-term debt/total assets

ratio, while the extent of state ownership has a positive effect on both. Enterprise size has a positive effect on long-term debt/total assets ratio only, while enterprise age has a positive effect on short-term debt/total assets ratio only. By contrast, business risk affects only LDR (negatively). The ratio of long-run to total assets affects the two capital structure measures in opposite ways: the effect is positive on LDR and negative on SDR. They consider the evidence to be inconclusive on the question of direction of causality between operational performance and LDR.

Kose (2011) investigates into leverage effect on stock returns. He provided the empirical evidence that this relation is masked by maturity: stocks with higher short-maturity debt earn significantly higher returns, but stocks with higher long-maturity debt earn lower returns. The opposite directions separated by maturity help explain why the relation between leverage and returns has been mixed. He further shows that the positive short-maturity return spread is significant, persistent, and not explained by well-known risk factors (such as size or book to market). He also provides the first theoretical model to explain the relation between maturity-related leverage and stock returns by endogenizing debt maturity; firms optimally choose the maturity of their debt by trading off the cost of long term maturity with its financial risk on equity. Firms with lower credit quality find it more expensive to borrow long term, so they optimally have debt with shorter maturity. In equilibrium, firms with higher short-term debt or lower long-term debt are riskier firms and earn higher expected returns.

Pratheepkanth (2011) has attempted to identify the impact of capital structure on companies' performance taking into consideration the level of companies' financial performance. The analysis has been made the capital structure and its impact on financial performance capacity during 2005 to 2009 financial year of business companies in Sri Lanka. The results shown the relationship between the capital structure and financial performance is negative association. Correlation analysis explains that there is a weak positive relationship between gross profit and capital structure. There is a negative relationship between net profit and capital structure. ROI and ROA also have negative relationship with capital structure. It is focused on the overall point of view of the relationship between the capital structure and financial performance and there is a negative association. The author points out that business companies mostly depend on the debt capital.

Rafique (2011) focuses on investigating the effect of the profitability of the firm and its financial leverage on the capital structure of the automobile sector companies in Pakistan. The capital structure of 11 listed firms has been analyzed by adopting an econometric framework over a period of five years. Estimating regression analysis and checking the relationship of the estimated model through Correlation Coefficient Test, the author found that the profitability of the firm and its financial leverage have an insignificant impact on the capital structure of the studied firms during the examined period. The study is unable to establish any significant relation between profitability and financial leverage effect on the capital structure of a firm.

Saedi and Mahmoodi (2011) examine the relationship between capital structure and firm performance the study used sample of 320 firms listed on Tehran Stock exchange over the period 2002- 2009. Expect all of the financial companies and banks, the study uses four performance measures (including ROA, ROE, EPS and Tobin's Q) as dependent variable and three capital structures (including long- term debt short-term debt and total debt ration) as independent variable. The study indicates that firm performances, which is measured by EPS and Tobin's Q, is significantly and positively associated with capital structure, while reported a negative relation between capital structure and ROA, and no significant relationship between ROE and capital structure.

San & Heng (2011) investigate into the relationship of capital structure and corporate performance of firm before and during crisis (2007). Their study focuses on construction companies which are listed in Main Board of Bursa Malaysia from 2005 to 2008. The result shows that there is relationship between capital structure and corporate performance and there is also evidence shows that no relationship between the variable investigated. For big companies, return on capital with debt to equity market value and earnings per share with long-term debt to capital have a positive relationship in medium companies and earnings per share with debt to capital has a negative relationship in small companies. In sum, the outcome reveals that the relationship exists between capital structure and corporate performance in selected proxies.

Singapurwoko and Wahid (2011) have used operational decision factor, macroeconomics factor, firm size factor, and industry factors to help understand the effect of debt to profitability. Operational decision factor is proxy by total assets turnover to explain how well the companies able to utilize their assets to generate profit. Firm size factor is proxy by assets to measure the companies' power to generate profit. While macro economics factor is proxy by BI rate because it can represent the inflation effect and the impact to the bank's interest rate. The uniqueness of this research is to add industry factor to compensate the other factors in determining the companies' profitability. The result indicates that in uncategorized (not categorized into different industries) data, debt, firm size, and operational decision effect positively significant, and macroeconomics effect insignificantly towards profitability. In addition, industry factor is found to affect companies' profitability.

Ahmad, Abdullah and Roslan (2012) investigate into the impact of capital structure on firm performance by analyzing the relationship between operating performance of Malaysian firms, measured by return on asset (ROA) and return on equity (ROE) with short-term debt (STD), long-term debt (LTD) and total debt (TD). The 58 firms were identified as the sample firms and financial data from the year 2005 through 2010 are used as observations for this study, resulting in a total numbers of observations of 358. The study finds that only STD and TD have significant relationship with ROA while ROE has significant on each of debt level.

Farisi and Hendrawan (2012) examine the impact of capital structure towards performance of two group of banks, conventional and Islamic banks, by using profit efficiency approach. Two stages procedure have been employed. In the first stage they measured profit efficiency score for each bank in Indonesia during year 2002-2008 by using distribution free approach. In the second stage they employ banks' capital ratio to measure their impact towards their performance. The output indicates the Islamic banks in Indonesia succeed to place their position at top 20% highest profit efficiency score. Result from the second stage indicates that bank's capital ratio have a negative effect on their profit efficiency. Furthermore, the negative effect happens to be higher for the Islamic bank group compared to conventional bank. By using pooled least square method to estimate trans-log profit efficiency model, some variables that

influence significantly to bank's profit are : channelled loans (positive effect), marketable securities (negative effect), labour cost (a negative effect). Although there is an indication that Islamic banks' might need additional capital that could create their relatively low ROE compared to their conventional peers, but descriptively it can be said that Islamic banks can manage their input and output variables good enough in yielding profit. The ratio of total equity to total asset has a negative and significant effect towards both Islamic and conventional banks' profit efficiency. The authors also note that additional capital will have higher negative effect on Islamic banks' performance compared to conventional banks.

Rehman, Fatima, and Ahmad (2012) analyze the impact of capital structure (i.e. short-term, long-term and total debts) on the profitability of companies in textile industry of Pakistan, while controlling the size of the company. A total of 17 companies (initially 7 and then another 10) have been selected randomly for the study. Regression analysis has been conducted on six different regression models. The results show that there is a significant and positive impact of short term debts on the profitability of the firm; however long-term debt has no impact on the profitability. It is shown that short-term debts are useful for companies having small sales and vice versa.

Rub (2012) investigates into the impact of capital structure on firm performance. The study has used fifth performance measures (including return on equity, return on assets, earning per share, market value of equity to the book value of equity and Tobin's Q) as dependent variable and four capital structure measures (including short-term debt, long- term debt and total debt to total assets, and total debt to total equity) as independent variable. The investigation is performed using panel data procedure for a sample of 28 listed companies the Palestinian Stock Exchange (PSE) over the period of 2006-2010.The results show that firm's capital structure has a positive impact on the firm's performance measures, in both the accounting and market's measures, and statistically significant with TDTA except MBVR is significant with TDTA and with SDTA. Finally, the study findings suggest equations to determine the impact of the various debts on the firm performance.

Salawu, Asaolu and Yinusa (2012) analyze, using panel data covering a period from 1990 to 2006, 70 listed firms in Nigeria. Pooled OLS, Fixed Effect Model and

Generalized Method of Moment Panel Model have been employed in the estimation and data have been sourced from the annual report and financial statement of the sampled firms. The results show that long-term debts, tangibility, corporate tax rate, dividend policy, financial and stock market development are all positively related with firms' performance. Furthermore, the positive relationship between stock market development and return on assets suggests that as stock market develops, various investment opportunities are opened to firms.

Velnampy & Niresh (2012) investigate into the relationship between capital structure and profitability of ten listed Srilankan banks over the past 8 year period from 2002 to 2009. Results of the analysis show that there is a negative association between capital structure and profitability except the association between debt to equity and return on equity.

III. Concluding remarks

Capital structure and the rational use of funds may be considered as firms' strategic variables for their impact on firms' profitability. The literature on the relationship between firm's profitability and capital structure has produced mixed results. Thus theoretical evidence on the relationship between firm profitability and capital structure is not conclusive. On the one hand, short-term debt in an environment of incomplete contracts grants the lender a control right as the firm's ability to roll over the debt may be conditioned on financial ratios and adequate performance. Increased availability of external finance should stimulate better performance. On the other hand, long-term debt limits managerial discretion by making access to new funds and over-investment less likely Hart and Moore (1995) -- a feature that would enhance profitability.

Studies show contradictory results about the relationship between increased use of debt in capital structure and firms performance. Some studies (Taub 1975; Roden and Lewellen 1995; Champion 1999; Ghosh *et al.* 2000; Hadlock and James 2002, Berger and Bonaccorsi di Patti, 2006) show positive relationship while some other studies (Kester 1986; Friend and Lang 1988; Fama and French 1998; Gleason *et al.* 2000; Simerly and Li 2000; Booth *et al.* 2001) show negative or weak or no relationship between firms performance and leverage level. In a study of listed firms in Ghana,

Abor (2005) has found that short-term and total debt are positively related with firm's ROE, whereas long-term debt is negatively related with firm's ROE. While examining the relationship between capital structure and performance of Jordan firms, Zeitun and Tian (2007) have found that debt level is negatively related with performance. In a similar study on microfinance institutions in sub-Saharan Africa, Kyereboah-Coleman (2007) has found that high leverage is positively related with performance (i.e. ROA and ROE) and Abor (2007) on small and medium-sized enterprises in Ghana and South Africa show that long-term and total debt level is negatively related with performance. A study by Ebaid (2009) based on a sample of non-financial Egyptian listed firms from 1997 to 2005 reveals that capital structure choice decision, in general terms, has a weak-to-no impact on firm's performance.

Recent findings of Titman and Wessels (1988), Harris and Raviv (1991) and Rajan and Zingales (1995) denote that in increase in leverage will decrease profitability. Bradly *et al.* (1984) demonstrate that the firms with less operational profits also have less leverage. Cai and Zhang (2005) have found that corporate with high leverage, converse link between leverage changes and return on stock is stronger. Wald (1999) believes that the link between profitability and debt-asset ratio is positive and significant.

On the other hand, Pandey (2004) reports a saucer-shaped relationship between capital structure and profitability. Moreover, Phillips and Sipahioglu (2004) find no significant relationship between the level of debt and financial performance. Ebaid (2009) asserts that capital structure choices, generally, has a weak-to- no impact on firm performance. Rafique (2011) points out that profitability of the firm and its financial leverage has an insignificant impact on the capital structure.

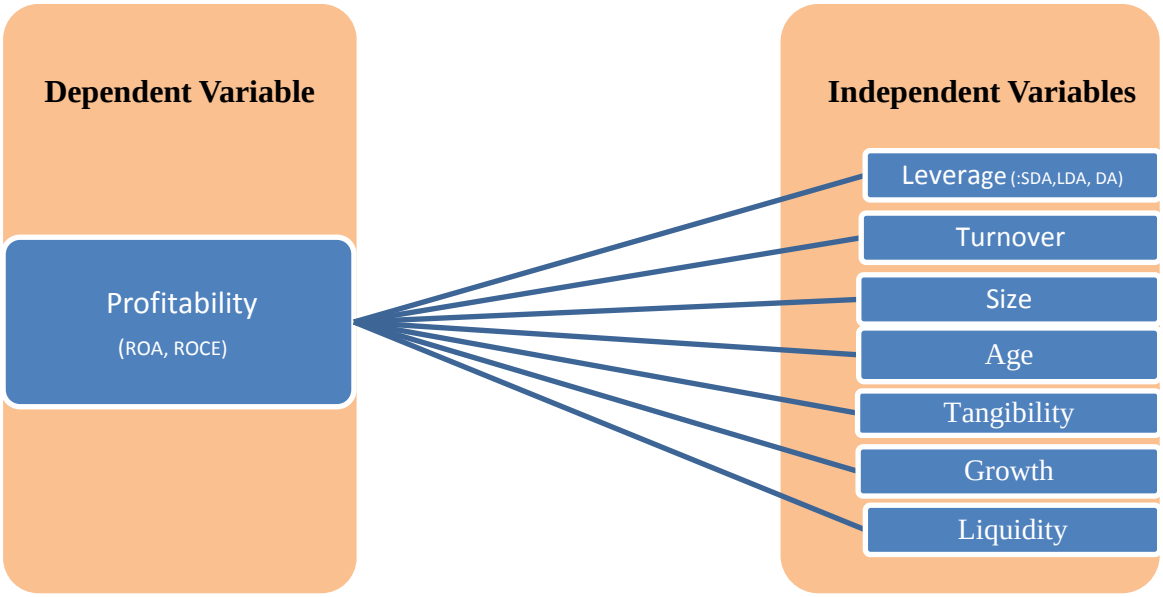
The profitability of a firm may not be affected by the capital structure alone. Thus it becomes urgent to identify the variables as supported by empirical literature that can have effect on profitability. Zeitun and Tian (2007) argue that growth firms are able to generate profit from investment. Mathur *et al.* (2001) pointed out that total asset turnover measures efficiency of the management toward the utilization of assets of the firm that can lead to yield positive returns to the firm. Thus a positive relationship exists between asset turnover and firm performance. Penrose (1959) argues that larger

firms can enjoy economies of scale and these can favourably impact on profitability. Hence firm size can be considered to be an important determinant of firm's profitability. Stinchcombe (1965) asserts that older firms can achieve experience-based economies and can avoid the liabilities of newness. Thus the age of a firm may be taken as proxy for reputation of firm and may have an impact on firm's profitability. Mackie-Mason (1990) concludes that a firm with higher level of tangible assets in the asset base made the debt choice more likely and influences the firm performance. Likely the most finance literature favours a positive relationship between asset tangibility and profitability. Goddard *et al.* (2005) conclude that higher liquidity levels mean a greater possibility for firms to be more effective in facing up to possible changes in their operating markets. Goddard *et al*. (2005) and Macas Nunes *et al.* (2012) find a positive relationship between liquidity and profitability. Hence, in addition to capital structure variable, profitability may be affected by assets turnover, firm size, age, tangibility, growth, and liquidity.

Empirical studies have used capital structure as explanatory and their results have shown that the impact of these variables on firms' profitability is not always clear cut. Though there is vast literature available that examines relationship of capital structure and profitability of firms in developed nations, very less tested empirically for developing and emerging economies. As compared to the developed markets like Europe, America etc., it has been found by the Eldomiaty (2007) that capital markets are less efficient and suffers from higher level of asymmetry in terms of information in emerging and developing markets than capital markets in developed countries. So this study undertakes upon itself to take Nepalese evidence as sample of undeveloped market and evaluate profitability of firms against capital structure.

This part of the study analyses the effect of capital structure on the profitability of non- financial corporate firms in Nepal. Based on the overview of capital structure theories and review of related empirical works, a finalized conceptual model has been constructed. The model related to leverage and profitability introduces new constructs and uniquely combines them in specifying that the profitability is a function of capital structure and other variables like: turnover, firm size, age, tangibility, growth, liquidity. The finalized conceptual framework has been depicted in Figure 3.1. This framework is taken as land mark for developing the model for the study.

Figure 3.1
Conceptual framework of capital structure and profitability



3.3 Study's methodology

I. Selection of enterprises

All non-financial enterprises listed at the Nepal Stock Exchange are considered as population and eighteen enterprises are selected as sample for the study. The sample enterprises have been selected using stratified sampling technique. The period covered for the period is 1998-2012 and total observations constitute 251. Out of 251 observations available for the analysis, 166 observations are from manufacturing strata and 85 observations from non-manufacturing strata. The detail of the enterprises selected for the study has been exposed in the methodology section of the introductory chapter.

II. Nature and sources of data

Secondary data have been used in order to estimate the effect of leverage on corporate profitability. Required data have been collected from the office of the Auditor General (Annual Reports), Nepal Stock Exchange (Financial statements of listed companies), Ministry of Finance (Performance report of Government Corporation and Economic Survey) and Security Board of Nepal. Other relevant data have also been collected from concerned companies selected for the purpose of the study. Some of the valuable information about the leverage and corporate profitability has also been

received from the concerned authorities of selected enterprises, asking and interacting with them individually. Archives, reports and documents are examples of internal secondary data. In the case of missing information, complementary data have been collected by using reports available in the library and on the internet.

III. Method of analysis

Data have been processed by using Statistical Package for Social Sciences (SPSS) 16 version. The major methods used for the analysis of data are as follows:

1. Descriptive statistics

Data have been processed by descriptive statistics containing percentage, mean, median, standard deviation, maximum and minimum results in each variable have been described for the detail analysis of result about its significance.

2. Correlation analysis

The most common measure of "correlation" is Pearson's coefficient of correlation. Pearson's coefficient of correlation is designated by letter r and range in value from -1 to +1. The sign of the correlation implies the "direction" of the association. In this part, Pearson correlation coefficients for all variables are considered to be estimated. This analysis tries to find out the relationship between profit measures and the measures of leverage with other variables. The priori hypothesis in this analysis is that there is strong relationship between profitability and measures of leverage (capital structure) in Nepalese enterprises.

3. The Model

Regression models are generally used to predict one variable from one or more other variables. In this study least square regression model has been used to estimate empirical evidence related to effect of leverage on profitability. Using the approach adopted by Mathur *et. al.* (2001), Abor (2005), Onaolapo and Kajola (2010), Carvalho, Serrasqueiro and Nunes (2013) as is mostly found in the other literature, the effect of corporate leverage on firm's profitability has been examined. The relationship between leverage (capital structure) and profitability is thus estimated in the regression models. The regression equations used in this study are:

$$ROA_{i,t} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t} \quad (1)$$

$$ROA_{i,t} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t} \quad (2)$$

$$ROA_{i,t} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t} \quad (3)$$

$$ROCE_{it} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{it} \quad (4)$$

$$ROCE_{it} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t} \quad (5)$$

$$ROCE_{it} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t} \quad (6)$$

Where:

$ROA_{i,t}$ is earning before interest and tax divided by total asset for firm *i* in time *t;*

$ROCE_{i,t}$ is earning before interest and tax divided by permanent capital for firm *i* in time *t;*

$SDA_{i,t}$ is short-term debt divided by the total assets for firm *i* in time *t;*

$LDA_{i,t}$ is long-term debt divided by the total assets for firm *i* in time *t;*

$DA_{i,t}$ is total debt divided by the total assets for firm *i* in time *t;*

$TURN_{i,t}$ is sales divided by total assets for firm *i* in time *t;*

$SIZE_{i,t}$ is the natural logarithm of total assets for firm *i* in time *t;*

$AGE_{i,t}$ is the natural logarithm of the number of years since the inception of the firm to the observation date for firm *i* in time *t;*

$TANG_{i,t}$ is net fixed asset divided by total assets for firm *i* in time *t;*

$GROW_{i,t}$ is the change in total assets divided by total assets for firm *i* in time *t;*

$LIQUI_{i.t}$ is the current assets divided by current liability for firm *i* in time *t;*

$e_{i,t}$ is the error term.

Variables used in this study for the analysis include profitability as dependent variables, whereas leverage ratios and other variables as independent variables. Profitability (ROA) is operationalized using a commonly used accounting-based measure: the ratio of earnings before interest and taxes (EBIT) to total assets. Profitability, as measured by ROCE, is also commonly used accounting-based measure: the ratio of earnings before interest and taxes (EBIT) to permanent capital. The leverage ratios (explanatory variables) used in the study includes:

- Short-term debt to the total assets
- Long-term debt to total assets; and
- Total debt to total assets

The other explanatory variables included in the regression models are: assets turnover, firm size, age, tangibility, growth and liquidity. The co-efficient of the explanatory variables ($\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$) can be estimated by the use of OLS technique.

4. Specification of variable and hypotheses

This study considers profitability as dependent variable. Some authors such as Bettis and Hall (1982), Demsetz and Lehn (1985), Habib and Victor (1991), Gorton and Rosen (1995), Mehran (1995), Ang, Cole and Line (2000), Margaritis and Psillaki (2006), Rao *et al.* (2007), Zeitun and Tian (2007) among others, made use of ROA and ROE as performance proxies in their studies. Also, many researchers, as reported by Xu and Wang (1997) and Zeitun and Tian, 2007, Tobin's Q is viewed as a noisy signal and not a good performance (profitability) measure. Thus, return on assets (ROA) has been selected to measure profitability because it is considered as the best profitability index when financial variables are taken into consideration as explanatory.

The independent (explanatory) variables used in this study are the debt ratios (DR). The debt ratios used include: short-term debt to the total assets, long-term debt to total assets; and total debt to total assets. These ratios serve as the proxy for capital structure. However, in addition to debt, a number of factors may impact on profitability (firm performance), hence, the need for other variables to be included in the model. The other explanatory variables included: in Model 1, Model 2, Model 3, Model 4, Model 5, and Model 6 are: asset turnover (TURN); firm's size (SIZE); firm's age (AGE); asset tangibility (TANG); and growth opportunity (GROW) and liquidity (LIQU). The variables used to estimate the causal effect on profitability are described as below:

A. Leverage (capital structure)

From literature, there is evidence that a firm's profitability is affected by the capital structure (Tian & Zeitun 2007, Salawu 2007, Kim *et al.* 1998, Krisnnan & Moyer 1997, Rajan & Zingales 1995). If capital structure does affect a firm's performance and value, then a strong correlation between firm's performance and capital structure is expected. It has been further argued that short-term debt influences a firm's performance negatively because short-term debt exposes firms to the risk of

refinancing (Tian & Zeitun 2007, Pandey 2001, Kim *et al.*1998, Stohs and Mauer 1996). It is therefore expected that the debt maturity ratio (short-term debt) will have a significant impact on corporate performance because of banking credit policy.

Champion (1999) has reported that the use of debt or leverage is a way to improve the firm's performance. Besides that, Abor (2007) has found that there is a positive relationship between short-term debt and return on assets in South Africa. He argues that this is attributed to the fact that short-term debt is cheaper than the long-term debt. Mesquita and Lara (2003) have also found similar results in their study on Brazilian companies. Therefore, this study hypothesizes that there is a positive relationship between short-term debt and return on assets. Following the approach used by Abor (2005), Kyereboah and Coleman (2007), and Abor (2007) short-term debt ratio is calculated as short-term debt divided by total assets.

Mesquita and Lara (2003) and Abor (2005) have found a negative relationship between the ratio of long-term debt to total assets (LDA) and return on equity. This is explained by the fact that long-term debts are relatively more expensive and hence result in low profitability. Hence, in this study long-term debt is hypothesized to have a negative relationship with profitability. Following approach used by Abor (2005) and Kyereboah and Coleman (2007) long-term debt ratio is calculated as long term debt divided by total assets.

Gleason *et al.* (2000) have found total debt to be negatively related to return on assets and the result is consistent with Min-Tsung Chen (2009) who has found that the anticipated debt ratio has significantly negative effects on operating performance. Jermias (2008) has also found a negative relationship between financial leverage and return on equity. Thus, a negative relationship is hypothesized between total debts and profitability. Consistent with short-term debt and long-term debt measure, total debt ratio (DA) is calculated by dividing total debt by total assets.

The agency cost theory predicts that higher leverage is expected to lower agency costs, reduce inefficiency and thereby lead to improvement in firm's performance. Berger (2002) argues that increasing the leverage ratio should result in lower agency costs of outside equity and improve firm performance, all else held constant. This

study, therefore, argues that a firm's debt ratio affects its profitability negatively. Based on given evidence an inverse relationship is expected between leverage (capital structure) and firm profitability. The following hypothesis has been tested:

H_1: A firm's capital structure should have a negative impact on its profitability.

B. Asset Turnover

Asset turnover ratio is an important financial ratio that can be used to achieve the purpose of measuring management efficiency, hence the introduction of the variable, TURN, as a controlled variable, in this study. Mathur *et al.* (2001) measured efficiency by total asset turnover, where it is figured by sales over total assets. The efficiency of the management of a firm can be measured by the way and manner they utilize the assets of the firm to yield positive returns to the firm. It is expected that a positive relationship exists between asset turnover and firm performance. The hypothesis to be tested here is:

H_2: There should be a positive relationship between asset turnover and firm profitability.

C. Firm Size

The size of a firm is considered to be an important determinant of firm's profitability, hence the need to introduce in this study, a controlled variable, SIZE, which serves as a proxy for firm's size. Penrose (1959) argues that larger firms can enjoy economies of scale and these can favourably impact on profitability. Following Abor (2007), size is measured by the log of the total assets. This measure is also similar to that used by Kyereboah and Coleman (2007), Chen *et al.* (2008) and Victoria Krivogorsky *et al.* (2009). A positive relationship between firm size and its profitability is expected. The hypothesis to be tested here is:

H_3: There should be a positive relationship between firm size and profitability.

D. Age

The age of a firm may be taken as proxy for reputation of firm and may have an impact on firm's profitability. Stinchcombe (1965) argues that older firms can achieve experience-based economies and can avoid the liabilities of newness. Thus, a positive relationship is expected between age and firm's profitability. The hypothesis to be tested here is:

H_4: There should be a positive relationship between firm's age (reputation) and its profitability.

E. Tangibility

This is considered to be one of the major determinants of firm's performance. The most common argument in the literature favours a positive relationship between asset tangibility and profitability. Mackie-Mason (1990) concludes that a firm with high fraction of plant and equipment (tangible assets) in the asset base made the debt choice more likely and influences the firm performance. Akintoye (2008) argues that a firm which retains large investments in tangible assets will have smaller costs of financial distress than a firm that relies on intangible assets. Thus, relationship between asset tangibility and firm profitability is expected to be positive. The hypothesis to be tested here is:

H_5: There should be a positive relationship between firm's asset tangibility and its profitability.

F. Growth opportunities

Abor (2005) measures growth by sales growth but according to Carpentier (2006), growth is measured by the annual growth rate of total assets. The extant literature considers growth opportunities available to a firm as an important determinant of firm's performance, hence the introduction of an independent variable, GROW, a proxy for growth opportunities in this study. Zeitun and Tian (2007) argue that growth firms are able to generate profit from investment. Thus a positive relationship between growth opportunities and firm's profitability is expected. The hypothesis to be tested here is:

H_6: There should be a positive relationship between a firm's growth opportunity and its profitability.

G. Liquidity

Goddard *et al.* (2005) conclude that higher liquidity levels mean a greater possibility for firms to be more effective in facing up to possible changes in their operating markets as a consequence of increased competition. This happens because firms with higher levels of liquidity are more able to react in the short-term to increased competition, as a consequence of the lesser stress in managing their financial

resources. Greater capacity to meet short-term commitments may contribute to take advantage of good investment opportunities. The good investment opportunities can enhance profitability. Goddard *et al.* (2005) in the context of firms from various European countries and Macas Nunes *et al.* (2012) for young Portuguese SMEs also find a positive relationship between liquidity and profitability. In the same manner, liquidity can contribute to increased profitability in Nepalese companies. Thus the hypothesis to be tested here is:

$H_{7:}$ There should be a positive relationship between liquidity and its profitability.

Table 3.3 summarizes the selected explanatory variables that affect corporate firms' profitability along with priori hypothesis.

Table 3.3
Effect of leverage on profitability along with priori predicted signs

Variables	Definitions	Expected Signs
Leverage (SDA, LDA, DA)	SDA: short-term debt to the total assets; LDA: long-term debt to total assets; DA: total debt to total assets.	-
Turnover (TURN)	Sales divided by total assets.	+
Size (SIZE)	Natural logarithm of total assets.	+
Reputation (AGE)	Natural logarithm of number of years since the inception of the firm to the observation date.	+
Tangibility (TANG)	Net fixed assets divided by total assets.	+
Growth (GROW)	Change in total assets divided by total assets.	+
Liquidity (LIQUI)	Current assets divided by current liability.	+

3.4 Data analysis and findings

3.4.1 Profitability position

The ratio of earnings before interest and taxes (EBIT) to total assets shows that how large the profit is relative to the fund invested in total assets. Table 3.4 gives the detailed information of return on assets (ROA). Among 18 sample companies, 14

Table 3.4
EBIT to total assets ratios (ROA) for the period of 1998 to 2012

This table shows the position of EBIT to total assets for selected companies for the period of 1997-2008. EBIT to total assets ratio has been calculated dividing EBIT by total assets. Average in column indicates the average EBIT to total assets ratio of selected companies over 15 years time period and average in row indicates for an individual company. S.D. indicates the standard deviations of EBIT to total assets ratio over different periods and companies.

Co./Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg	S.D.
BBCL	0.20	0.23	0.29	0.35	0.38	0.31	0.33	0.37	0.39	0.37	0.30	0.27	0.35	0.30	NA	0.32	0.06
BNTL	0.28	0.19	0.14	0.11	0.07	0.05	0.04	0.03	-0.06	0.05	0.05	0.17	0.20	0.17	0.17	0.11	0.09
BNL	0.10	0.09	0.07	0.05	0.06	0.03	0.05	0.05	0.03	-0.01	0.04	0.05	0.17	0.16	0.17	0.07	0.06
FHL	-0.11	-0.06	-0.16	-0.09	-0.15	0.00	0.02	-0.13	-0.11	-0.10	0.04	-0.05	-0.12	-0.09	NA	-0.08	0.06
GRUL	NA	NA	0.00	-0.04	-0.01	0.00	-0.03	-0.02	-0.03	-0.03	-0.06	0.07	0.07	-0.05	NA	-0.01	0.04
HDL	NA	NA	NA	NA	-0.07	-0.03	-0.01	0.00	0.01	0.05	0.04	0.01	0.09	0.14	0.20	0.04	0.08
KUL	0.09	0.16	0.11	0.08	0.06	-0.01	0.27	0.00	-0.03	-0.19	-0.11	-0.16	0.08	0.20	NA	0.04	0.13
NBGUL	0.01	-0.02	-0.12	-0.04	0.05	-0.06	-0.08	0.01	-0.08	0.00	0.05	0.02	-0.04	-0.03	NA	-0.02	0.05
NBBUL	0.13	0.07	0.07	0.07	0.07	-0.03	0.08	0.10	0.06	0.06	0.05	0.06	0.05	0.06	NA	0.06	0.03
NLOL	0.11	0.17	0.07	0.01	0.09	0.05	0.03	0.05	0.02	0.07	0.05	0.07	0.07	0.08	NA	0.07	0.04
OHL	NA	0.01	0.01	0.02	-0.02	-0.03	0.02	-0.01	0.03	0.06	0.07	0.09	0.10	0.11	0.12	0.04	0.05
STC	0.09	0.08	0.25	0.09	0.08	0.08	0.10	0.05	0.05	0.02	0.05	0.05	0.07	0.08	NA	0.08	0.05
SRJML	0.01	0.03	0.04	0.03	0.05	0.04	0.05	0.04	-0.03	0.04	0.01	0.01	0.00	0.04	NA	0.03	0.02
SHL	0.13	0.12	0.10	0.05	-0.08	-0.04	-0.04	-0.11	0.01	0.06	0.11	0.17	0.19	0.17	0.19	0.07	0.10
SSML	0.06	0.04	0.04	0.04	0.06	0.02	0.06	0.06	0.02	-0.16	-0.01	0.00	-0.12	-0.12	NA	0.00	0.08
TRHL	0.00	0.00	0.00	0.00	0.00	-0.03	-0.01	-0.01	0.00	0.02	0.02	0.03	0.05	0.04	NA	0.01	0.02
UNL	0.28	0.25	0.24	0.14	0.12	0.16	0.21	0.23	0.32	0.35	0.41	0.48	0.53	0.51	0.47	0.31	0.14
YAYHL	0.15	0.14	0.11	0.09	0.04	0.05	0.05	0.03	0.00	0.05	0.07	0.08	0.06	0.10	NA	0.07	0.04
Average	0.10	0.09	0.07	0.06	0.04	0.03	0.06	0.04	0.03	0.04	0.07	0.08	0.10	0.10	0.22	0.07	0.06
S.D	0.10	0.09	0.12	0.10	0.11	0.09	0.11	0.11	0.13	0.14	0.12	0.13	0.15	0.15	0.13	0.10	0.03

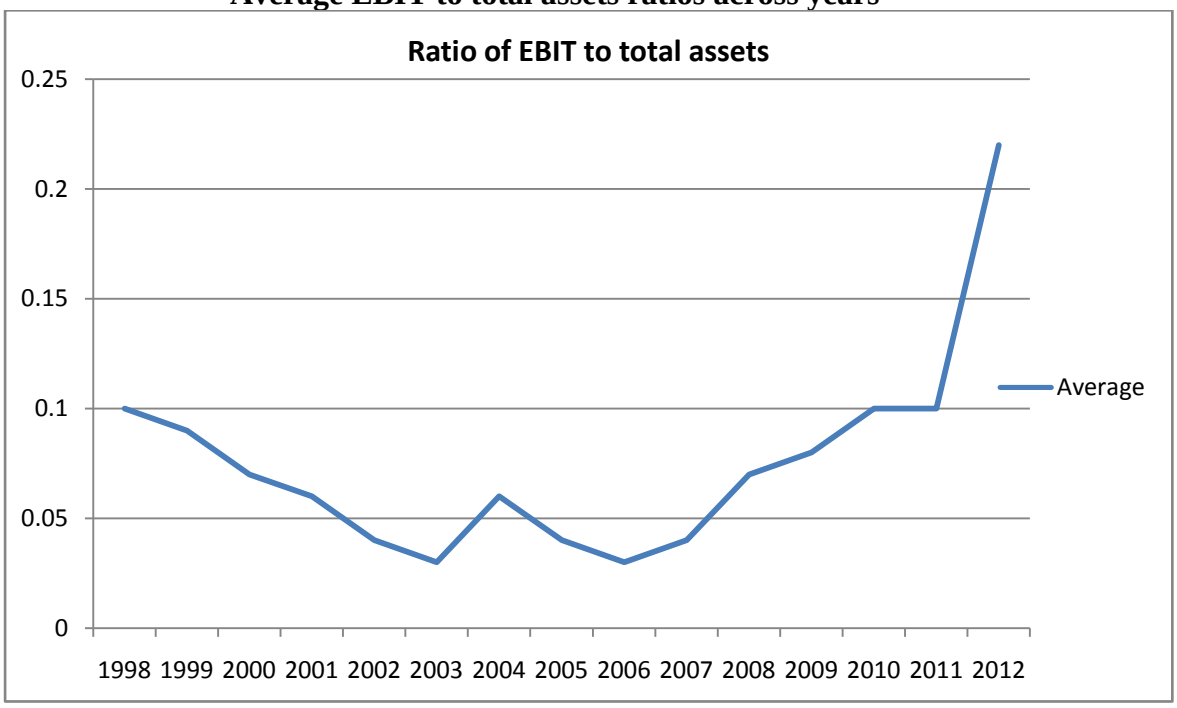
Source: Financial statement of sample companies from 1998 to 2012

companies reported positive average return on assets (ROA). The rest 4 companies have zero or negative average return on assets. The average ratio of EBIT to total asset is the largest one for BBCL (32%), followed by UNL (31%), BNTL (11%), STL (8%), BNL, NLOL, SHL and YAYHL (7%), NBBUL (6%), HDL, KUL and OHL (4%), SRJML (3%) and TRHL (1%). On an average, the sample companies have 7% returns on assets (ROA).

The year-wise average ratio reveals that the average ROA of sample companies has increased over the period of time. The average size of ROA which was 10% in year 1998 and it gradually decreased to 3% in 2003. It was 6% in 2004 and again reduced

to 3% in 2006 then after it gradually increases to 22% in 2012. The results display that average ROA shows the decreasing trend for first 6 years and there is no specific trend for next 3 years, and then it seems increasing trend for last six years of sample period. The Table 3.4 also shows that the ROA vary widely within in the individual companies. It varies from 20% to 38% for BBCL, -6% to 28% for BNTL, -1% to 17% for BNL, -16% to 4% for FHL, -6% to 7% for GRUL, -7% to 20% for HTL, -19% to 27% for KUL,-12% to 5% for NBGUL and so on. When the ratio of EBIT to total assets is compared over the period of time for individual sample companies, it can be seen that the ROA have increased in the majority of the companies in recent years. The same kinds of results have been reflected in Figures 3.2 across years.

Figure 3.2
Average EBIT to total assets ratios across years



Source: Financial statement of sample companies from 1998 to 2012

3.4.2 Leverage and profitability-all sample

A. Descriptive statistics of leverage and profitability-all sample

Table 3.5 provides a summary of the descriptive statistics for the dependent and independent variables for all samples of firms. It shows that return on assets (ROA) for the sample has an average value of 0.069 and a standard deviation of 0.121. The highest ROA is 0.530 and the lowest ROA is -0.186. The average return on capital

employed (ROCE) is 0.188 with a standard deviation of 0.800. The maximum value of ROCE is 10.471, while the minimum value is -5.559.

Table 3.5
Descriptive statistics of profitability variables-all sample (n=251)

Variables	Scale	Mean	Std. Dev.	Minimum	Maximum	Percentiles		
						25	50	75
ROA	Ratio	0.069	0.121	-0.186	0.530	0.003	0.048	0.102
ROCE	Ratio	0.188	0.800	-5.559	10.471	0.012	0.089	0.302
SDA	Ratio	0.615	0.642	0.030	3.790	0.290	0.430	0.650
LDA	Ratio	0.257	0.362	0.000	2.960	0.000	0.120	0.430
DA	Ratio	0.872	0.656	0.230	4.110	0.540	0.710	0.910
TURN	Ratio	0.829	0.671	0.000	5.908	0.428	0.682	1.061
SIZE	Ln	19.928	1.192	17.681	22.331	18.766	20.256	20.772
AGE	Ln	2.704	0.742	0.000	3.807	2.303	2.773	3.332
TANG	Ratio	0.499	0.277	0.030	0.990	0.250	0.470	0.750
GROW	Ratio	0.122	0.661	-0.878	9.440	-0.056	0.037	0.184
LIQUI	Ratio	1.208	1.530	0.043	11.203	0.501	0.840	1.332

Source: Annual report of sample companies

Short-term debt (SDA) which is measured by the ratio of short-term debt to total assets has an average value of 0.615. The standard deviation of SDA is 0.642, while the maximum SDA is 3.790 while the minimum SDA is 0.030. The long-term debt (LDA), measured by the ratio of long-term debt to total assets has average 0.257 and its standard deviation is also 0.362. The highest LDA is 2.960 and the lowest LDA is 0.000. The total debt to total assets (DA) has a mean 0.872 and standard deviation 0.656. The highest DA is 4.110 while the lowest DA is 0.230. The turnover (TURN) which is measured by the ratio of sales to total assets has an average value of 0.829. The standard deviation of TURN is 0.671, while the highest TURN is 5.908 and the lowest TURN is 0.000. For size (SIZE), measured by natural log of total assets, the mean value is 19.928 and the maximum SIZE is 22.331 while lowest SIZE is 17.681. The standard deviation of SIZE is 1.192. The Mean value of AGE is 2.704 and also has a standard deviation of 0.742. The maximum value of AGE is 3.807 while minimum value is 0.000. The tangibility (TANG) which is measured by ratio of fixed assets to total assets ratio has a mean value of 0.499 and standard deviation is 0.277. The maximum value of TANG is 0.990, while minimum value is 0.030. The growth (GROW) has the mean value 0.122 and standard deviation 0.661. The highest value of GROW is 9.440 and the lowest value is -0.878. Liquidity (LIQUI), measured by

the ratio of current assets to current liability has a mean value of 1.208, standard deviation of 1.530, maximum value of 11.203 and the minimum value of 0.043.

B. Relationship between leverage and profitability-all sample

Correlation analysis has been performed in order to establish relationship among all the variables of interest. Output of Pearson correlation analysis has been shown in Table 3.6. In this study, eleven variables have been analyzed and estimate the relationships among all of them. Correlation analyses provide that SDA, LDA, DA and TANG are negatively significantly related to ROA. The related coefficients are -.207**, -.201**, -.313** and -.267** respectively. But TURN and AGE are positively significantly related to ROA with correlation coefficient of .424** and .294** respectively. While for ROCE only LDA and TANG is significantly and negatively related. Their related coefficients are -.169** and -.137* respectively. On the other hand TURN is positively significant with ROCE and the respective coefficient is .152*.

Table 3.6 shows the highest correlation coefficient between SDA and DA (corr = .845**). These two variables are individually used in the regression, thus it may not cause multicollinearity.

Table 3.6
Correlation coefficients of leverage and profitability variables- all sample (n=251)

Variables	ROA	ROCE	SDA	LDA	DA	TURN	SIZE	AGE	TANG	GROW	LIQU
ROA	1										
ROCE	.242**	1									
SDA	-.207**	0.015	1								
LDA	-.201**	-.169**	-.240**	1							
DA	-.313**	-0.079	.845**	.315**	1						
TURN	.424**	.152*	-0.06	0.031	-0.042	1					
SIZE	0.067	0.013	-.408**	.185**	-.297**	-0.08	1				
AGE	.294**	0.096	.126*	-.359**	-0.074	.128*	0.001	1			
TANG	-.267**	-.137*	-.353**	.318**	-.169**	-.476**	.391**	-.328**	1		
GROW	0.016	0.112	-0.075	0.035	-0.054	0.028	0.108	0.052	-0.12	1	.
LIQUI	0.053	-0.022	-.291**	.204**	-.173**	.171**	-0.111	-0.015	-.277**	.183**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

In respect to the among other independent variables, the correlation coefficients are found less than or equal to 0.476, hence indicating that there is the absence of multicollinearity.

C. Effect of leverage on profitability - all sample

A series of regression analyses were executed and the results are summarized in Table 3.7 Panel-A and Panel-B. The analysis identifies the relationship between capital structure and profitability, also considering the effect of the assets turnover, firm size, age, tangibility, assets growth and liquidity on profitability. F-test is used to test the hypothesis that the variation in the independent variables explained a significant portion of the variation in the dependent variable in the overall models. The F-tests as shown in Table 3.7 Panel-A and Panel-B indicate that all the models are significant in the explaining the firms profitability, however the explanatory power of the models as shown by the R-square value is very low, ranging from only 5% to 33%.

Table 3.7-Panel-A
Regression results of leverage and profitability-all sample

$ROA_{i,t} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (1)

$ROA_{i,t} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (2)

$ROA_{i,t} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (3)

Predictors	Dependent Variable: ROA (LEV = SDA)			Dependent Variable: ROA (LEV = LDA)			Dependent Variable: ROA (LEV = DA)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	-0.039	0.763		-0.343	0.004		-0.076	0.537	
LEV	-0.061	0.000	1.716	-0.062	0.005	1.410	-0.057	0.000	1.207
TURN	0.054	0.000	1.424	0.074	0.000	1.386	0.061	0.000	1.345
SIZE	0.003	0.611	1.411	0.014	0.024	1.279	0.005	0.390	1.337
AGE	0.037	0.000	1.165	0.029	0.004	1.259	0.029	0.002	1.190
TANG	-0.097	0.006	2.257	0.000	0.991	2.079	-0.064	0.047	1.954
GROW	-0.006	0.559	1.077	-0.004	0.715	1.077	-0.005	0.622	1.076
LIQUI	-0.011	0.027	1.418	0.003	0.488	1.236	-0.007	0.137	1.206
	R^2 = 0.313; Adj.R^2 = 0.293 F-value=15.817;F(sig) = 0.000			R^2 = 0.275; Adj.R^2 = 0.254 F-value=13.190;F(sig)= 0.000			R^2 = 0.331; Adj.R^2 = 0.312 F-value= 17.197;F(sig) = 0.000		

**. Significant at the 0.01 level (2-tailed).

*. Significant at the 0.05 level (2-tailed).

The results as shown in Table 3.7 Panel-A and Panel-B indicate that also considering the effect of efficiency (TURN), size, age, tangibility, growth and liquidity on profitability; short-term debt, long-term debt and total debt is found by the t-test, to be only significantly related to ROA but not ROCE. For ROCE, long-term debt only found to be significant. It can be concluded that capital structure has a significant negative effect on firms, profitability. It implies that as leverage increases profitability decreases in Nepalese sample companies. This finding contradicts with Myers and Majluf'(1984), which states that there is a positive relationship between the long-term debt levels and the profitability of a company.

Table 3.7-Panel-B
Regression results of leverage and profitability-all sample

$ROCE_{it} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (4)

$ROCE_{it} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (5)

$ROCE_{it} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (6)

Predictors	Dependent Variable: ROCE (LEV =SDA)			Dependent Variable :ROCE (LEV = LDA)			Dependent Variable: ROCE (LEV = DA)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	-0.219	0.830		-0.507	0.569		0.146	0.880	
LEV	-0.037	0.720	1.716	-0.380	0.020	1.410	-0.124	0.140	1.207
TURN	0.131	0.143	1.424	0.181	0.039	1.386	0.125	0.149	1.345
SIZE	0.020	0.694	1.411	0.035	0.461	1.279	0.009	0.848	1.337
AGE	0.047	0.519	1.165	0.000	0.992	1.259	0.031	0.670	1.190
TANG	-0.307	0.260	2.257	-0.080	0.758	2.079	-0.340	0.178	1.954
GROW	0.128	0.105	1.077	0.135	0.084	1.077	0.128	0.102	1.076
LIQUI	-0.050	0.205	1.418	-0.019	0.605	1.236	-0.056	0.116	1.206
	R^2 = 0.049; Adj.R^2 = 0.022 F-value=1.800; F(sig) = 0.088			R^2 = 0.070; Adj.R^2 = 0.043 F-value=2.600; F(sig) = 0.013			R^2 = 0.057; Adj.R^2 = 0.030 F-value= 2.110; F(sig) = 0.043		

**. Significant at the 0.01 level (2-tailed).

*. Significant at the 0.05 level (2-tailed).

In addition to the main findings on capital structure effect on firms' profitability, this study also shows that ROA of Nepalese listed companies is affected by TURN, AGE, TANG, LIQUI and SIZE. In the case of ROCE, the efficiency (TURN) in addition to leverage seems to affect the profitability.

VIF values in six models displayed in Table 3.7 a Panel-A and Panel-B are less than two (i.e. VIF < 2). It indicates that the estimated regression equations are free of multicollinearity.

3.4.3 Leverage and profitability- manufacturing sample

A. Descriptive statistics of leverage and profitability

Table 3.8 describes the variables used in the analysis and summarizes the results of descriptive statistics of dependent variables and independent leverage variables. Return on assets (ROA) for the sample has a mean value of 0.055. It indicates that the Nepalese sample companies generate about 5.5% return from their assets. The maximum ROA is 0.530 and the minimum ROA is -0.186. The average return on capital employed (ROCE) is 0.200 with a standard deviation of 0.972. The maximum value of ROCE is 10.471, while the minimum value is -5.559. The mean value of ROCE indicates that the Nepalese sample companies generate 20% return from their permanent capital (i.e. capital employed).

Short-term debt (SDA) which is measured by the ratio of short-term debt to total assets has a mean value of 0.744. The standard deviation of SDA is 0.744, while the maximum SDA is 3.790 while the minimum SDA is 0.050. The long-term debt (LDA), measured by the ratio of long-term debt to total assets has average 0.193 and its standard deviation is also 0.267. The highest LDA is 1.060 and the lowest LDA is 0.000. The total debt to total assets (DA) has a mean 0.937 and standard deviation 0.718. The highest DA is 3.790 while the lowest DA is 0.230.

Table 3.8
Descriptive statistics of profitability variables-manufacturing sample (n=166)

Variables	Scale	Mean	Std. Dev.	Minimum	Maximum	Percentiles		
						25	50	75
ROA	Ratio	0.055	0.121	-0.186	0.530	-0.011	0.045	0.085
ROCE	Ratio	0.200	0.972	-5.559	10.471	0.011	0.087	0.319
SDA	Ratio	0.744	0.744	0.050	3.790	0.360	0.540	0.775
LDA	Ratio	0.193	0.267	0.000	1.060	0.000	0.020	0.325
DA	Ratio	0.937	0.718	0.230	3.790	0.540	0.750	0.963
TURN	Ratio	0.963	0.616	0.000	3.023	0.559	0.866	1.250
SIZE	Ln	19.580	1.059	17.681	21.392	18.570	19.942	20.490
AGE	Ln	2.556	0.667	0.000	3.664	2.197	2.639	3.045
TANG	Ratio	0.411	0.243	0.040	0.880	0.188	0.380	0.630
GROW	Ratio	0.083	0.265	-0.573	1.478	-0.048	0.020	0.179
LIQUI	Ratio	1.337	1.634	0.192	11.203	0.584	0.999	1.505

Source: Annual report of sample companies

B. Relationship between leverage and profitability- manufacturing sample

As a measure of relationship, correlation analysis is used in analyzing the relationship among all the variables of interest. Table 3.9 shows the correlation coefficient among variables. Correlation analyses provide that SDA, LDA, DA and TANG are negatively significantly related to ROA. The related coefficients are -.258**, -.265**, -.365** and -.347** respectively. The TURN and SIZE are positively significantly related to ROA with correlation coefficient of .613** and .407** respectively. While for ROCE only LDA is significantly and negatively related with coefficients -.195* but TURN and GROW are positively significantly related with ROCE and the coefficients are .183*, .358** respectively.

As regard to the independent variables highest correlation coefficient is found between SDA and DA (corr =.934**). These two variables are individually used in the regression, thus it may not cause multicollinearity. Among other independent

variables, the correlation coefficients are found less than 0.50, hence indicating that there is the absence of multicollinearity among independent variables.

Table 3.9

Correlation coefficients of leverage and profitability variables- manufacturing sample (n=166)

Variables	ROA	ROCE	SDA	LDA	DA	TURN	SIZE	AGE	TANG	GROW	LIQU
ROA	1										
ROCE	.199*	1									
SDA	-.258**	-0.004	1								
LDA	-.265**	-.195*	-.274**	1							
DA	-.365**	-0.077	.934**	0.088	1						
TURN	.613**	.183*	-.272**	-.185*	-.350**	1					
SIZE	.407**	0.122	-.394**	0.048	-.390**	.175*	1				
AGE	0.143	0.077	.216**	-.399**	0.077	0.102	-0.029	1			
TANG	-.347**	-0.127	-.275**	.423**	-0.128	-.288**	.276**	-.488**	1		
GROW	0.039	.358**	-0.090	-0.013	-0.098	0.118	.167*	-0.002	-0.078	1	
LIQUI	0.129	-0.021	-.360**	.344**	-.245**	.170*	-0.139	0.117	-.204**	0.082	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The significant relationship of three leverage variables with ROA and LDA with ROCE indicate that capital structure affects negatively to the profitability. It can be asserted from the analysis that none of the independent variables are perfectly correlated or inversely related to each other. Each and every variable has some relationship with each other but these variables are free from severe multicollinearity problem.

C. Effect of leverage on profitability- manufacturing sample

Table 3.10 Panel A and Panel B reports the regression results on capital mix and profitability, while considering the effect of the assets turnover, firm size, age, tangibility, assets growth and liquidity in manufacturing samples. As evidenced from the model 2, long-term debt to total assets ratio (LDA) has negative and significant (1% level of significance) relationship with profitability (ROA), i.e., as a firm's long-term debt level increases its profitability is expected to decrease. Unlike all sample, insignificant coefficients are found for short-term leverage (SDA) and total leverage (DA). The result indicates that long-term leverage only significantly affects profitability (ROA) in manufacturing firms.

Assets turnover (TURN) and size (SIZE) have positive and significant coefficients in three model used for (ROA). These coefficients are significant at 1% level of significance. The results indicate that as assets turnover and firm size increase, the profitability also increases. While tangibility (TANG), and assets growth (GROW) have negative and significant coefficients in three models as shown in Table 3.10 Panel-A. The coefficients of tangibility (TANG) is significant at 1% level of significance but coefficients of growth (GROW) is significant at 5% level of significance. The results indicate that as tangibility (TANG) and growth (GROW) increase, the profitability decreases.

Age was found significant in model 2 only. The coefficient is negative (-0.024) and statistically significant at 5 percent level of significance. The result shows that firm's age affects negatively on profitability in Nepalese sample companies. It indicates that as firms' age increase, the profitability decreases.

Liquidity was also found significant in model 2 only. The coefficient is positive (0.011) and statistically significant at 5 percent level of significance. The result indicates that as liquidity increases firm's profitability also increases.

Table 3.10-Panel-A
Regression results of leverage and profitability-manufacturing sample

$ROA_{i,t} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (1)

$ROA_{i,t} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (2)

$ROA_{i,t} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (3)

Predictors	Dependent Variable: ROA (LEV =SDA)			Dependent Variable :ROA (LEV = LDA)			Dependent Variable: ROA (LEV = DA)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	-0.894	0.000		-0.950	0.000		-0.847	0.000	
LEV	-0.010	0.358	1.847	-0.080	**0.010**	1.798	-0.018	0.083	1.480
TURN	0.082	0.000	1.316	0.080	0.000	1.259	0.079	0.000	1.346
SIZE	0.051	0.000	1.480	0.054	0.000	1.269	0.049	0.000	1.433
AGE	-0.014	0.218	1.397	-0.024	0.031	1.492	-0.014	0.187	1.358
TANG	-0.203	0.000	1.802	-0.166	0.000	1.869	-0.203	0.000	1.709
GROW	-0.057	0.019	1.061	-0.059	0.014	1.062	-0.057	0.018	1.061
LIQUI	0.002	0.602	1.443	0.011	0.020	1.494	0.002	0.588	1.201
	R^2 = 0.583; Adj.R^2 = 0.565 F-value=31.619;F(sig) = 0.000			R^2 = 0.599; Adj.R^2 = 0.581 F-value=33.672;F(sig) = 0.000			R^2 = 0.589; Adj.R^2 = 0.571 F-value=32.365; F(sig) = 0.000		

**. Significant at the 0.01 level (2-tailed).

*. Significant at the 0.05 level (2-tailed).

R-square value explains about 58.3 percent, 59.9 percent and 58.9 percent of the variations in the dependent variable (ROA) in model-1, the model-2 and the model-3

respectively. VIF values in three models displayed in Table 3.10 Panel- A are less than 2 (i.e. VIF < 2). It indicates that the estimated regression equations are free of multicollinearity.

Table 3.10 Panel-B reports that no one of the leverage variable is found significant with profitability (ROCE). Assets growth (GROW) have positive and significant coefficients in three model used for profitability (ROCE). These coefficients are significant at 1% level of significance. The results indicate that Nepalese firms with assets growth should have high profitability. Other variables are found insignificant in three models used for ROCE.

Table 3.10-Panel-B
Regression results of leverage and profitability-manufacturing sample

$ROCE_{it} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (4)

$ROCE_{it} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (5)

$ROCE_{it} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (6)

Predictors	Dependent Variable: ROCE (LEV =SDA)			Dependent Variable :ROCE (LEV = LDA)			Dependent Variable: ROCE (LEV = DA)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	-1.346	0.400		-1.005	0.471		-0.893	0.571	
LEV	0.051	0.692	1.847	-0.614	0.083	1.798	-0.026	0.829	1.480
TURN	0.205	0.122	1.316	0.151	0.239	1.259	0.182	0.175	1.346
SIZE	0.064	0.431	1.480	0.059	0.431	1.269	0.046	0.566	1.433
AGE	0.046	0.712	1.397	-0.013	0.918	1.492	0.057	0.646	1.358
TANG	-0.277	0.479	1.802	-0.097	0.806	1.869	-0.329	0.388	1.709
GROW	1.227	0.000	1.061	1.218	0.000	1.062	1.228	0.000	1.061
LIQUI	-0.038	0.462	1.443	0.000	0.989	1.494	-0.052	0.277	1.201
	R^2 = 0.164; Adj.R^2 = 0.127 F-value =4.439; F(sig) = 0.000			R^2 = 0.179; Adj.R^2 = 0.143 F-value=4.933; F(sig) = 0.000			R^2 = 0.164; Adj.R^2 = 0.127 F-value= 4.420; F(sig) = 0.000		

***. Significant at the 0.01 level (2-tailed).*
**. Significant at the 0.05 level (2-tailed).*

R-square value explains about 16.4 percent, 17.9 percent and 16.4 percent of the variations in the dependent variable (ROCE) in model-1, the model-2 and the model-3 respectively. VIF values in three models displayed in Table 3.10 Panel- B are less than 2 (i.e. VIF < 2). The VIF results indicate that the estimated regression equations are free of multicollinearity.

3.4.4 Leverage and profitability-nonmanufacturing sample

A. Descriptive statistics of leverage and profitability-nonmanufacturing sample

The results in the Table 3.11 show a summary of the descriptive statistics for all the variables including dependent variables and independent variables. Dependent

variables are ROA and ROCE while independent variables are SDA, LDA and DA. To check whether turnover, size of the company, age of the company, tangibility, assets growth and liquidity affect the profitability variables (ROA and ROCE); TURN, SIZE, AGE, TANG, GROW and LIQUI variables were taken as other explanatory variables.

Descriptive statistics results show that the mean of the return on assets (ROA) for the listed hotel and trading companies in Nepal from the period 1998-2012 is 10.3 percent while the mean of the return on capital employed (ROCE) is 17.7 percent. These results show a better profitability during the sample period as compared to the companies in manufacturing industries.

Table 3.11
Descriptive statistics of profitability variables- nonmanufacturing sample (n=85)

Variables	Scale	Mean	Std. Dev.	Minimum	Maximum	Percentiles		
						25	50	75
ROA	Ln	0.103	0.117	-0.115	0.387	0.026	0.075	0.143
ROCE	Ratio	0.177	0.228	-0.220	0.950	0.040	0.110	0.220
SDA	Ratio	0.367	0.197	0.090	1.160	0.230	0.335	0.495
LDA	Ratio	0.372	0.487	0.000	2.960	0.073	0.220	0.598
DA	Ratio	0.739	0.507	0.280	4.110	0.543	0.635	0.873
TURN	Ratio	0.603	0.707	0.060	5.908	0.256	0.481	0.718
SIZE	Ln	20.558	1.162	18.069	22.331	20.311	20.802	21.203
AGE	Ln	3.098	0.689	0.693	3.807	2.639	3.401	3.555
TANG	Ratio	0.660	0.260	0.030	0.980	0.410	0.750	0.870
GROW	Ratio	0.198	1.080	-0.878	9.440	-0.061	0.084	0.202
LIQUI	Ratio	0.829	0.823	0.052	4.415	0.334	0.641	1.008

Source: Annual report of sample companies

The mean of the short term debt (SDA) is 36.7 percent of the total assets, mean of the long-term debt is 37.2 percent and mean of the total debt is 73.9 percent of the total assets during the sample period. This result shows that about 74 percent of the total assets of the Nepalese hotel and trading sample companies are financed by debt. This shows that Nepalese hotel and trading companies particularly operate with significant level of financial leverage. The ratio of short-term debt is about 37 percent of total assets while the ratio of long-term debt is 37 percent of total assets which shows that the hotel and trading sample companies equally use short-term and long-term debt to finance their assets.

B. Relationship between leverage and profitability - nonmanufacturing sample

Table 3.12 displayed matrix of pair-wise Pearson correlation of dependent variables and independent variables used in the study. The tabulated results indicate the positive and significant relationship between short-term leverage (SDA) and two measures of profitability (ROA & ROCE) while significant negative relation is found between long-term leverage (LDA) and both measures of profitability (ROA & ROCE). The negative but insignificant correlation coefficient is found between total leverage (DA) and measures of profitability (ROA & ROCE).

Table 3.12

Correlation coefficients of leverage and profitability variables– nonmanufacturing sample (n=85)

Variables	ROA	ROCE	SDA	LDA	DA	TURN	SIZE	AGE	TANG	GROW	LIQU
ROA	1										
ROCE	.943**	1									
SDA	.371**	.438**	1								
LDA	-.266*	-.396**	-0.113	1							
DA	-0.104	-0.202	.299**	.914**	1						
TURN	.294**	0.121	.474**	.396**	.572**	1					
SIZE	-.771**	-.720**	-.250*	0.149	0.042	-0.177	1				
AGE	.470**	.451**	.489**	-.534**	-.314**	.400**	-.283**	1			
TANG	-.463**	-.447**	-.429**	0.065	-0.111	-.608**	.220*	-.591**	1		
GROW	-0.014	-0.011	-0.143	0.025	-0.034	0.039	0.067	0.051	-.272*	1	
LIQUI	-0.067	-0.088	-.346**	0.146	-0.003	0.096	0.091	-0.186	-.378**	.373**	1

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

Further correlation analyses provide that TURN and AGE are positively significantly related to ROA with correlation coefficients .294** and .470** respectively. The SIZE and TANG are negatively significantly related to ROA with the correlation coefficient of -.771** and -.463** respectively. For ROCE the SIZE and TANG are negatively significant with correlation coefficients -.720** and -.447** respectively but AGE is positively significant with ROCE with correlation coefficient .451**.

In case of independent variables, highest correlation coefficient is found between LDA and DA (corr = .914**). These two variables are individually used in the regression, thus it may not cause multicollinearity. Among other independent variables, the correlation coefficients are found less than 0.61, hence indicating the absence of multicollinearity among independent variables.

C. Effect of leverage on profitability-nonmanufacturing sample

Pooled ordinary least squares regression method is used to analyze the relationship of capital structure with firm's profitability. The regression was run to point out the relationship between each of the capital structure measures (independent variables) and firm's profitability measures (dependent variables). Further, in regression equation, the other explanatory variables are added to check their effect on firm's profitability and results are presented in Table 3.13-Panel-A and Table 3.13-Panel-B.

Table 3.13-Panel-A
Regression results of leverage and profitability-nonmanufacturing sample

$ROA_{i,t} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (1)

$ROA_{i,t} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (2)

$ROA_{i,t} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (3)

Predictors	Dependent Variable: ROA (LEV =SDA)			Dependent Variable :ROA (LEV = LDA)			Dependent Variable: ROA (LEV = DA)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	1.591	0.000		1.670	0.000		1.713	0.000	
LEV	0.000	0.998	2.106	-0.060	0.043	3.875	-0.056	0.050	3.911
TURN	-0.010	0.460	1.754	0.020	0.313	3.763	0.021	0.303	4.101
SIZE	-0.068	0.000	1.117	-0.067	0.000	1.123	-0.067	0.000	1.116
AGE	0.010	0.441	2.233	-0.020	0.307	5.157	-0.019	0.346	4.986
TANG	-0.163	0.004	3.964	-0.168	0.001	3.391	-0.190	0.000	3.640
GROW	-0.003	0.696	1.233	0.000	0.899	1.237	-0.002	0.782	1.220
LIQUI	-0.010	0.243	2.433	-0.013	0.082	1.920	-0.018	0.036	2.322
	R^2 = 0.707; Adj.R^2 = 0.681 F-value=26.581;F(sig) = 0.000			R^2 = 0.723; Adj.R^2 = 0.697 F-value=28.650;F(sig) = 0.000			R^2 = 0.722; Adj.R^2 = 0.696 F-value=28.517; F(sig) = 0.000		

***. Significant at the 0.01 level (2-tailed).*

**. Significant at the 0.05 level (2-tailed).*

The LDA and DA variables used to represent leverage (capital structure) were found negative and significant at 5% level of significance. It indicates that increase in debt in capital structure cause to reduce profitability (ROA) in hotel and trading companies in Nepal. This negative relationship is explained by the high cost of debt and strong covenants attach to the use of debt. These are consistent with Ebaid (2009), Bokpin et al. (2010), Sheikh and Wang (2011). This result is contradictory to that of Abor (2007), where the author found a positive relationship between short-term debt and return on assets in small and medium enterprises because of the nature of industry in which they are operating and low level of interest rates.

Size (lnasset) has significant and negative relationship (but positive sign was expected) in all three models for profitability measured by ROA. It is significant at 1

percent level of significance in three models. The results indicate that as firm size increases, profitability (ROA) decreases. The different results have been observed for firm size as compared to manufacturing sample where firm size (lnasset) variable has positive signs in all three models.

Tangibility (TANG) also has significant and negative relationship (but positive sign was expected) in all three models for profitability measured by ROA. It indicates that firm with more tangible assets report lower profitability (ROA) in hotel and trading companies.

Table 3.13-Panel-B
Regression results of leverage and profitability- nonmanufacturing sample

$ROCE_{it} = \beta_0 + \beta_1 SDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (4)

$ROCE_{it} = \beta_0 + \beta_1 LDA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (5)

$ROCE_{it} = \beta_0 + \beta_1 DA_{i,t} + \beta_2 TURN_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 TANG_{i,t} + \beta_6 GROW_{i,t} + \beta_7 LIQUI_{i,t} + e_{i,t}$ (6)

Predictors	Dependent Variable: ROCE (LEV =SDA)			Dependent Variable :ROCE (LEV = LDA)			Dependent Variable: ROCE (LEV = DA)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	2.875	0.000		3.295	0.000		3.249	0.000	
LEV	0.241	0.016	2.106	-0.161	0.005	3.875	-0.076	0.178	3.911
TURN	-0.121	0.000	1.754	-0.027	0.471	3.763	-0.065	0.111	4.101
SIZE	-0.120	0.000	1.117	-0.118	0.000	1.123	-0.121	0.000	1.116
AGE	0.009	0.721	2.233	-0.075	0.053	5.157	-0.031	0.431	4.986
TANG	-0.407	0.000	3.964	-0.519	0.000	3.391	-0.543	0.000	3.640
GROW	-0.005	0.741	1.233	-0.003	0.801	1.237	-0.008	0.595	1.220
LIQUI	-0.015	0.378	2.433	-0.043	0.004	1.920	-0.045	0.008	2.322
	R^2 = 0.720; Adj.R^2 = 0.695 F-value=28.351;F(sig) = 0.000			R^2 = 0.728; Adj.R^2 = 0.703 F-value=29.444; F(sig) = 0.000			R^2 = 0.705; Adj.R^2 = 0.679 F-value=26.330;F(sig) = 0.000		

***. Significant at the 0.01 level (2-tailed).*
**. Significant at the 0.05 level (2-tailed).*

Liquidity was found significant in model 3 only. The coefficients is -0.018 (p-value = 0.036). The results are statistically significant at 5 percent level of significance. The negative signs of liquidity indicate that more liquid firms should have lower profitability. This result is different to that of manufacturing sample where liquidity was also found with positive and significant coefficient in model 2 only.

Assets turnover, age and assets growth were found insignificant in three models used. It indicates that these three variables have no significant effect on hotel and trading companies' profitability.

R-square value explains about 70.7 percent, 72.3 percent and 72.2 percent of the variations in the dependent variable (ROA) in model-1, the model-2 and the model-3 respectively. VIF values in three models displayed in Table 3.13 Panel A are less than 6 (i.e. VIF < 6). It indicates that the estimated regression equations are free of multicollinearity.

Table 3.13 Panel-B shows that SDA has significantly positive relationship with the profitability of the firm measured by ROCE. It indicates that as short-term debt increases the firm's profitability (ROCE) also will increase due to short-term financing obtained by the hotel and trading companies on reasonable rates. But LDA is significantly and negatively related with the firm's profitability. This implies that increase in the long-term debt position is associated with a decrease in profitability. This is explained by the fact that long-term debts are relatively more expensive, and therefore employing high proportions of them could lead to low profitability. The results support earlier findings by Miller (1977), Fame and French (1998), Graham (2000) and booth *et al.* (2001). The total leverage (DA) seems insignificant with profitability (ROCE).

Assets turnover (TURN) was found significant in model 4 only. The coefficients is -0.121 (p-value = 0.000). The results are statistically significant at 1 percent level of significance. It indicates that profitability by capital employed is inversely and significantly influenced by asset turnover of hotel and trading companies.

Size (lnasset) has significant and negative relationship (but positive sign was expected) in all three models for profitability measured by ROCE. It is significant at 1 percent level of significance in all three models. The results indicate that as firm size increases, profitability (ROCE) decreases. The different results have been observed for firm size as compared to manufacturing sample where firm size (lnasset) variable has positive signs in all three models.

Tangibility (TANG) also has significant and negative relationship (but positive sign was expected) in all three models for profitability measured by ROCE. It indicates that firm with more tangible assets report lower profitability (ROA) in hotel and trading companies.

Liquidity has been found to be significant in only model 5 and model 6. The coefficients are -0.043 (p-value = 0.004) and -0.045 (p-value = 0.008). The results are statistically significant at 1 percent level of significance. The negative signs of liquidity indicate that more liquid firms should have lower profitability. This result is different to that of manufacturing sample where liquidity was also found with positive and significant coefficient.

Age and assets growth were found insignificant in three models used. It indicates that these two variables have no significant effect on hotel and trading companies' profitability.

R-square value explains about 72.0 percent, 72.8 percent and 70.5 percent of the variations in the dependent variable (ROA) in model-1, the model-2 and the model-3 respectively. VIF values in three models displayed in Table 3.13 Panel B are less than 6 (i.e. VIF < 6). It indicates that the estimated regression equations are free of multicollinearity.

3.5 Discussion

This section discusses the effect of leverage on profitability. Extensive amount of related empirical literature was reviewed to identify the proxies and measurements for capital structure and firm's profitability. In this study, return on asset (ROA) and return on capital employed (ROCE) have been used as the measures for firm profitability. Capital structure is represented by short term debt to total assets (SDA), long term debt to total assets (LDA) and total debt to total assets (DA) is used as independent variable along with other six independent variables namely: turnover, size, age, tangibility, growth, and liquidity. The summary view of the test results of effect of leverage on profitability and priori expectation are exhibited in Table 3.14.

The study finds that capital structure has significant negative relationship with profitability (ROA) in all capital structure indicators while only long-term debt (leverage) has significant negative impact on profitability as measured by ROCE. Thus capital structure is found to be the major determinant of firm's profitability. This finding is consistent with the findings of Velnampy & Niresh (2012), Pratheepkanth (2011), Azhagaiah and Gavoury (2011), Onaolapo and Kajola (2010), Obert and Olawale (2010), Khalid (2010), Morri and Berretta (2008), Zeitun and Tian (2007),

Haung and Song (2006), Dimitrov and Jain (2005), Cai and Zhang (2005), Korteweg (2004), Strebulaev (2003), Nissim and Penman (2003), Dimitrov and Jain (2003), O'Brien and Peters (2002), Booth *et al.* (2001), Bevan and Danbolt (2001), Michaelas *et al.* (1999), Majumdar and Chhibber (1999), Pushner (1995), Myers and Majluf (1984) and Hall *et al.* (1967). These studies have reported significant negative impact of capital structure on profitability.

Table 3.14
Test results of effect of leverage on profitability (ROA) and priori expectation

Variables	Expected relationship	Test results for Nepalese firms (Dependent Variable=ROA)		
		Model-1 (LEV = SDA)	Model-2 (LEV = LDA)	Model-3 (LEV = DA)
Leverage (SDA, LDA, DA)	-	-	-	-
Turnover (TURN)	+	+	+	+
Size (SIZE)	+	NS	+	NS
Reputation (AGE)	+	+	+	+
Tangibility (TANG)	+	-	NS	-
Growth (GROW)	+	NS	NS	NS
Liquidity (LIQUI)	+	-	NS	NS

+ indicates positive
- indicates negative
NS= Not Significant

Leverage level is significantly associated with ROA, which indicates that capital structure has immediate or long-term effect on firm's profitability. Moreover, negative coefficient of leverage with profitability (ROA) implies that excessive use of debt level in the firm reduces its profitability. However, this finding is inconsistent with Salawu, Asaolu and Yinusa (2012) for long-term debt and Rehman, Fatima, and Ahmad (2012) for short-term debt. Moreover, this finding is also inconsistent with Rub (2012), Singapurwoko and Wahid (2011), Nimalathasan & Brabete (2010), Ananiadis and Varsakelis (2008), Kyerboach-Coleman (2007), Abor (2005), Berger and Patti (2002, Berger (2002), Wald (1999), Roden and Lewellen (1995), Dammon and Senbet (1988) and Bhandari (1988). These studies point out that capital structure and profitability should have positive relationship.

The regression result revels that in manufacturing sample, profitability (ROA) is significantly negatively affected by the long-term leverage (LDA) only. Whereas none leverage variable found significant in case profitability is measured by ROCE. In case where profitability is measured by ROCE, long-term leverage (LDA) and total leverage (DA) have been found as significant variable affecting profitability (ROA). However both leverage measures have significant negative coefficient which is as per priori expectation. In case where profitability is measured by ROCE, short term leverage affects positively to profitability but long-term leverage negatively affects profitability. Positive effect of short-term leverage to profitability is contradictory to priori expectation sign but confirms findings of Mesquita and Lara (2003) for short-term debt. This suggest that short-term debt tends to be less expensive and therefore increasing short-term debt with a relatively low interest rate will lead to an increase in profit levels. However, this finding has contradicted the result arrived at by Saeedi and Mahmoodi (2011) who have found that ROE has no significant effect on STD, LTD and TD.

In case where profitability is measured by ROCE, in non-manufacturing sample, the negative significant relationship between long-term debts with ROCE confirms priori expectation and indicates that increase in long-term debt proportion in the capital structure cause to reduce return on capital employed (ROCE). This finding is inconsistent with the findings of Philips and Sipahioglu (2004) and Grossman and Hart (1986), who indicate that higher levels of debt in the firm's capital structure will be directly, associated with higher performance levels. Contrary to these empirical evidences, findings of this study indicates that lower level of long term debt in the capital structure can increase the profitability of the firm. One possible cause of such result may be that long-term debt capital could not be properly utilized by Nepalese firms and it only became regular interest burden for firms.

In addition to capital structure, assets turn over, size, age, tangibility, and liquidity were found to the significant variables that affect profitability. Assets turnover, size and age are found positively related to profitability indicating that longer aged, large size, with high assets turnover Nepalese firm can generate more profits as compared to newly established, small size and low asst turnover firm. Whereas, tangibility and liquidity were found negatively related to profitability indicating that Nepalese firm

with higher liquidity position and enough tangible assets generate low profitability position.

As opposed to priori hypothesis, negative relationship is found between tangibility and profitability. The result is at odds with the finding of Majumdar and Chhibber (1999) and Margaritis and Psillaki (2007) who have found a positive relationship. The negative relation may be justified in the sense that the tangible assets of Nepalese enterprises are not properly utilized in generating sufficient revenue. Thus, the possible cause of negative coefficient of tangibility may be that the higher level of tangible assets can turn out a high repair & maintenance cost as well as depreciation expenses for firms consequently firms' profitability could be reduced. The negative relationship between tangibility and profitability has been confirmed in number of studies like Rao *et al.* (2007), Zeitun and Tian (2007), Weill (2008) and Nunes *et al.* (2009).

The relationship between liquidity and profitability is negative but statistically significant in case of model -1. The result is contradictory to priori hypothesis but similar to findings of Adams and Buckle (2003), where they obtain a negative and statistically significant relationship between liquidity and profitability for firms in Bermuda. However, liquidity does not appear to be more relevant in explaining the profitability of Nepalese enterprises because it shows insignificant coefficient for model-2 and model-3. The possible restrictive effect of liquidity on profitability may be the consequence of enterprises' investment in unprofitable projects. It also seems that insufficiently relevant to greater liquidity in Nepalese enterprises to mean diminished profitability.

Growth has an insignificant relationship to profitability. So it rejects the hypothesis that there is a significant positive relationship between profitability and growth. Greiner (1972) concludes that the effect of company growth on profitability will dependent on the owners' ability to motivate employees. In Nepalese enterprises, growth effect of employee motivation may be in minimal magnitude resulting from the no change in the usual working relationships, thus growth could not increase firm profitability. The insignificant relationship detected between growth and profitability in Nepalese enterprises corroborate the empirical evidence of previous studies, since

Roper (1999), in the context of Irish companies, and Gschwandtner (2005), for American companies, found statistically insignificant relationships between company growth and profitability. Moreover, Markman and Gartner (2002) have concluded that there is no relationship between growth and profitability. These findings support that growth could not increase firm profitability in Nepalese context.

This study therefore suggests that firm which concern for profitability (ROA, ROCE) should use lower level of debt since the level of debt does affect the firms' ROE and ROCE negatively. All in all, this study gives a better picture in showing the importance of capital structure in influencing firm operating profitability (ROA, ROCE) from firm's perspective.

CHAPTER IV

EFFECTS OF LEVERAGE ON COST OF CAPITAL IN NEPALESE ENTERPRISES

4.1 Introduction

The influence of leverage on the cost of a firm's capital has been the subject of considerable interest in theoretical and empirical study. The proper use of debt financing is one of the major decision areas of corporate financial management. The effect of change in financial leverage has, or can be assumed to have, on a company's cost of capital. Modigliani and Miller (1958) conclude that apart from a tax effect a company's cost of capital is independent of the degree of leverage in its financial structure. David (1963) criticizes the model on the ground that the assumptions used by M-M (1958, 1963) are unrealistic. Solomon (1963) argues that the cost of debt does not always remain constant. When the leverage level of the firm exceeds the certain accepted level, the probability of default in interest payments increases- thus raising the cost of debt. Eventually, the cost of capital may, of course, be affected by the capital structure of the firms.

The cost of capital has been a popular issue in corporate finance, yet little is known about the cost of capital on a broader menu of emerging markets (Barry et al., 1998). Yet, to date, the reported empirical evidence on the subject is so inclusive that it offers little in terms of either resolving conflicting theoretical propositions or aiding the decision makers. Further, from a regulatory point of view, it is useful to have some idea of how capital costs change as the degree of leverage is altered. Companies must consider the cost of financing they receive in the form of equity or debt if they are to manage their finances better. A capital structure with reasonable proportions of debt and equity capital, which can maximize the shareholders' wealth to a limit possible and simultaneously can minimize the firm's cost of capital as a whole, is called optimal structure (Khadka, 2006). Debt and equity are the two major sources through which business organizations, especially corporations, raise funds required to meet their operational needs. A proper balance is necessary between debt and equity to ensure a trade-off between risk and return to the shareholders. The firms have to pay a fixed charge at every period irrespective to the firm's earnings. Equity provides

ownership of the corporation to investors. Being owners, shareholders do have voting right and participate in company's management and control the company affairs. However, shareholders cannot claim for dividend for any period until and unless it is decided and declared by the management.

Finance theory provides helpful insights into capital structure issues, but the theory leaves many key questions unresolved. Capital structure decisions must be made on the basis of informed judgment and market data, not by mathematical formulas. Several theories, all of them rooted in the classic propositions set forth by Modigliani and Miller (MM) in 1958 and 1963, have been proposed to explain the effect of leverage on the cost of equity. MM postulate that the cost of equity increases with the use of debt in a precise manner. The cost of equity to a firm that uses debt equals the cost of equity to an unlevered firm plus a risk premium that increases linearly with the debt-to-equity ratio. However, the MM model is based on some simplifying assumptions that do not hold in the real world, so other finance theorists, including Miller, have modified the original MM model. All the theories agree that the cost of equity increases as a firm uses more and more debt. However, the exact specification of the relationship depends on the underlying assumptions, and no one knows which set of assumptions is most correct, or even if any of the assumption sets is good enough for practical applications.

The cost of capital is concerned with what a firm has to pay for the capital: the debt, preferred stock, retained earnings, and common stock that it uses to finance new investments. It can also be thought of as the return required by investors in the firm's securities. It can also be thought of as the minimum rate of return required on new investments undertaken by the firm. As such, the firm's cost of capital is determined in the capital markets and is closely related to the degree of risk associated with new investments, existing assets, and the firm's capital structure. In general, the greater the risk of a firm as perceived by investors, the greater the return investors will require and the greater will be the cost of capital.

Empirical tests of the relationships between capital costs and leverage have been reported by Barges (1963), Modigliani and Miller (1958) and Weston (1963). Investigations of a problem of this nature involve several difficulties which are of

both a conceptual and statistical nature. The cost of capital concept occupies a pivotal place in the theory of financial management as a criterion of capital allocation. This concept has received considerable attention both from theorists and practitioners in recent years. In spite of the voluminous literature on the cost of capital, the question of the effect of capital structure on the cost of capital still remains unresolved (Pandey, 1991).

The capital structure decision has been less emphasized by Nepalese companies. Most of the companies have debt capital relatively very higher than equity capital. Consequently, most of them are operating at losses to the extent that payment of interest on loans has been serious issues. Most of the losses are after charging interest on loan (Shrestha, 1993). Thus without the proper combination of capital structure components in financing of the firm, it is impossible to minimize the cost of capital. Determining the cost of capital is a major problem in Nepalese companies. It is in fact an important measuring variable in the financing process of various corporations of Nepal before taking intelligent decision to borrow additional capital for expanding the volume of operation. Management is not able to analyze the cost of capital properly in their firm for investment decision-making (Shrestha, 1985).

Empirical studies on leverage and cost of capital have, thus far, yielded ambiguous results because of biases in both measurement and concept. The major empirical studies on the leverage and cost of capital question have been summarized in this part of the study and an effort is exerted to offer what are hoped to be more fruitful alternatives in determining the relationships between leverage and the cost of capital. The cost of capital has been a popular issue in corporate finance for a long-time, yet insufficient attention has been paid to the factors that drive the cost of capital in Nepal. Moreover, effect of leverage on cost of capital is unresolved issue in Nepal. Specifically this study has been carried out to evaluate the effect of leverage on cost of capital of selected non-financial companies in Nepal that are listed in NEPSE.

4.2 Empirical evidence on capital structure and cost of capital

This part of the study provides a summary review of the literature on the subject and discussed the conclusion of the major studies related to the impact of leverage on the

cost of capital. Major studies related to capital structure decisions and firm's costs of capital have been organized and summarized into three parts:

I. Review of major literature before 1990

II. Review of major literature during 1990s to date.

III. Concluding remarks

I. Review of major literature before 1990

The summary review of the major empirical studies related to leverage and cost of capital before 1990 have been displayed in Table 4.1. Barges (1962) has analyzed the effect of capital structure on the cost of capital. The study suggests that stock yields do not increase significantly when the amount of debt employed is moderate. The hypothesized average-cost relation is tested with the entire railroad sample and five relatively homogeneous sub-samples. The results show significant correlation between average cost and financial structure and suggest that the over-all cost of capital of a firm can be reduced through the use of debt funds.

Solomon (1963) has analyzed the effect that a change in financial leverage has on a company's cost of capital. The author concluded that a company's cost of capital is independent of its financial structure is not valid. As far as the leverage effect alone is concerned, there exists a clearly definable optimum position-namely, the point at which the marginal cost of more debt is equal to, or greater than, a company's average cost of capital. The study points out that cost of equity capital fall as leverage is increased and hence no basis for assuming that cost of capital can remain constant as leverage is increased through the use of debt issues which involve a marginal cost higher than cost of capital.

Baxter (1967) reports that the risks associated with excessive leverage will likely increase the cost of capital of the firm. The effect of the risk of ruin is not likely to be linear with the reliance on debt. When leverage is very low, an increase in the reliance on debt is not likely to exert a significant effect on the probability of bankruptcy. When there is considerable debt in the capital structure, however, any increase in leverage is likely to have a much greater effect on the cost of capital. The risk of ruin thus becomes increasingly important as the degree of financial leverage increases. Moreover, the ability of the business firm to tolerate leverage will depend on the

variance of net operating earnings. Since businesses with relatively stable income streams (such as utilities) are less subject to the possibility of ruin, they may find it desirable to rely relatively heavily on debt financing. Firms with risky income streams, on the other hand, are less able to assume fixed charges in the form of debt interest and may well find that the average cost of capital begins to increase with leverage even when reliance on debt is moderate. The existence of corporate tax, which treats interest as a deductible expense, suggests that leverage tends to reduce the cost of capital to a firm. When reliance on debt is small, the tax affect is likely to dominate, but as leverage increases the risk of ruin becomes more important. The author asserts that when the restrictive assumptions of Modigliani and Miller are relaxed in accordance with existing institutions, the result is the traditional cost of capital curve, declining at low amounts of debt but rising where leverage becomes substantial.

Table 4.1
Major studies related to leverage and cost of capital before 1990

Study	Major finding
Barges (1962)	Significant correlation between average cost and financial structure.
Solomon (1963)	Cost of equity capital fall as leverage is increased.
Baxter (1967)	Cost of capital curve declining at low amounts of debt but rising where leverage becomes substantial.
Brigham and Gordon (1968)	Cost of capital depends on how the capital is financed, and the value of a corporation's stock depends on its financing policy.
Shahar (1968)	Cost of capital is constant along the range of efficient capital structure, and rises along the range of inefficient capital structure.
Robichek, Higgins and Kinsman (1973)	Statistically significant parameters were found measuring the influence of leverage on the cost of equity capital.
Chakraborty & Sen (1975)	Computation of the cost of equity capital alone is required - not an average cost of capital.
Stanley (1981)	None presents evidence indicating that cost of equity capital is higher for the multinational than for the purely domestic firm, ceteris paribus.
Brigham, Gapenski and Aberwald (1986)	A one percentage point change in the debt ratio causes, on average, a change of about 12 basis points in the cost of equity. Overall rate of return is not affected significantly by capital structure changes.

Brigham and Gordon (1968) have used book values for debt and equity in measuring the leverage rate. They point out that the return investors require on a share

is an increasing function of the corporation's retention rate. The conclusions that follow from the data may be described as follows. First, the rate of return investors require on a share increases with the corporation's retention rate. Second, the rate of return investors require on a share increases with the corporation's leverage rate, but the increase is smaller than would be true if investors were indifferent between leverage on personal and corporate account. They conclude that cost of capital depends on how the capital is financed, and the value of a corporation's stock depends on its financing policy.

Shahar (1968) concludes that in a perfect capital market where the interest rate is constant any capital structure is efficient and that the cost of capital is therefore constant. When the firm's borrowing rate rises and the investor's rate is constant, the range of efficient capital structure is limited. The highest efficient financial leverage is deter-mined where the firm's marginal borrowing rate equals the investor's rate. The cost of capital is therefore constant along the range of efficient capital structure, and rises along the range of inefficient capital structure. For other interest-rate structures, different ranges of efficient capital structure are deduced, affecting the shape of the cost-of-capital curve.

Robichek, Higgins and Kinsman (1973) have examined empirically the effect of leverage on the cost of equity capital for electric utility firms. Statistically significant parameters have been found measuring the influence of leverage on the cost of equity capital. These findings are of considerable practical importance, but they neither support nor reject any specific theoretical propositions regarding the effect of leverage on the cost of capital. Specifically, they report on the observed impact of flow-through on the measured cost of equity capital and on the problem of estimating the risk premium in the absence of leverage. Their results provide an initial basis for quantifying the influence of such factors as leverage and flow-through on the cost of equity capital for electric utility firms. Questions can and should be raised regarding the assumptions made in this study and the various measures of the cost of equity capital that were adopted.

Chakraborty & Sen (1975) have examined the capital structure and cost of capital in the Indian context. They assert that a project will be accepted if only it equals or

exceeds the E/P ratio. They point that computation of average cost of capital is unnecessary. They conclude that computation of the cost of equity capital alone is required, not an average cost of capital.

Stanley (1981) has reviewed recent developments in models dealing with capital structure and cost of capital for the multinational firm. The author points out that the subject is more complex for the multinational firm than for the domestic firm because of the influence of such factors as international diversification of risk, foreign exchange risk, inconvertibility risk, subsidiary capital structures, tax differentials, and multiple market environments. The author further asserts that several studies of equity pricing employing an international extension of the capital asset pricing model indicate that the common stock of the multinational firm is priced so as to reflect international diversification of risk. The domestic firm, if it goes multinational, can do so without adverse effect upon its cost of equity; indeed, it may expect a reduction in its cost of equity, ceteris paribus.

Brigham, Gapenski and Aberwald (1986) have concluded that a one percentage point change in the debt ratio causes, on average, a change of about 12 basis points in the cost of equity. They have also found that changes in the costs of debt and equity are offset by changes in the weights used to calculate the overall rate of return. As a result, the overall rate of return is not affected significantly by capital structure changes. Their major conclusion is that capital structure decisions, within the range over which most utilities operate, have negligible effects on revenue requirements. Operating decisions, on the other hand, can and do have major effects. Therefore, capital structure decisions should be focused on insuring that financial constraints do not hinder operations.

II. Review of major literature during 1990s to date.

The major findings of the some empirical studies related to leverage and cost of capital during 1990s have been depicted in Table 4.2. Zimmer and McCauley (1991) estimated the cost of equity for 34 international banks belonging to six countries over the period 1984-1990. Return on equity was used as a proxy for estimating cost of equity. The study has found significant difference in the cost of equity for banks across countries. The US, UK and Canadian banks have cost of equity of around 10

percent, German and Swiss banks with cost of equity of five percent to seven percent, and Japanese banks with cost of equity of around three percent. They argue that banks with high cost of capital find it difficult to compete in low margin business. Banks with low capital costs have gained market share in US wholesale market whereas banks with high cost of capital experienced a fall in the market share.

Dhankar and Boora (1996) have found that change in capital structure and cost of capital is found to be negatively related, as 81 percent of the companies show negative relationship. Thus, supporting the theory that cost of capital decreases with increase in debt level because cost of debt is less than that of equity and interest payments are tax exempted. Furthermore, since the cost of capital is measured using historical data, the weighted average cost of capital is bound to go down with increasing debt, other things being equal. But the relationship is not statistically significant. It means that, in general, change in capital structure is not accompanied by proportionate change in cost of capital.

Fama and French (1996) argue that beta alone does not suffice to explain the changes in the expected return. Other variables like price earnings ratio, cash flow price ratio, past sales growth etc. considerably explain the future return. Empirically CAPM may fail due to bad proxies for market portfolio. So the inefficient proxies for expected return and market portfolio could actually undermine the application of CAPM.

Fama and French (1997) argue that estimates of cost of equity based on CAPM are alarmingly imprecise. The study reports that standard errors of more than three percent per year are typical in the case of CAPM. The cost of equity estimates of individual firms and projects are even more imprecise. The study argues that this is mainly due to uncertainty about true factor risk premiums and imprecise estimates of the loading of industries on the risk factors.

Bruner *et al.* (1998) have made a survey and synthesis of the best practices in estimating cost of equity capital through the survey of leading corporations and financial advisors. Regarding use of CAPM to estimate cost of equity, the authors have found substantial disagreements in the choice of risk free rate of return, beta estimates and equity market risk premium. They argue that choice of different risk

Table 4.2
Major studies related to leverage and cost of capital during 1990s to date

Study	Major finding
Zimmer and McCauley (1991	Significant difference in the cost of equity for banks across countries. Banks with high cost of capital found it difficult in competing in low margin business.
Dhankar and Boora (1996)	Change in capital structure is not accompanied by proportionate change in cost of capital
Fama and French (1996)	Inefficient proxies for expected return and market portfolio could actually undermine the application of CAPM.
Fama and French (1997)	Estimates of cost of equity based on CAPM are alarmingly imprecise. Cost of equity estimates of individual firms and projects are even more imprecise.
Bruner *et.al.* (1998)	Choice of different risk free rates can significantly affect the cost of equity estimates. CAPM is the preferred model for estimating cost of equity in practice.
Ward (1999)	Two final issues are considered: how the cost of capital can be used to appraise projects and how it can be used to consider projects.
Chisari, Pardina and Rossi (2000)	Use an adopted version of the CAPM for calculating the opportunity cost of equity, in such a way as to bear the country risk in mind.
Maccario *et.al.* (2002)	Cost of equity had strong relation with booth micro economic variables (Tier I capital, growth rate of loan losses, expected growth tare in earnings, and payout ratio) and macro economic variables (Real long term interest rates, market premium and GDP growth rate).
Harris *et.al*. (2003)	Domestic CAPM with ex ante expected return provided better fit than with global CAPM.
Fama and French (2004)	High cost of equity estimates for high beta stocks and too low, to low beta stocks relative to historical average returns.
Singh and Nejadmalayeri (2004)	Internationally diversified firms support higher level of debt financing that directly results in reduction of overall cost of capital despite higher equity risk.
Barnes and Lopez (2006)	Cost of equity could be reasonably estimated by using simple CAPM.
Dhaliwal, Heitzman & Li (2006)	Linkage between capital structure and the cost of equity is affected by taxes.
Khadka (2006)	Besides leverage; size and dividend payout ratio are other important variables that affect the cost of capital in Nepalese context.
King (2009)	Highlighted the difficulty of estimating expected returns using CAPM which showed wide variation across banks.

free rates can significantly affect the cost of equity estimates. As far as beta estimation is concerned, finance theory states that it is a forward looking measure. But in practice it is estimated largely based on historical data. Selection of time period for estimation also affects the final outcome. Increasing the time period for estimation increases the statistical reliability but may include irrelevant past information. Choice of the market index is also another contentious issue as beta providers use a verity of market indices as market portfolio proxy. Finally, equity market risk premium is calculated by extrapolating the historical returns into future. Both value and method of calculating equity market premium for estimating cost of equity differed considerably. Finally, authors argued that CAPM is the preferred model for estimating cost of equity in practice.

Ward (1999) has introduced the ways of estimating the cost of capital. It briefly reviews the main theories of capital structure before explaining how the use of fixed-interest debt finance might affect the cost of capital. It then considers ways of estimating the cost of equity and finally brings results together. Two final issues are considered: how the cost of capital can be used to appraise projects like the ones the firm is already undertaking; and how it can be used to consider projects that lie outside the normal range of business activities of the firm.

Chisari, Pardina and Rossi (2000) have analyzed the components of the formula for the cost of capital and suggested to use arithmetic returns (means). They report that in regulatory practice in Argentina, the norm is to use an adopted version of the CAPM for calculating the opportunity cost of equity, in such a way as to bear the country risk in mind. They further report that beta must be calculated in relation to the same index used for estimating the market's average risk premium.

Maccario *et al.* (2002) have examined the cost of equity for major banks of G 10 countries. They use earnings forecasts to estimate the cost of equity for major banks over 1993-2001. They discover that estimated average cost of equity has declined during the study period. They also discover that difference in the cost of equity for major banks have declined especially in the last five years of the study period. Cost of equity had strong relation with both micro economic variables (Tier I capital, growth rate of loan losses, expected growth rate in earnings, and payout ratio) and macro

economic variables (Real long term interest rates, market premium and GDP growth rate).

Harris *et al.* (2003) have estimated the ex-ante cost of equity for S&P 500 firms to make a choice between global and domestic CAPM. They have estimated ex-ante returns for S&P 500 firms for period between1983-1998. The study reveals that domestic CAPM with ex-ante expected return provides better fit than with global CAPM. The finding is surprising, given the integration of capital markets around the world.

Fama and French (2004) have highlighted the outcome of using CAPM used to estimate cost of equity. They argue that the relation between average return and average beta is flatter than predicted by the Sharpe and Lintner version of CAPM. This leads to too high cost of equity estimates for high beta stocks and too low, to low beta stocks relative to historical average returns.

Singh and Nejadmalayeri (2004) have examined the relationship among international diversification, financial structure, and their individual and interactive implications for the combined debt and equity cost of capital for a sample of French corporation. They report that the degree of international diversification positively associates with higher total and long-term debt ratios. The evidence suggests a non-linear inverted U-shape relationship between the degree of international diversification and short term debt financing. They also find that internationally diversified firms support higher level of debt financing that directly results in reduction of overall cost of capital despite higher equity risk. More significantly, they have found that even after controlling for the effects of the degree and composition of debt financing, equity risk, firm size, managerial agency costs, and asset structure; higher degree of international diversification results in lower overall-combined debt and equity-cost of capital.

Barnes and Lopez (2006) have examined several cost of equity estimates based on the Capital Asset Pricing Model (CAPM) and compared them using econometric and materiality criteria. The authors have found that cost of equity could be reasonably

estimated by using simple CAPM. They do not find compelling evidences to extend the model to include factors like: firm leverage, business concentration etc.

Dhaliwal, Heitzman & Li (2006) have examined the associations among leverage, corporate and personal taxes, and the firm's implied cost of equity capital. They predict that the cost of equity capital can be expressed as a function of leverage and corporate and investor level taxes. This expression is indicative of the fact that the cost of equity is increasing in leverage, but that corporate taxes mitigate this leverage related risk premium, while the personal tax disadvantage of debt increases the premium. They empirically test these predictions using implied cost of equity estimates and proxies for the firm's corporate tax rate and the personal tax disadvantage of debt. They conclude that the equity risk premium associated with leverage is decreasing in the corporate tax benefit from debt. Overall, the results provide initial evidence that the linkage between capital structure and the cost of equity is affected by taxes. They have also found some evidence that the equity risk premium associated with leverage is increasing in the personal tax penalty associated with debt.

Khadka (2006) has tested the relationship between leverage and cost of capital in the context of Nepalese capital markets. The author asserts that the leverage may not be regarded as contributing variable to the cost of capital function for Nepalese firms. The relationship between the cost of equity and leverage is strongly negative. The author concludes that besides leverage; size and dividend payout ratio are other important variables that affect the cost of capital in Nepalese context.

King (2009) has examined the real cost of equity estimates for banks in six counties for 1990-2009 period. The study is based on single factor Capital Asset Pricing Model (CAPM). Empirical evidence shows that real cost of equity has declined during 1990-2005 period whereas increased from 2006 onwards. The study also highlights the difficulty in estimating expected returns by using CAPM which shows wide variation across banks.

III. Concluding remarks

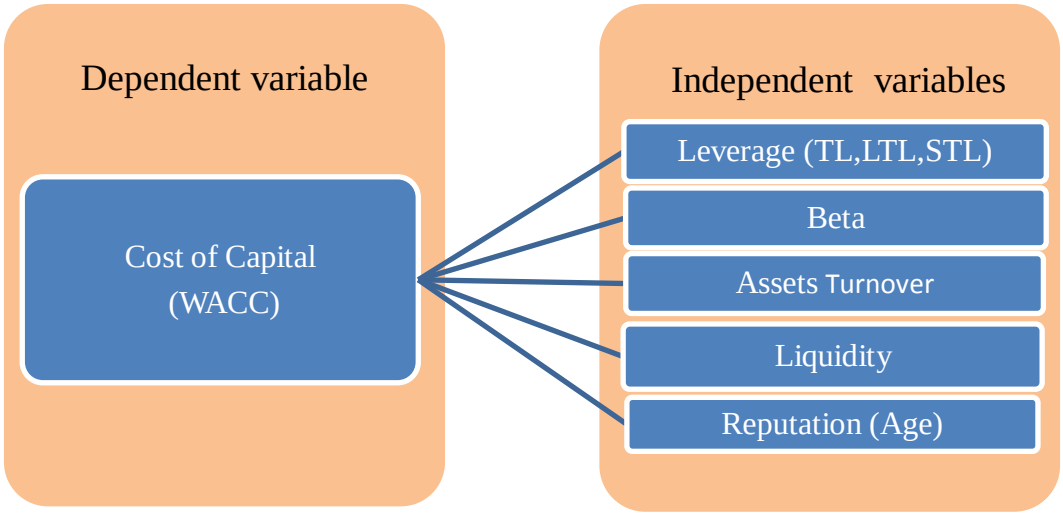
The capital structure concept has been the subject of controversy since the publication of the two prominent financial researchers, Franco Modigliani and Merton Miller's (MM's) classic paper in 1958. MM (1958) prove that, under a very restrictive set of assumptions, a firm's overall cost of capital, and therefore its value, is independent of capital structure. However, the traditional belief is that the cost of capital is the function of capital structure.

Sharma and Rao (1969), Pandey (1991) have tested the validity of the MM hypothesis in different contexts. The authors find that the cost of capital and capital structures are relating and thereby supported the traditional view. Singh and Nejadmalayeri (2004) point out that higher equity risk in terms of beta is positively related to the overall cost of capital. Further the authors conclude that firms with higher asset turnover ratio have lower cost of capital. Khadka (2006) asserts that there is insignificant relationship between cost of capital and liquidity in Nepalese context. Ortiz-Molina and Phillips (2010) have found that assets liquidity affects firms' cost of capital. Further, the older firm can be expected to obtain fund in favorable terms than younger firm. Thus, age variable is expected to have influence on the cost of raising fund.

In the Nepalese context, it is the subject of curiosity for the researchers, academicians, and other interested parties such as business people, investors, and practitioners to know whether the theories of capital structure and cost of capital are applying to under-developed economy. Therefore, this study attempts to test the empirical relationship between capital structures and the cost of capital in the context of underdeveloped economy such as Nepal by using the data of Nepalese listed companies. Specifically, this study concentrates on examining relationship between the firm's overall cost of capital and its capital structure decisions along with beta, assets turnover, liquidity and reputation (age) in Nepalese context.

A conceptual model has been developed after reviewing the related empirical works. This model specifies that the cost of capital is a function of capital structure, beta, assets turnover, liquidity, and age. The finalized conceptual framework has been depicted in Figure 4.1.

Figure 4.1
Conceptual framework of capital structure and cost of capital



4.3 Research methodology

I. Selection of enterprises

This study has been carried out to evaluate the relationship between capital structure and cost of capital of selected non-financial companies in Nepal that are listed in Nepal Stock Exchange. For the purpose of this study, initially as in other issues, nineteen (19) non-financial listed companies were considered to include as sample.

Table 4.3
Enterprises selected for the study

Ser. No	Name of the Company	Nature of Industry	Period Covered (Year in AD)	Observations
1	Bishal Bazaar Co Ltd. (BBCL)	Trading	2003-2011	9
2	Bottles Nepal (Tarai) Limited (BNTL)	Manufacturing	2003-2012	10
3	Bottlers Nepal Limited (Balaju)- (BNL)	Manufacturing	2003-2012	10
4	Nepal Lube Oil Limited (NLOL)	Manufacturing	2003-2011	9
5	Oriental Hotels Ltd. (OHL)	Hotel	2003-2012	10
6	Salt Trading Corporation (STC)	Trading	2003-2011	9
7	Soaltee Hotel Ltd. (SHL)	Hotel	2003-2012	10
8	Taragaun Regency Hotel Ltd. (TRHL)	Hotel	2003-2011	9
9	Unilever Nepal Limited (UNL)	Manufacturing	2003-2012	10
	Total			86

Additionally, there were some limited data items relating to the stock market, particularly frequently traded share price and market capitalization. At least monthly close share price (actively traded) data were required to determine the yearly stock beta of common stock. Where these were not available, companies had to be excluded, leaving only nine (9) companies as the sample. Consequently, the finally sample size was 9 companies. The selected companies are presented in Table 4.3.

The sample is not homogeneous as the companies are taken from different industry groups. Four of the nine are from the manufacturing, three hotels and two are from trading companies. Samples are selected using convenience and stratified sampling in combined way.

II. Nature and sources of data

In order to measure the effect of leverage on cost of capital, secondary data were used. Data from the sample of nine (9) listed companies were taken. The main sources of secondary data were the Nepal Rastra Bank Directory and annual reports of sample enterprises. The data required for the study have been collected from Nepal Stock Exchange Limited (financial statements of listed companies), Nepal Rastra Bank and Security Board of Nepal and Internal Revenue Department. The data were also drawn from the financial information provided in the annual reports of respective sample companies. Some of the valuable information about the leverage and cost of capital were also obtained from the concerned authorities of selected enterprises, by asking and interacting with them individually.

III. Method of analysis

1. Descriptive statistics

The usual statistics in descriptive in nature like: mean, deviation, minimum, maximum and quartile results in each variable have been properly computed, described and analyzed. These statistics are used to summarize the data and draw some insight into the cost of capital variable, leverage measures and other independent variables.

2. Correlation analysis

Pearson's coefficient of correlation has been used to measure the degree of association between two variables. Pearson's coefficient of correlation is designated by small letter r and range from -1 to +1. The larger r, ignoring sign, the stronger the association between the two variables and the more accurately the analyst can predict one variable from knowledge of the other variable. In this part, this analysis attempted to find out the relationship between cost of capital measures and the measures of leverage and other independent variables. The priori hypothesis is that there is strong relationship between cost of capital and measures of leverage in Nepalese enterprises.

3. The Model

Regression models have been used to predict one variable from one or more other variables. Thus, this study has used regression analysis to examine the impact of capital structure (leverage) on firm's cost of capital. Using the approach adopted from Singh and Nejadmalayeri (2004), Omran and Pointon (2004) and Khadka (2006), the model for testing the impact of leverage on firm's cost of capital is estimated using the OLS technique is specified respectively as follows:

$$COC_{it} = \beta_0 + \beta_1 TL_{it} + \beta_2 BETA_{it} + \beta_3 ATO_{it} + \beta_4 LIQU_{it} + \beta_5 Lnage_{it} + \varepsilon_{it} \quad (1)$$

$$COC_{it} = \beta_0 + \beta_1 LTL_{it} + \beta_2 BETA_{it} + \beta_3 ATO_{it} + \beta_4 LIQU_{it} + \beta_5 Lnage_{it} + \varepsilon_{it} \quad (2)$$

$$COC_{it} = \beta_0 + \beta_1 STL_{it} + \beta_2 BETA_{it} + \beta_3 ATO_{it} + \beta_4 LIQU_{it} + \beta_5 Lnage_{it} + \varepsilon_{it} \quad (3)$$

Where, COC is the cost of capital. The cost of capital of the firm is defined as the weighted average of the expected market rate of return on the firm's equity capital and the market rate of interest on its debt. Capital structure ratio (leverage) is either of three variables: TL is the proportion of total debt of total assets; LTL is the proportion of long-term debt of total assets and STL is proportion of short-term debt of total assets. Three debt ratios are used in each model separately to measure the effect of capital structure on firm's cost of capital. BETA is the equity beta, a measure of systematic risk of common stock. ATO is assets turn over, calculated as sales divided by total assets. LIQU is the liquidity which is calculated as current assets divided by current liabilities. Lnage represents the natural logarithm of firm's age considered as proxy for firm's reputation.

4. Specification of variable and hypotheses

The approach used to calculate the overall cost of capital as well as components cost of capital has been stated here in detail. This study employs after-tax cost of debt and cost of equity in order to estimate WACC for selected companies. The cost of debt measures the cost of borrowing funds of the firm. In calculating the after-tax cost of debt of each company for each year, the following estimation procedure has been used:

After-tax cost of debt = pre-tax cost of debt (1- corporate tax rate)

The pre-tax cost of debt has been calculated using the ratio of interest expense to debt capital of the respective year. The prevailing corporate tax rate is used to calculate after-tax cost of debt.

Theoretically there are a number of approximations that can be made to solve the problem of estimating the cost of equity such as: the Capital Assets Pricing Model (CAPM), the Dividend Growth Model, and Arbitrage Pricing Model. In this study CAPM has been used calculate the cost of equity. This does not mean that the CAPM gives a good prediction of the true opportunity cost of equity; it is simply the best of the known options that seems appropriate in the Nepalese context where most of the companies are reporting losses in their financial statements.

The CAPM shows that the cost of equity capital is equal to the value of beta (the covariance of the return on the stock and the market's return, divided by the variance of the market's return) multiplied by the risk premium of the market plus risk-free rate. Formally, this is:

$K_s = R_f + \beta (R_m - R_f)$

Where:

K_s = cost of equity

R_f = interest rate available on a risk-free securities

R_m = return required to attract investors to hold the broad market portfolio of risky assets.

β = the relative risk of the particular asset

According to the CAPM then, the cost of equity, K_s, for a company depends on three components: returns on risk-free securities (R_f), the stock's equity beta which

measures risk of the company's stock relative to other risky assets ($\beta = 1.0$ is average risk), and the market risk premium, ($R_m - R_f$) necessary to entice investors to hold risky assets generally versus risk-free securities. Three components of the CAPM for calculating cost of equity have been described separately as follows:

A. The risk-free rate of return

The risk free rate is the return on an asset with a default risk of zero. Where risk-free rate is generally estimated by observing the yields of the Treasury Bills (T-bill) as default risk is negligible for T-bills. Empirical studies usually use as their risk-free rate the internal rate of return of a bond issued by the government, as it is presumed that agents consider the possibility of this government failing to honor its debts to be zero. The chosen bond should have a maturity similar to the firm's life-span, or that of the share being evaluated. It is, however, worthwhile stressing that the prices of these bonds are only guaranteed if they are retained until their expiry. Furthermore, although nominal return is known for certain if a bond is retained its expiry, the rate of inflation is uncertain and therefore its real rate of return of not free from risk (Berndit 1993). Bruner, Eades, Harries & Higgins (1998) report that the choice is typically between the 90-day Treasury bill yield and a long-term Treasury bond yield. The authors further clarify that the 90-day T-bill yields are more consistent with the CAPM as originally derived and reflect truly risk-free returns in the sense that T-bill investors avoid material loss in value from interest rate movements. In this study annualized weighted average 90 days Treasury bill rate has been used as proxy for risk free rate because this rate is not assumed to suffer from the annual rate of inflation and seems suitable for the purpose of calculating annual cost of capital for each sample company.

B. Equity market risk-premium

The r_m is the return on a diversified share portfolio. In computing the market risk premium the data of NEPSE general index (Value Weighted Index) has been used as a proxy of the market portfolio. For each year, the average monthly return of the index has been calculated first, and then the average monthly returns have been converted into a yearly return. Finally, the realized market risk-premium for each year has been estimated by subtracting the risk-free- rate of that year from the estimated return of the index.

The market's risk premium measures the additional yield which an investor requires in order to maintain a diversified portfolio of shares instead of a risk-free asset. Some authors calculate the components of the risk premium separately, though common practice is to calculate the market's premium directly, estimating it as an average of the past returns of an appropriate market index. The idea behind realizing an average of the past returns as a way of obtaining the market risk premium (MARP) presupposes that all historical returns have equal probability of occurring in the future.

In general, the approach used for estimating the MARP is an historical one. It is assumed that the average of past returns is a suitable predictor of expected returns. In accordance with such approach, the calculation of market risk should use the greatest period of time possible for which data are available. The idea is as follows: there are short periods in which investors earn more than expected, which are then compensated for by short periods in which they earn less than expected. It is only over long periods that expected and actual returns converge. Risk premiums based on short period of time can be excessively volatile, dependent on circumstantial market factors. Future returns are unknown, they are subject to chance, and to obtain the mean value of a random variable it is the arithmetic average which is the correct one to use (Morin, 1994).

C. Beta estimates

The beta represents (a measure of systematic risk) the beta of a share is the specific risk coefficient. Beta has been calculated econometrically. The estimation of absolute betas can differ for a number of reasons: the time period used, the choice of market index, and whether returns are annual, monthly, weekly or daily, are all factors which will influence the final result. On the other hand, the standard procedure has been followed while estimating beta of each company for each year which is to regress stock returns (R_j) against the market returns (R_m). A linear regression equation for estimating beta has been used as follows:

$$R_{j,t} = \alpha_j + \beta_j R_{m,t} + \varepsilon_{j,t}$$

Where, $R_{j,t}$ is the return on stock j at moment t (monthly return including capital gains). The α_j is the intercept from the regression and β_j is beta, the slope of the regression which corresponds to the beta of the stock and measures the riskiness of the stock and $\varepsilon_{j,t}$ is the error term. In this study, the process consists in carrying out a regression of ordinary least squares where the monthly return on stock of each company is the dependent variable and a constant and monthly return of the NEPSE index of the market are interdependent variables. The monthly stock returns have been regressed against the monthly index returns for calculating the beta of each company for each year. The monthly return of each company has been calculated first, as follows:

Monthly return = (monthly closing price - monthly beginning price)/ monthly beginning price

The average monthly return of each company for each year has been converted, finally, into the yearly return, which has been used as the estimated yearly return of each company for each year. After estimating the beta, market risk premium and selecting appropriate risk free rate and then, the cost of equity has been estimated for each company for each year.

Given all these estimates, the general form of the WACC equation has been used in calculating the WACC of each company for each year using following formula:

$$WACC = D/(D+E) \times Kdt + E/(D+E) \times K_s$$

Where, WACC is the weighted average cost of capital. D is the total market value of the debt in a particular year. Since market value of debt is not available, book value of debt is assumed to be the market value of debt. E is total market value equity of the equity of the company in a particular. Kdt is the after tax cost of debt capital. K_s is the cost of common equity. Having estimated the overall cost of capital (WACC) of each company for each year, regression models have been estimated to examine the effect of leverage on overall cost of capital.

The independent variables and their predicted relationship with cost of capital have been described as follows:

a. Leverage

Leverage can be defined in a number of ways. The definitions fall into three broad categories: (1) the ratio of debt (or debt plus preferred) to equity, measured either in book value or in market value terms; (2) the "coverage" ratio, or earnings before interest and taxes divided by the fixed charges adjusted for taxes; and (3) a probabilistic measure of the likelihood that the firm's earnings will be insufficient to meet the fixed charges. Barges (1962) used a leverage variable equal to debt divided by book value of the common equity. However, debt divided by market value of the common equity and not debt divided by book value of the common equity is the relevant variable in the Modigliani-Miller (1958, 1963) theory of leverage.

This study has attempted to measure the effect of capital structure on cost of capital. Capital structure ratio (leverage) is either of three variables: TL is the proportion of total debt of total assets; LTL is the proportion of long-term debt of total assets and STL is proportion of short-term debt of total assets. Three debt ratios are used in each model separately to measure the effect of capital structure on firm's cost of capital.

The overall cost of capital may, of course, be affected by the capital structure of the firm. Robichek, Higgins, and Kinsman (1973) conclude that (a) Leverage has a measurable effect on the cost of equity capital; (b) A book-value measure of leverage is superior to a market-value basis in explaining empirically the effect of leverage on the cost of equity capital; and (c) Electric utility companies using flow-through have costs of equity capital somewhat lower than non-flow-through companies. The effect of leverage on the cost of equity is positive as long as the after-tax return on equity is greater than the after tax return on debt. This appears reasonable over a relevant range of leverage, as suggested in Modigliani and Miller (1958). Barges (1963), Weston (1965), Davenport (1971), Wippern (1966), Sharma and Rao (1969), Pandey (1991), and others have conducted empirical works in different contexts to test the validity of the MM hypothesis. Most of these researchers have found that the cost of capital and capital structures are relating and thereby supported the traditional view.

Solomon (1963) has concluded that a company's cost of capital is independent of its financial structure is not valid. Singh and Nejadmalayeri (2004) have found that internationally diversified firms support higher level of debt financing that directly

results in reductions of the overall cost of capital despite higher equity risk levels as proxies by beta. The authors found that total debt, long term debt as well short term debt is significantly negatively related to cost of capital. Khadka (2006) reports the negative and statistically significant coefficient of leverage and indicated the leverage is negatively correlated with cost of equity. The author discovers that the cost of common equity decreases with increase in the leverage in the case of Nepalese companies. In view of past studies, the relationship of cost of capital and capital structure strategies, it is predicted that higher level of debt financing directly results in reduction of the overall cost of capital. Thus, consistent with prior literature, the hypothesis is:

Hypothesis: *The firm's cost of capital is negatively related to leverage.*

b. Beta

Beta as proxy for systematic risk has been included as independent variable in the regression model. Systematic risk being one of the components of obtaining cost of common equity using CAPM, is likely supposed to affect overall cost of capital. In the same manner, Singh and Nejadmalayeri (2004) found that beta is significantly positively related to cost of capital. They reported that, as expected, higher equity risk in terms of beta positively relates to the overall cost of capital. Consistent with past literature, the hypothesis is:

Hypothesis: *The firm's cost of capital is positively related to beta*

c. Assets Turnover

Firms with higher assets turnover ratio -- reflecting lower managerial agency problem in Ang *et al*. (2000) framework--have lower cost of capital. Ang *et al*. (2000) and Singh and Davidson (2003) argue that the asset turnover ratio measures management's ability to employ assets efficiently. The higher assets turnover ratio reflects the lower managerial agency problem. Singh and Nejadmalayeri (2004) conclude that firms with higher asset turnover ratio have lower cost of capital. In line with past literature, the hypothesis is:

Hypothesis: *The firm's cost of capital is negatively related to the assets turnover*

d. Liquidity

The corporate finance literature suggests that asset liquidity enhances a firm's operating flexibility and thus it may reduce the cost of capital by facilitating firms' restructuring processes (e.g., Maksimovic and Phillips (1998), and Schlingemann, Stulz, and Walking (2002)), which is especially valuable to firms facing economic adversity (e.g., Lang, Poulsen, and Stulz (1995), Weiss and Wruck (1998), and Almeida, Campello, and Hackbarth (2009)). Moreover, the asset pricing literature (e.g., Kogan (2004), Gomes, Kogan, and Zhang (2003), Carlson, Fisher, and Giammarino (2004), Zhang (2005), and Cooper (2006)) also suggests that firms facing illiquid asset markets are unable to sell unproductive assets to cut their fixed costs in times of low demand, and thus the higher operating risk leads investors to require higher returns for the capital they provide. Likewise, Ortiz-Molina and Phillips (2010) have found that assets liquidity affects firms' cost of capital both in cross-section and in the time series: firms in industries with more liquid assets and during periods of high asset liquidity have lower cost of capital. They have also found that higher asset liquidity reduces the cost of capital by more for firms that face more competitive risk in product markets, have less access to external capital or are closer to default, and for those facing negative demand shocks. But in Nepalese context, Khadka (2006) has found insignificant relationship between liquidity variable and cost of capital. These arguments lead to the development of hypothesis that assets liquidity reduces firm's cost of capital by increasing their operating flexibility. Consistent with theory and results of past major studies the hypothesis is:

Hypothesis: *The firm's cost of capital is negatively related to the liquidity.*

e. Age

The natural log of firm's age has been used as the proxy for firm's reputation. Age captures a firm's stage in lifecycle and hence its business risks (Fama and French, 1992). The older firm implies more reputed one and can be expected to obtain fund in favorable terms than younger firm. Thus, age of firm and cost of capital seems to be related. The age variable can have the explanatory influence on the cost of raising fund and the direction of influence can however, be negative. The hypothesis is:

Hypothesis: *The firm's cost of capital is negatively related to the firm's age.*

Table 4.4 summarizes the main explanatory factors of cost of capital along with priori expected hypothesis.

Table 4.4
Effect of leverage along with other variables on cost of capital - priori hypothesis

Factors	Expected Relationship with COC	Explanation
Leverage	Negative	Higher level of debt financing that directly results in reductions of the overall cost of capital.
Beta	Positive	Greater the equity beta higher the systematic risk of common stock their by increase the cost of capital.
ATO	Negative	Firms with higher assets turnover ratio reflects lower managerial agency problem and eventually might lower cost of capital.
LIQU	Negative	Asset liquidity enhances a firm's operating flexibility and thus it may reduce the cost of capital by facilitating firms' restructuring processes.
Lnage	Negative	The older firm can be expected to obtain funds in favorable terms than younger firm. Thus, age variable can have negative influence on cost of capital.

4.4 Analysis of data

4.4.1 Cost of capital position of sample companies

The cost of capital (COC) has been computed for the selected companies. The COC is presented in Table 4.5. The COC is widely different from one company to another.

Table 4.5
Cost of capital (COC) for the period of 2003 to 2012

This table shows the position of cost of capital for selected companies for the period of 2003-2012. Cost of capital of selected companies over 10 years period and average in row indicates for an individual company. The S.D. indicates the standard deviations of cost of capital over different periods and companies. (Market value weight)

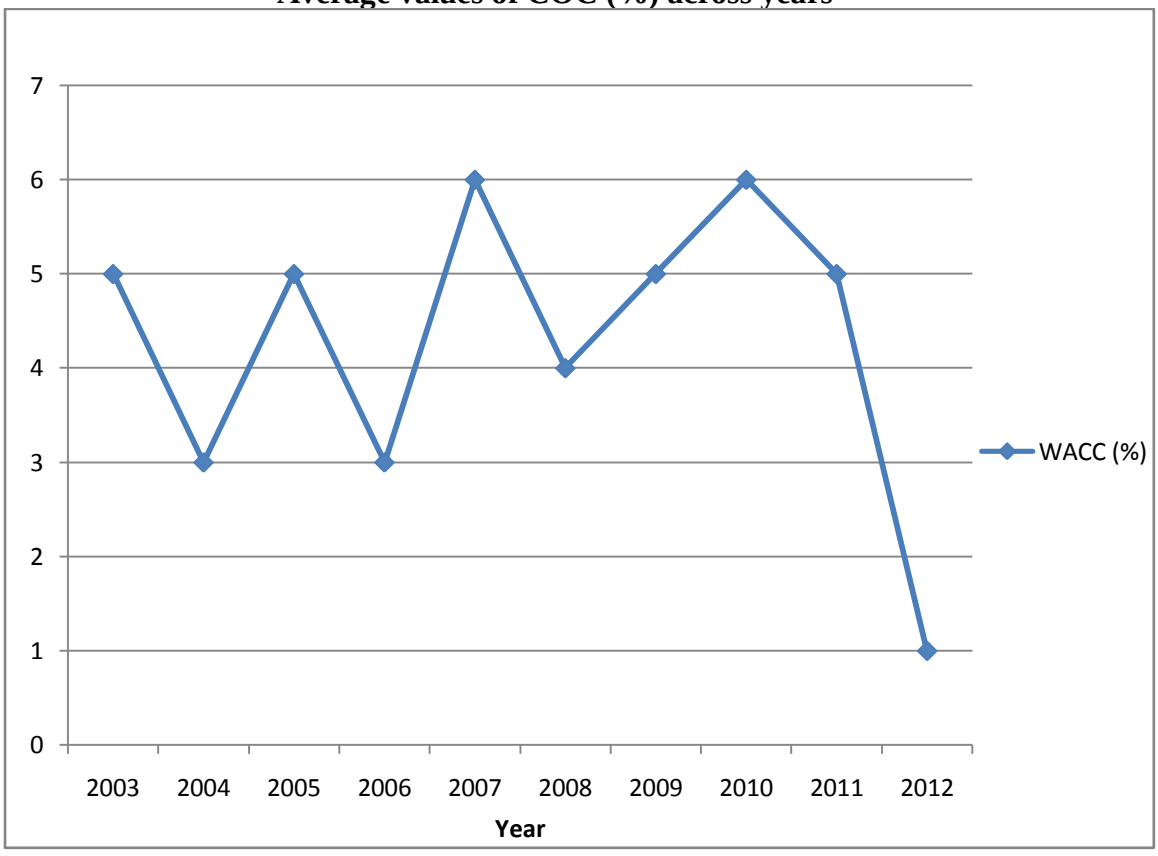
Company	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average	S.D.
BBCL	0.06	0.03	0.15	0.02	0.02	0.11	0.06	0.11	0.02	NA	0.06	0.05
BNTL	0.03	0.02	0.02	0.02	0.01	0.03	0.03	0.02	0.05	0.01	0.02	0.01
BNL	0.03	0.01	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.01	0.03	0.02
NLOL	0.03	0.03	0.02	0.03	0.04	0.03	0.04	0.04	0.05	NA	0.03	0.01
OHL	0.05	0.05	0.04	0.04	0.04	0.04	0.07	0.09	0.06	0.03	0.05	0.02
STC	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.06	0.06	NA	0.05	0.01
SHL	0.12	0.03	0.03	0.03	0.18	0.04	0.08	0.06	0.06	0.01	0.06	0.05
TRHL	0.07	0.03	0.03	0.04	0.06	0.04	0.03	0.03	0.03	NA	0.04	0.01
UNL	0.03	0.05	0.08	0.02	0.09	0.01	0.06	0.09	0.06	0.01	0.05	0.03
Average	0.05	0.03	0.05	0.03	0.06	0.04	0.05	0.06	0.05	0.01	0.04	0.02
S.D.	0.03	0.01	0.04	0.01	0.05	0.03	0.02	0.03	0.02	0.01	0.01	0.02

Source: Financial statement of sample companies from 2003 to 2012

The COC is largest for BBCL and SHL (6 percent), followed by OHL STC and UNL, (5 percent), TRHL (4 percent), BNL and NLOL (3 percent) lastly BNTL (2 percent). The range of the weighted average cost of capital is from 6 percent to 2 percent.

The year wise cost of capital reveals that there is fluctuating cost of capital over the sample period (2003 to 2012). The average COC was 5 percent in 2003 and it was only 1 percent in 2012 which represents minimum average COC and the maximum average COC is found in 2007 and 2010. The results are also reflected in Figure 4.2.

Figure 4.2
Average values of COC (%) across years



The cost of equity (COE) has also been computed for the selected companies. The cost of equity (COE) is presented in Table 4.6 which shows that the COE is widely dissimilar from one company to another. The cost of equity is largest for SHL (8 percent), followed by BBCL, TRHL and UNL (7 percent), OHL (6 percent), STC (5 percent), BNTL, BNL and NLOL (4 percent). The maximum cost of equity was for SHL (8 percent) and the minimum cost of equity was for BNTL, BNL and NLOL (4 percent).

Table 4.6
Cost of equity (COE) for the period of 2003 to 2012

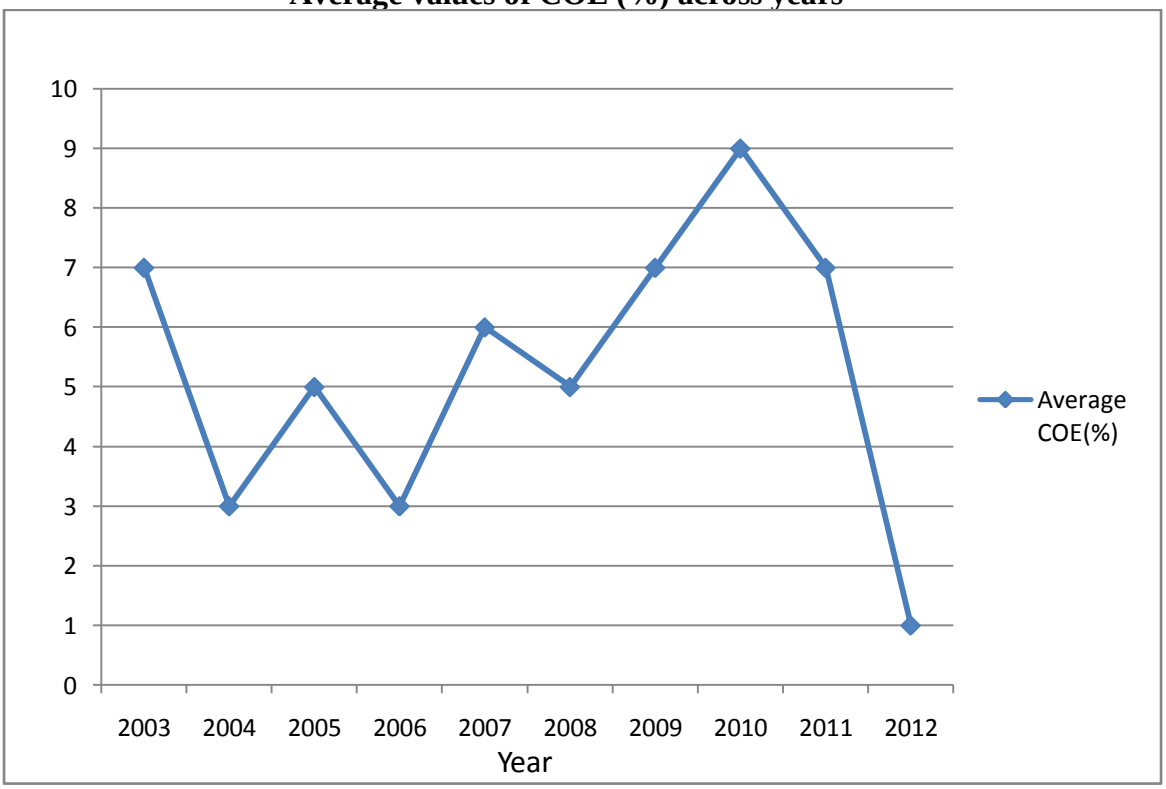
This table shows the position of cost of equity for selected companies for the period of 2003-2012. Cost of equity of selected companies over 10 years period and average in row indicates for an individual company. S.D. indicates the standard deviations of cost of equity over different periods and companies. (Market value weight)

Company	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average	S.D.
BBCL	0.04	0.03	0.18	0.03	0.02	0.11	0.06	0.11	0.02	NA	0.07	0.05
BNTL	0.04	0.03	0.02	0.03	0.02	0.04	0.04	0.03	0.07	0.01	0.04	0.02
BNL	0.03	0.01	0.02	0.03	0.02	0.04	0.06	0.07	0.07	0.01	0.04	0.02
NLOL	0.03	0.03	0.02	0.03	0.02	0.04	0.06	0.07	0.07	NA	0.04	0.02
OHL	0.03	0.03	0.02	0.03	0.02	0.04	0.11	0.16	0.14	0.01	0.06	0.05
STC	0.03	0.03	0.02	0.03	0.02	0.05	0.07	0.18	0.05	NA	0.05	0.05
SHL	0.18	0.04	0.02	0.03	0.25	0.04	0.10	0.07	0.07	0.01	0.08	0.08
TRHL	0.23	0.03	0.02	0.03	0.06	0.07	0.05	0.06	0.05	NA	0.07	0.06
UNL	0.03	0.08	0.13	0.03	0.11	0.02	0.07	0.10	0.07	0.01	0.07	0.04
Average	0.07	0.03	0.05	0.03	0.06	0.05	0.07	0.09	0.07	0.01	0.06	0.04
S.D.	0.08	0.02	0.06	0.00	0.08	0.03	0.02	0.05	0.03	0.00	0.02	0.02

Source: Financial statement of sample companies from 2003 to 2012

The year-wise average COE reveals that there is fluctuating cost of equity capital over the sample period (2003 to 2012). The maximum average COE is found in 2010 (9 percent), followed by in 2003, 2009 and 2011 (7 percent) while minimum average COE is found in 2012. The same types of results have been reflected in Figure 4.3.

Figure 4.3
Average values of COE (%) across years



4.4.2 Descriptive statistics of cost of capital and its predictors

Table 4.7 displays the detail of descriptive statistics of the variables used in the analysis. The third column of table shows the mean of the variables including cost of capital, total leverage, long term leverage, short-term leverage, equity beta, assets turnover, liquidity and natural log of age. The respective mean values are: 0.046, 0.645, 0.179, 0.466, 0.036, 0.797, 0.997and 3.037. The mean value of weighted average cost of capital of Nepalese sample companies is 4.60 percent implying that, most non-financial firms in Nepal are low cost bearing companies. Leverage which is measured by total debt to total assets ratio has mean value of 64.50 percent. The result displays that the debt capital is used more than equity capital by Nepalese sample companies to finance their assets.

Table 4.7
Descriptive statistics of cost of capital, leverage variables and other variables (n = 86)

Variables	Scale	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25	50	75
COC	Ratio	0.046	0.030	0.007	0.180	0.027	0.039	0.057
TL	Ratio	0.645	0.198	0.260	1.060	0.520	0.620	0.753
LTL	Ratio	0.179	0.273	0.000	0.880	0.000	0.005	0.230
STL	Ratio	0.466	0.195	0.100	0.990	0.315	0.465	0.600
BETA	Ratio	0.036	0.581	-1.647	2.386	-0.066	0.000	0.070
ATO	Ratio	0.797	0.530	0.060	2.387	0.445	0.711	1.004
LIQU	Ratio	0.997	0.613	0.052	4.415	0.568	0.999	1.288
Lnage	Ln	3.037	0.535	1.792	3.807	2.621	3.068	3.526

Source: Financial statement of sample companies from 2003 to 2012

The fourth column of the table explains the standard deviation of the given variables. The fifth and sixth columns give details of the minimum and maximum values of the given variables respectively. The percentile values of the variable have been shown at the last column of the Table 4.7.

4.4.3 Relationship among cost of capital and predictors

Table 4.8 reports pair-wise correlations among empirical variables. Several interesting patterns emerge. It has been found that cost of capital (COC) is positively but insignificantly correlated with total leverage, short-term leverage, beta, assets turnover and natural log of age. But it is significantly negatively correlated with liquidity. The highest correlated variable of the cost of capital (COC) is also liquidity, having a correlation coefficient of -.223 and it is significant at a 0.05 level of significance (ie. $P < 0.05$). The result indicates that cost of capital (COC) is mostly

depends on profitability. The negative correlation coefficient between cost of capital and liquidity implies that more liquid Nepalese firm has lower cost of capital.

Analysis among the independent variables shows that there is maximum correlation coefficient of .702 between total leverage and long-term leverage. These two variables are individually used in the regression, thus it may not cause multicollinearity. With regard to the analysis among other independent variables, the correlation coefficients are found less than -.691, hence indicating that there is an absence of multicollinearity though each and every variable has some relationship with each other.

Table 4.8
Pearson correlation matrix of cost of capital and predictors (n= 86)

The Pearson correlation coefficients for all sample companies are reported in Table 6.6. COC is the overall cost of capital; TL is the ratio of total debt to total assets; LTL is the ratio of long-term debt to total assets; STL is ratio of short-term debt to total assets; BETA is the equity beta, a measure of systematic risk; ATO is the ratio of sales to total assets; LIQU is the ratio of current assets to current liabilities; Lnage is natural logarithm of firms age.

Variables	COC	TL	LTL	STL	BETA	ATO	LIQU	Lnage
COC	1							
TL	0.182	1						
LTL	0.059	.702**	1					
STL	0.099	0.029	-.691**	1				
BETA	0.120	-0.038	-0.090	0.087	1			
ATO	0.020	-.309**	-.558**	.469**	0.033	1		
LIQU	-.223*	-.432**	-.291**	-0.028	-0.030	.404**	1	
Lnage	0.131	-.481**	-.580**	.326**	-0.119	0.124	0.194	1

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

4.4.4. Effect of leverage on cost of capital

Table 4.9 displays the estimated least square regression result that identifies the effect of total leverage (capital structure) along with equity beta, assets turnover, liquidity, and natural log of age on cost of capital. Capital structure (debt to total assets ratio) has a positive and significant relation with cost of capital. The result is contrary to priori expectation because negative relationship was expected. It implies that as firm's debt level increases in Nepalese sample companies, their cost of capital is expected to increase.

In addition to capital structure, natural log of age (Lnage), has also been the influencing variable for cost of capital. Since coefficient is positive and significant at 1 percent level of significance, imply that longer age firm is likely to issue costly

security (i.e. common stock) thereby may cause increase in cost of capital. The other independent variables like: equity beta, assets turnover, and liquidity are found insignificant.

The capital structure (debt to total assets ratio (TL) significantly influence cost of capital because its coefficient is higher than age variable. R-square value in the model-1 explains about 16.4 percent of the variations in the dependent variable (COC) can be explained by independent variables. VIF values in model-1 displayed in Table 4.9 are less than (i.e. VIF < 2). It indicates that the estimated regression equations are free of multicollinearity.

Table 4.9
Effect of total leverage on cost of capital (TL)

$$COC_{it} = \beta_0 + \beta_1 TL_{it} + \beta_2 BETA_{it} + \beta_3 ATO_{it} + \beta_4 LIQU_{it} + \beta_5 Lnage_{it} + \varepsilon_{it} \quad (1)$$

Predictors	Coef.	S.E.	t-value	P-value	Tolerance	VIF
Constant	-0.032	0.030	-1.071	0.287		
TL	0.044	0.019	2.264	0.026	0.625	1.600
BETA	0.008	0.005	1.508	0.135	0.970	1.031
ATO	0.009	0.006	1.347	0.182	0.813	1.230
LIQU	-0.010	0.006	-1.792	0.077	0.730	1.371
Lnage	0.017	0.007	2.652	0.010	0.749	1.335
R^2 = 0.164		Adj.R^2 = 0.112		F = 3.136		F(sig) = 0.012

Source: Annual report of sample companies

Table 4.10 reports the estimated least square regression results of the effect of long-term leverage along with equity beta, assets turnover, liquidity, and natural log of age on cost of capital. R-square value in the model-2 explains about 17 percent of the variations in the dependent variable (cost of capital). VIF values in model-2 are less than (i.e. VIF < 3). It indicates that the estimated regression equations are free of multicollinearity.

Capital structure (long-term debt to total assets ratio) has a positive and significant relation with cost of capital. It is statistically significant at 5 percent level of significance and implies that long-term leverage significantly affects the cost of capital. The tabulated results display that assets turnover and natural log of age are also significantly positively related to cost of capital. Liquidity is negatively and significantly (which is as per priory expectation) related to cost of capital, it implies

that firms with more liquid assets should have lower cost of capital. Equity beta is found insignificant and can be concluded that it does not affect cost of capital.

Table 4.10
Effect of long-term leverage on cost of capital (LTL)

$COC_{it} = \beta_0 + \beta_1 LTL_{it} + \beta_2 BETA_{it} + \beta_3 ATO_{it} + \beta_4 LIQU_{it} + \beta_5 Lnage_{it} + \varepsilon_{it}$ (2)

Predictors	Coef.	S.E.	t-value	P-value	Tolerance	VIF
Constant	-0.028	0.028	-1.018	0.312		
LTL	0.042	0.017	2.410	0.018	0.406	2.463
BETA	0.009	0.005	1.739	0.086	0.940	1.064
ATO	0.017	0.008	2.217	0.029	0.559	1.790
LIQU	-0.015	0.005	-2.704	0.008	0.815	1.227
Lnage	0.022	0.008	2.939	0.004	0.566	1.765
R^2 = 0.171		Adj.R^2 = 0.119		F= 3.289		F(sig) = 0.009

Source: Annual report of sample companies

Table 4.11 reports the estimated regression model that displays the effect of short-term leverage on cost of capital. R-square value of 0.112 (in model-3) indicates that about 11 percent of the variations in the dependent variable (cost of capital) can be explained by independent variables. VIF values in models-3 displayed in Table 4.11 are less than two (i.e. VIF < 2). It indicates that the estimated regression equations are free of multicollinearity.

Table 4.11
Effect of short-term leverage on cost of capital (STL)

$COC_{it} = \beta_0 + \beta_1 STL_{it} + \beta_2 BETA_{it} + \beta_3 ATO_{it} + \beta_4 LIQU_{it} + \beta_5 Lnage_{it} + \varepsilon_{it}$ (3)

Predictors	Coef.	S.E.	t-value	P-value	Tolerance	VIF
(Constant)	0.023	0.018	1.254	0.214		
STL	-0.009	0.021	-0.440	0.661	0.617	1.621
BETA	0.007	0.005	1.265	0.210	0.968	1.033
ATO	0.008	0.008	1.066	0.290	0.590	1.694
LIQU	-0.016	0.006	-2.589	0.011	0.723	1.384
Lnage	0.012	0.007	1.800	0.076	0.811	1.233
R^2 = 0.112		Adj.R^2 =0.057		F=2.027		F(sig) = 0.084

Source: Annual report of sample companies

Table 4.11 shows that short-term leverage (STL) and cost of capital have negative but statistically insignificant coefficient. Likewise beta, assets turnover, and natural log of age also have positive but statistically insignificant coefficients. It indicates that leverage, beta, assets turnover and natural log of age have no significant effect on cost of capital. As per priori expectation, the liquidity variable is significantly negatively

related to cost of capital. The negative coefficient of liquidity variable indicates that more liquid firm should have lower cost of capital in Nepalese context. The result is consistent with the findings of Ortiz-Molina and Phillips (2010). At the firm-level they found that assets liquidity affects firms' cost of capital both in cross-section and in the time series: firms in industries with more liquid assets and during periods of high asset liquidity have lower cost of capital.

4.5 Discussion

Capital structure (debt to total assets ratio and long-term debt to total assets ratio) has a positive and significant relation with cost of capital. It implies that as firm's debt level increases its cost of capital is expected to increase. The result is contrary to priori expectation while negative relationship was expected. The result contradicts Singh and Nejadmalayeri (2004) who have found that total debt, long term debt as well short term debt is significantly negatively related to cost of capital. The result is also at odds with the position of Omran and Pointon (2004) who have found that capital gearing (leverage) is negatively significantly related with cost of capital in actively traded companies. The result also runs counter to Khadka's assertion (2006) that there is a negative but insignificant beta value of the relationship between leverage and the overall cost of capital. The author concludes that the leverage may not be regarded as contributing variable to the cost of capital for Nepalese firms.

Given that in this study the coefficients of leverage proxies are positive and significant, it can be safely concluded that higher leverage does seem to increase the perceived riskiness of Nepalese firms. Thus, higher leverage in fact seems to increase the overall cost of capital in Nepalese non-financial companies. The capital structure (debt to total assets ratio (TL) significantly influence cost of capital because its coefficient is higher than that of other independent variables used in regression model.

The test results compared with the priori expectation has been displayed in Table 4.12. Equity beta is found insignificant and can be concluded that it does not affect cost of capital. But Alouj, Nai, and Amiri (2012) found that the beta factor has strong impact on the relationship between weighted average cost of capital and its determinants which indicates that firms with high beta have significantly higher cost

of equity, higher cost of debt, higher equity financing and lower debt financing and lower effective tax rate benefits and finally higher cost of capital.

Table 4.12
Comparison of the test results with the priori expectation

Variables	Expected relationship	Test results for Nepalese firms (Dependent variable = COC)		
		Model-1 (TL)	Model-2 (LTL)	Model-3 (STL)
Leverage	-	+	+	NS
Beta	+	NS	NS	NS
Assets Turnover	-	NS	+	NS
Liquidity	-	NS	-	-
Age	-	+	+	NS

+ indicates positive
- indicates negative
NS= Not Significant

Assets turnover, a measure of agency cost, was found positively significant related to cost of capital in all sample and manufacturing sample but it found insignificant in non-manufacturing sample. However, Singh and Nejadmalayeri (2004) found negative coefficient of assts turnover with cost of capital. The authors asserted that firms with high asset turnover ratio-reflecting lower managerial agency problem-have lower cost of capital. The result of the present study doesn't support this contention. The result indicates that if asset turnover (i.e. firm's efficiency) increases cost of capital also increase. This is somewhat surprising results in Nepalese companies. This result could be justified in sense that the more efficient the firm is, profit will be relatively higher and the shareholders' expectation may increase and eventually cost of capital may increase due to increase in cost of equity in Nepalese companies.

The liquidity variable is significantly negatively related to cost of capital which is as per priory expectation. The result implies that firm with more liquid assets should have lower cost of capital. This result is consistent to the findings of Ortiz-Molina and Phillips (2010), where they found that high asset liquidity have lower cost of capital. But the result is contradictory to that of Singh and Nejadmalayeri (2004). They found that liquidity is significantly positively related to overall cost of capital where

liquidity is the main determinants of the overall cost of capital for the food sector forms in Egypt.

As age is significantly positively related (negative relationship was expected) to cost of capital, it indicates that age affects cost of capital. The result implies that even longer age firm is likely to issue costly security (i.e. common stock) thereby may increase cost of capital.

Finally, this study has been undertaken on the issue of effect of capital structure on cost of capital in Nepal based on a sample of 9 companies. CAPM model has been used to measure the cost of equity and in turn the cost of capital (overall) has been computed on the basis of market value weight. Broadly speaking, cost of equity is around 6 percent and overall cost of capital is about 4 percent. Multiple regression models are used to examine the effect of leverage on cost of capital along with four control variables. Capital structure (debt to total assets ratio and long-term debt to total assets ratio) is found as the main determinants of cost of capital. Since there is a significant positive association between leverage and cost of capital, it implies that as firm's debt level increases its cost of capital is also expected to increase. This finding is can be justified in the sense that most of the Nepalese companies are highly leveraged companies and excessive leverage can enhance financial risk and eventually cost of capital rises. When sample is sub-divided into manufacturing and non-manufacturing sample groups, the capital structure does not stood as significant variable affecting cost of capital. A statistically sound model has not been found to explain the cost of capital in non-manufacturing (hotel and trading) samples. More significantly it has been found that even after controlling for the effect of the degree of assets turnover, liquidity, age, the higher degree of capital structure (leverage) results in higher overall--combined debt and equity--cost of capital in Nepal.

CHAPTER V

EFFECTS OF LEVERAGE ON FIRM VALUE IN NEPALESE ENTERPRISES

5.1 Introduction

The relationship between capital structure and firm value has been the subject of considerable debate, both theoretically and in empirical research. Throughout the literature, debate has centered on whether there is an optimal capital structure for an individual firm or whether the proportion of debt usage is irrelevant to the individual firm's value. Modigliani and Miller (1958 and 1963) demonstrate that, in a frictionless world, financial leverage is unrelated to firm value, but in a world with tax-deductible interest payments, firm value and capital structure are positively correlated to each other. Miller (1977) adds personal taxes to the analysis and demonstrates that optimal debt usage occurs on a macro level, but it does not exist at the firm level. Interest deductibility at the firm level is offset at the investor level. Further, the author incorporating the personal income tax along with the corporation income tax into their second modified model reported that leverage will have the positive effect on firm values if the personal marginal tax rate for capital gain is equal or greater than the personal marginal tax rates for dividends and interests. Ruland and Zhou (2005) and Robb and Robinson (2009) agree with Modigliani and Miller (1963) that the gains from leverage are significant, and that the use of debt increases the market value of a firm.

However, other theories such as the trade-off theory (Myers,1984), pecking order theory (Myers and Majluf,1984) and agency cost theory (Jensen and Meckling, 1976) argue that if capital structure decision is irrelevant in a perfect market, then, imperfection which exist in the real world may be adduce for its relevance. Such imperfections also include bankruptcy costs (Baxter, 1967, Kraus and Litzenberger, 1982; and Kim, 1998), gains from leverage-induced tax shields (De Angelo and Masulis, 1980) and information asymmetry (Myers, 1984) to the analysis and have maintained that an optimal capital structure may exist. Empirical work by Bradley, Jarrell and Kim (1984), Long and Malitz (1985) and Titman and Wessells (1985) largely supports bankruptcy costs or agency costs as partial determinants of leverage

and of optimal capital structure. Pandey (2004) concludes that the capital structure decision of a firm influences its shareholders return and risk. Consequently, the market value of its shares may be affected by the capital structure decision. The objective of a firm should therefore be directed towards the maximization of its value by examining its capital structure or financial leverage decision from the point of view of its impact on the firm value.

Under the agency costs hypothesis, a high leverage or a low equity/asset ratio reduces the agency costs of outside equity and increases firm value. It is agreed that the value of a leveraged firm is greater than that of an un-leveraged firm if one doesn‘t consider bankruptcy probability. If benefit and cost of debt is considered simultaneously, the leverage is positively related to the firm value before reaching firm's optimal capital structure.

The trade off theory suggests that firms would seek more debt as long as the present value of the tax shield is greater than the present value of bankruptcy, agency and all other costs associated with higher leverage. Based on the agency cost theory, as debt is sold, the agency costs of debt also increase with leverage, while the proportion of equity and agency costs of equity decreases. The result is a decrease in the total agency costs. Jensen and Meckling (1976) argue that there is an optimum amount of leverage that would be associated with a minimum amount of total agency costs. Besides, Jensen (1986) points out that debt may reduce the agency costs of free cash flow by reducing the amount of cash under management control. The optimal debt-equity ratio is the point at which firm value is maximized, the point where marginal costs of debt just offset the marginal benefits.

Grounded on the pecking order theory, Myers and Majluf (1984) argue that the firms prefer the debt finance to the equity finance when using external financing. The signaling theory (Ross, 1977; Heinkel, 1982) states that a firm with favorable prospects will raise new capital through debt financing, while a firm with unfavorable prospects will go through equity financing. Incentive-signaling model developed by Ross (1977) provides a theory for the determination of the financial structure of the firm. The manager of a firm maximizes his incentive return by choosing a financial

package that trades off the current value of the signal given to the market against the incentive consequences on that return.

Proponents of management entrenchment theory argue that subjective reasons may determine leverage choices made by managers. However, different conclusions are drawn by Agrawal and Mandelker (1987), and Mehran (1992) on one hand, and Friend and Lang (1988), and Berger *et al.* (1997) on the other hand. Based on the market timing theory, Baker and Wurgler (2000) argue that when equity prices are too high, existing shareholders benefit by issuing overvalued equity, and when equity prices are too low, issuing debt is preferable. In a related study, Parrino and Weisbach (1999) empirically estimate that the agency costs of debt are too small to offset the tax benefits. However, debt not only can mitigates the manager-shareholder conflict, but also can reduce the agency costs of equity by means of the following methods: Firstly, it can reduce the agency costs of equity by raising the manager's share of ownership in the firm, Secondly, it can achieve the same goal by reducing the amount of free cash available to managers to engage in the pursuits (Jensen, 1986) because debt commits the firm to pay out cash. If high risk projects are done well, the debt holders may only gain regular returns, hence, all the other extra benefits are distributed to equity holders. On the contrary, if the project is break down, the debt holders must share the losses jointly with the equity holders. With a view to protecting themselves, debt holders must monitor the firm and impose covenants (Jensen & Meckling, 1976; Long &Malitz, 1985; Barnea, Haugen and Senbet, 1985). If management finds out that all the economic benefits derived from investment projects will be distributed to debt holders only, they will give up all the investment projects profitable to the firm (Barnea *et al.*, 1985; Titman &Wessels, 1988). Both of case can be described as agency costs of debt, which may be resulted in reducing the value of the firm.

McConnell and Servaes (1995) argue that firm value and capital structure may be closely correlated. This is further clarified in Berger and di Patti (2003). On the one hand, high leverage may reduce the agency costs of outside equity and increase firm value by encouraging managers to act more in the interests of shareholders. Likely, there can be reverse causation from firm efficiency/performance to capital structure.

For example, more efficient firms may choose lower equity ratios than others, all else equal, because higher efficiency reduces the expected costs of bankruptcy and financial distress. More efficient firms may also choose higher equity capital ratios, all else equal, to protect the rents or franchise value associated with high efficiency from the possibility of liquidation (Berger and di Patti, 2003). While the former is known as the efficiency-risk hypothesis the latter is known as the franchise-value hypothesis. If leverage is relatively high, further increases may generate significant costs including bankruptcy cost and thus may lower firm value. Similarly, effects of firm value on leverage could be non-monotonic; at lower levels of firm value efficiency-risk could be greater than franchise-value but franchise-value could exceed efficiency-risk at a higher level of firm value.

Firm can maximize its value by choosing lower level of debt or zero debt (Kinsman and Newman, 1998). On the other hand, Ross (1977) suggests that the value of firms will rise with leverage, since increasing leverage increases the market's perception of value. Suppose there is no agency problem, i.e. management acts in the interest of all shareholders. The manager will maximize company value by choosing the optimal capital structure; highest possible debt ratio. High-quality firms need to signal their quality to the market, while the low-quality firms' managers will try to imitate. According to this argument, the debt level should be positively related to the value of the firm.

Moreover, financial supply decisions can directly affect two factors constituting stock return and its price variations and, therefore, shareholders wealth. Firms should look for a mix of financial supply resources (financial structure) to maximize stock market value or firms' value. Therefore, a financial manager should decide about firm financial structure, i.e. ratio of debt and capital which should be kept in the firm, to change capital costs and firm stock value to minimum and maximum level as much as possible, respectively. Such structure with minimum capital cost and maximum stock value is known as optimal capital structure. Realization of the goal convinces the financial managers to create the best capital optimal mix to maximize firm value considering quantitative parameters found in financial statements especially profitability, turnover, company size, liquidity, growth and business risk and

available qualitative variables including industry type, public perspective, and ownership compound. Researches previously conducted in this regard have not reached a general acceptable result and some of them have attributed effects of leverage on firm value to growth opportunities of the firm. However, these studies have not considered leverage differences among industries in developing countries.

Managers often decide the capital structure to achieve long- run maximization of firm's value. Recent empirical literature found, using data from developed economies, that high debt to equity positively contributes to the firm's value since debt restricts managers to act in the interests of shareholders. However, do managers operating in different cultural, legal and financial contexts act in the same way, as the literature suggests for developed countries? This is the question that may be generally raised by practitioners and academician. The answer to this question can only be provided through careful investigation and evidence based research. Further capital structure choice (leverage) and firm value is really an untouched issue in Nepalese context and this study has attempted to throw some light on that issue.

5.2 Empirical evidence on leverage and firm value

There exists conflicting theories on the relationship between capital structure and the value of the firm. The empirical literature on the relationship between leverage and firm value is extensive, but inconclusive. A large number of studies tried to see if there is any empirical relation between leverage and firm value. Some of the relevant studies relating to capital structure decisions and the value of the firm are summarized as follows:

I. Review of major literature before 2000

II. Review of major literature during 2000s to date

III. Concluding remarks

I. Review of major literature before 2000

Major findings of the studies relate to the effect of capital structure on firm value before 2000 have been presented in Table 5.1. Wippern (1966) examines the financial structure and the value of the firm. The author reports that existence of an optimal financial mix has not been established by the evidence. The optimum will occur at the

point where the marginal cost of debt funds is equal to the weighted average overall cost of capital. Another point which precludes conclusions regarding the point or range at which an optimum exists is that observations of the equity yield-leverage relationship will have to be made over the entire range of leverage levels, including extreme financial structures. The analysis reveals that a determination of the effects of capital structure on shareholder wealth is a problem of demand analysis. Normative analysis shows only that the use of fixed commitment financing by the firm can increase shareholder wealth, but in itself cannot prove that non-equity financing will or should improve the investor's position. The evidence of the effects of capital structure on the value of the firms included in the study provides support for the intermediate or traditional view that shareholder wealth is enhanced by the firm's judicious use of fixed commitment financing.

Sarma and Rao (1969) have tested the hypothesis of MM that, after allowing for the tax advantage from the interest paid on debt, the value of a firm is independent of its capital structure. All the coefficients of the leverage variable of their equation are significantly greater than the corporation income tax rates of the three years studied. Their result implies that debt has non-tax advantages also. They show the evidence in support of the conclusion that investors prefer corporate to personal leverage and, therefore, the value of a firm rises up to a leverage rate considered prudent.

Masulis (1980) has analyzed the impact of capital structure change announcements on security prices. Statistically significant price adjustments in firms' common stock, preferred stock and debt related to these announcements are documented and alternative causes for these price changes are examined. The evidence is consistent with both corporate tax and wealth redistribution effects. There is also evidence that firms make decisions which do not maximize stockholder wealth.

Franks and Pringle (1982) point out the role of financial intermediaries in the valuation of firms and projects. They show that security prices should reflect both used and unused debt capacity if some corporations can act as financial intermediaries and capture the tax benefits of debt capacity unused by the operating firm. They provide some reasons why the value of the firm might be increased if the financing

and operating risks of the firm are separated and financial intermediaries issue rather than the unit operating the asset.

Table 5.1
Major studies on effect of capital structure on firm value before 2000

Study	Major finding
Wippern (1966)	Normative analysis shows only that the use of fixed commitment financing by the firm can increase shareholder wealth.
Sarma and Rao (1969)	Investors prefer corporate to personal leverage and, therefore, the value of a firm rises up to a leverage rate considered prudent.
Masulis (1980)	Firms make decisions which do not maximize stockholder wealth.
Franks and Pringle (1982)	Security prices should reflect both used and unused debt capacity.
Masulis (1983)	Change in leverage is positively related to change in stock returns. Firm values are positively related to changes in firm debt level.
Jensen (1986)	Optimal debt-equity ratio is the point at which firm value is maximized.
Stulz (1990)	Debt can have both a positive and negative effect on the value of the firm.
Pandey (1992)	Initially, cost of capital and value of a firm are independent of the capital structure changes, but they rise after a certain level.
Hatfield, Cheng and Davidson (1994)	Market does not consider industry averages for leverage as discriminators for firms' financial leverage. Financial leverage is irrelevant to the value of the firm.
Berkivitch and Israel (1996)	Impact of debt on value of firms depends on the balance of power within a firm.
Fama and French (1998)	Firm value is positively related to dividends and negatively related to debt.
Kinsman and Newman (1999)	Relationships between leverage and some of the measures of performance such as a negative link with firm value and cash-flow.

Masulis (1983) has developed a model based on current corporate finance theories which explains stock returns associated with the announcement of issuer exchange offers. The major independent variables are changes in leverage multiplied by senior security claims outstanding and changes in debt tax shields. He studied daily stock returns of all companies that have gone through pure capital structure changes. He showed that change in leverage is positively related to change in stock returns. Further his evidence indicates that changes in firm values are positively related to changes in firm debt level. Likewise he argues further that when firms which issue debt are moving toward the industry average from below, the market will react more positively than when the firm is moving away from the industry average.

Jensen (1986) points out that debt may reduce the agency costs of free cash flow by reducing the amount of cash under management control. The optimal debt-equity ratio

is the point at which firm value is maximized, the point where marginal costs of debt just offset the marginal benefits.

Stulz (1990) argues that debt can have both a positive and negative effect on the value of the firm (even in the absence of corporate taxes and bankruptcy cost). He develops a model in which debt financing can both alleviate the overinvestment problem and the under investment problem. He assumes that managers have no equity ownership in the firm and receive utility by managing a larger firm. The "power of manger" may motivate the self-interested managers to undertake negative present value project. To solve this problem, shareholders force firms to issue debt. But if firms are forced to pay out funds, they may have to forgo positive present value projects. Therefore, the optimal debt structure is determined by balancing the optimal agency cost of debt and the agency cost of managerial discretion.

Pandey (1992) observes that MM theory is not fully valid under Indian conditions. He concluded that, initially, cost of capital and value of a firm are independent of the capital structure changes, but they rise after a certain level.

Hatfield, Cheng and Davidson (1994) have examined the hypothesis that when firms which issue debt are moving toward the industry average from below, the market will react more positively than when the firm is moving away from the industry average prior to announcing a new debt issue. The authors tested whether this has an effect on market returns for shareholders. Their overall conclusion is that the relationship between a firm's debt level and that of its industry does not appear to be of concern to the market. The high debt firms had significant negative market reactions for several intervals; however, the difference between this group and the low debt firms was not statistically significant. These results suggest, overall, that the market does not consider industry averages for leverage as discriminators for firms' financial leverage. Their study shows that the market does not appear to consider the relationship between a firm's leverage ratio and the industry's leverage ratio important. Their finding is consistent with the original Modigliani and Miller (1958) proposition that financial leverage is irrelevant to the value of the firm.

According to Berkivitch and Israel (1996) a firm's debt level and its value are positively related especially when shareholders have absolute control over the business of the firm and it is negatively related when debt holders have the power to influence the course of the business. The impact of debt on value of firms, therefore, depends on the balance of power within a firm. If shareholders have more power, a positive leverage will prevail and if debt holders have more power, a negative leverage would take place. He points out that the use of higher levels of debt in the capital structure leads to an increase or decrease in the return on shareholders' capital/ return on owner's equity.

Fama and French (1998) examine taxes, financing and firm value. They use cross-sectional regressions to study how a firm's value is related to dividends and debt. They conclude that with a good control for profitability, the regressions can measure how the taxation of dividends and debt affects firm value. Simple tax hypotheses say that value is negatively related to dividends and positively related to debt. They find the opposite. They infer that dividends and debt convey information about profitability (expected net cash flows) missed by a wide range of control variables. This information about profitability obscures any tax effects of financing decisions.
Kinsman and Newman (1999) have used various measures of performance on this issue on a sample of US firms, based on accounting or ownership information (firm value, cash-flow, liquidity, earnings, institutional ownership and managerial ownership). They perform regressions of leverage on this set of performance measures. Their conclusion is the existence of robust relationships between leverage and some of the measures of performance such as a negative link with firm value and cash-flow. However, this work has been criticized due to the use of much contested performance measures such as liquidity, but also with their joint inclusion in regressions, mixing their influence.

II. Review of major literature during 2000s to date

The summary review of the major findings of the studies related to the capital structure and firm value during 2000s has been shown in Table 5.2. Black (2001) has collected data from Russia and has found that a firm's corporate governance behavior can have a huge effect on its market value. Gemmill (2001) points out that under

some conditions capital structure does not affect the value of the firm. Splitting a fund into some mix of shares relating to debt, dividend and capital directly adds value to the company.

Harvey, Lins and Roper (2001) have found that the type of debt that positively impacts shareholder value is the type that closely monitors management. The combination of a sample of firms with extreme expected agency problems and detailed information on the different types of debt allows constructing powerful tests of whether debt can mitigate the effects of agency and information problems. Among other results, they find that the abnormal returns resulting from syndicated terms loans are significantly related to the extent of the separation of ownership and control. The results are consistent with the idea that debt creates value because it reduces the agency costs associated with overinvestment.

Babenko (2003) examines the state tax effect on optimal leverage and yield spreads to find out the optimal capital structure at the time of financial distress. A negative relationship exists between the ownership of shareholders with large blocks, on the one hand, and the degree of control, on the other hand, with regard to firm value, the second relationship being significant. However, endogenous treatment of these variables then reveals a positive effect for the ownership of the major shareholders on firm value.

Gompers *et al.* (2003) have used incidence of 24 governance rules to construct a "Governance Index" to proxy for the level of shareholder rights at about 1,500 large firms from the USA during the 1990s. The authors have found that the firms with stronger shareholder rights had higher firm value; that is, strong corporate governance improves the value of the firm.

In sharp contrast to some recent findings, in an issue of whether financial structure influences economic growth or not, using heterogeneous panel (Arestis and Luintel, 2004) have found that those firms having lower debt have higher value than the firms, which have high debt. Mak and Kusnadi (2005) have collected data from Singapore

and Malaysia, and have found a negative relationship between the board size and firm value.

Berger and Patti (2006) suggest that higher leverage, which is defined as total debts to total assets at book value, reduces the agency cost of outside equity and, therefore, increases firm value. Sharma (2006) suggests a direct correlation between financial leverage and firm value for firms in the manufacturing industry in India.

Aggarwal and Zhao (2007) have evaluated the relationship between leverage and value emphasizing on industry. The authors conclude that a portion of firm leverage related to leverage of that special industry has been considered and, in fact, effect of industry on leverage has been controlled in estimating the leverage-value relation. Finally, their results indicate a negative relationship between leverage and value in both high-growth and low-growth companies.

Qureshi (2007) concludes that financial structure with low leverage (debt) plays a significant role in maximizing firm value while short-term financial structure does not considerably affect value determination. Additionally, stable dividend policy is necessary to maximize firm value.

Ghosh and Ghosh (2008) have studied whether leverage affects dividend policy and profitability affects future firm value. They conclude that there is a non-linear relationship between leverage, profitability, and possibility of promoting future firm value. The higher the leverage, the lower the probability will be. While the higher the profitability rate and dividend payout ratio, the higher the probability.

Pattanayak (2008) has examined the effect of insider ownership on corporate value in India for the periods of 2000-2001 and 2003-2004, using 1833 Bombay stock Exchange listed firms. The author has found that firm value (measured by Tobin's Q) increases as ownership by insiders rises.

Table 5.2
Major studies on effect of capital structure on firm value during 2000s to date

Study	Major finding
Black (2001)	Firm's corporate governance behavior can have a huge effect on its market value.
Gemmille (2001	Under some conditions capital structure does not affect the value of the firm.
Harvey, Lins and Roper (2001)	Closely monitored debt positively impacts shareholder value. Debt creates value because it reduces the agency costs.
Babenko (2003)	Positive effect for the ownership of the major shareholders on firm value.
Gompers *et al.* (2003)	Strong corporate governance improves the value of the firm.
Arestis and Luintel, (2004)	Firms having lower debt have higher value than the firms, which have high debt.
Mak and Kusnadi (2005)	Negative relationship between the board size and firm value.
Berger and Patti (2006)	Higher leverage reduces the agency cost of outside equity and therefore, increases firm value.
Sharma (2006)	Direct correlation between financial leverage and firm value.
Aggarwal and Zhao (2007)	Negative relationship between leverage and value in both high-growth and low-growth companies.
Qureshi (2007)	Financial structure with low leverage (debt) plays a significant role in maximizing firm value.
Ghosh and Ghosh (2008)	Non-linear relationship between leverage, profitability, and possibility of promoting future firm value.
Pattanayak (2008)	Firm value (measured by Tobin's Q) increases as ownership by insiders rises.
Cheng, Liu and Chien (2010)	Relationship between leverage and firm value represents an inverted U-shape.
Chowdhury, and Chowdhury (2010)	Strong positively correlated association is evident between capital structure and firm value.
Muradoglu and Sivaprasad and (2010)	Capital structure is value relevant for equity investors. The optimal financial policy involves low leverage.
Adeyemi and Oboh (2011)	Market value of a firm is positively significantly influenced by its choice of capital structure.
Cheng & Tzeng (2011)	Leverage is significantly positively related to the firm value before reaching firm's optimal capital structure.
Gill and Mathur (2011a)	Board size negatively impact of firm value, and CEO duality, firm size, and return on assets positively impact the firm's value.
Rouf (2011)	Positive relationship between CEO duality and firm value.
Ruan, Tian, and Ma (2011)	Managerial ownership negatively impacts the ratio of total debt to total assets and the ratio of total debt to total assets negatively impacts firm value.
Ryu and Yoo (2011)	Positive relationship between firm value and inside management ownership.
Antwi, Mills and Zhao (2012)	Equity capital as a component of capital structure is relevant to the value of a firm, and Long-term-debt was also found to be the major determinant of a firm's value.
Collins, Filibus & Clement (2012)	Firms' leverage positively influences their market values.
Cuong and Canh (2012)	Optimal debt ratio (total debt to total assets ratio) of less than 59.27% enhances firm value.
Maxwell and Kehinde (2012)	Equity capital as a component of capital structure is irrelevant to the value of a firm, while Long-term-debt was found to be the major determinant of a firm's value.

Cheng, Liu and Chien (2010) have used the advanced panel threshold regression model to examine the panel threshold effect of leverage on firm value among 650

Chinese-listed firms from 2001 to 2006. The empirical results strongly indicate that triple-threshold effect exists between debt ratio and firm value. Besides, the coefficient is positive when debt ratio is less than 53.97%, which implies that debt financing can improve firm value. They conclude that the relationship between leverage and firm value represents an inverted U-shape. Debt financing should not be used unlimitedly; however, there is an optimal level beyond which, the\ increased debt does not have a better proportional firm value.

Chowdhury and Chowdhury (2010) have analyzed the relationship between capital structure and firm value in Bangladesh. Their study considers share price as proxy for value and different ratios for capital structure decision. They report that long term debt to total asset has the highest positive coefficient among other explanatory variables. This indicates that capital structure is the most influential variable for firm value. Long term debt to total asset indicates the portion of long term liability or credit on total firm's fixed assets. Taking debt to its capital structure one firm can increase the market value of share. The authors further assert that the portion of or the mix of long term debt to total assets may widely vary from company to company. They conclude that that by changing the capital structure composition a firm can increase its value in the market.

Muradoglu and Sivaprasad and (2010) point out that the negative relation may be attributed to the fact that firms may try to keep their leverage ratios low, in order to prevent their profits being used for interest payments, thus, leading to returns declining in leverage. Since the firm's capital structure is endogenous, the optimal financial policy involves low leverage, in order to mitigate agency problems, while at the same time preserving financial flexibility. They prove that capital structure is value relevant for equity investors, though the effect doesn't always move in the same direction. They find different effects of leverage on returns at different levels of analysis.

Adeyemi and Oboh (2011) have taken a sample size of 90 firms from Nigeria and they pointed out that the market value of a firm is positively significantly influenced by its choice of capital structure (financial leverage).

Cheng & Tzeng (2011) have applied the least square dummy variable to estimate the effect of leverage on firm values and contextual variables influencing on this relationship. Their study is based on using 645 companies listed in Taiwan Securities Exchange from 2000-2009. The empirical results show as follows: Firstly, the values of leveraged firm are greater than that of an un-leveraged firm if bankruptcy probability is not considered. Secondly, if the benefit and cost of debt is simultaneously considered, the leverage is significantly positively related to the firm value before reaching firm's optimal capital structure. Thirdly, the positive influence of leverage to the firm value tends to be stronger when the firm financial quality is better (i e., the greater Z-score).

Gill and Mathur (2011a) have taken a sample of 91 Canadian manufacturing firms listed on the Toronto Stock Exchange (TSX) for a period of three years (from 2008-2010) and have found that board size negatively impact of firm value, and CEO duality, firm size, while return on assets positively impact the firm's value.

Rouf (2011) has examined Bangladeshi firms and found a positive relationship between CEO duality and firm value. Ruan, Tian, and Ma (2011) have used data of Chinese firms and have found that managerial ownership negatively impacts the ratio of total debt to total assets and the ratio of total debt to total assets negatively impacts firm value. Ryu and Yoo (2011) have collected data from Korea and have found a positive relationship between firm value and inside management ownership.

Antwi, Mills and Zhao (2012) have provided the evidence on the impact of capital structure on a firm's value. The analysis has been implemented on all the 34 companies quoted on the Ghana Stock Exchange (GSE) for the year ended 31st December 2010. The ordinary least squares method of regression was employed in carrying out this analysis. The result of the study reveals that in an emerging economy like Ghana, equity capital as a component of capital structure is relevant to the value of a firm, and long-term-debt has also been found to be the major determinant of a firm's value.

Collins, Filibus & Clement (2012) have empirically examined the effect of a firm's capital structure on its market value. Dataset from 39 non-financial listed companies for the period of 2005-2009 have been used for analysis. Results from the regression analysis show a significant and positive relationship between non-financial firms' market values and their debt-equity ratios. Whereas, a negative relationship exists between a firm's total-debt/total-capital ratio and its market value, its size positively affects its market value. They conclude that firms' leverage positively influences their market values.

Cuong and Canh (2012) have used a data set that includes a combination of seafood processing enterprises listed on two of Vietnam's stock exchange markets from 2005-2010. The authors have found that the optimal debt ratio (total debt to total assets ratio) of less than 59.27% enhances firm value.

Maxwell and Kehinde (2012) conclude that in an emerging economy like Nigeria, equity capital as a component of capital structure is irrelevant to the value of a firm, while Long-term-debt was found to be the major determinant of a firm's value. They also advise the corporate financial decision makers to employ more of long-term-debt than equity capital in financing corporate operations since it results in a positive firm value.

III. Concluding remarks

Financing decisions are one of the most critical areas for finance managers. It has direct impact on capital structure and firm value of the companies. It is a topic that continues to keep researchers pondering. Researchers continue to analyze capital structures and try to determine whether optimal capital structures exist. An optimal capital structure is usually defined as one that will minimize a firm's cost of capital, while maximizing shareholder's wealth. Hence, capital structure decisions can have great impact on the value of the firm.

Exactly how firms choose the amount of debt and equity in their capital structures remains an enigma. Are firms mostly influenced by the traditional capital structures of their industries or are there other reasons behind their actions? The answers to these

questions are very important, because the actions of managers will affect the value of the firm, as well as will influence how investors perceive the firm. Much of the theory in corporate sector is based on the assumption that the goal of a firm should be to maximize the wealth of its current shareholders.

Related to the issue on the effect of capital on firm value, some researchers like Masulis (1983), Chowdhury and Chowdhury (2010), Adeyemi and Oboh (2011), Cheng & Tzeng (2011), Collins Filibus & Clement (2012) have concluded that value of a firm is positively significantly influenced by its choice of capital structure. On the other hand Aggarwal and Zhao (2007) assert that value of the firm and leverage is negatively related. Mak and Kusnadi (2005) report the negative relationship between the board size and firm value. Cheng, Liu and Chien (2010) point out that relationship between leverage and firm value represents an inverted U-shape. Gemmille (2001) concludes that under some conditions capital structure does not affect the value of the firm. Further Chowdhury and Chowdhury (2010) report that firm value (price) and operating leverage has negative coefficient.

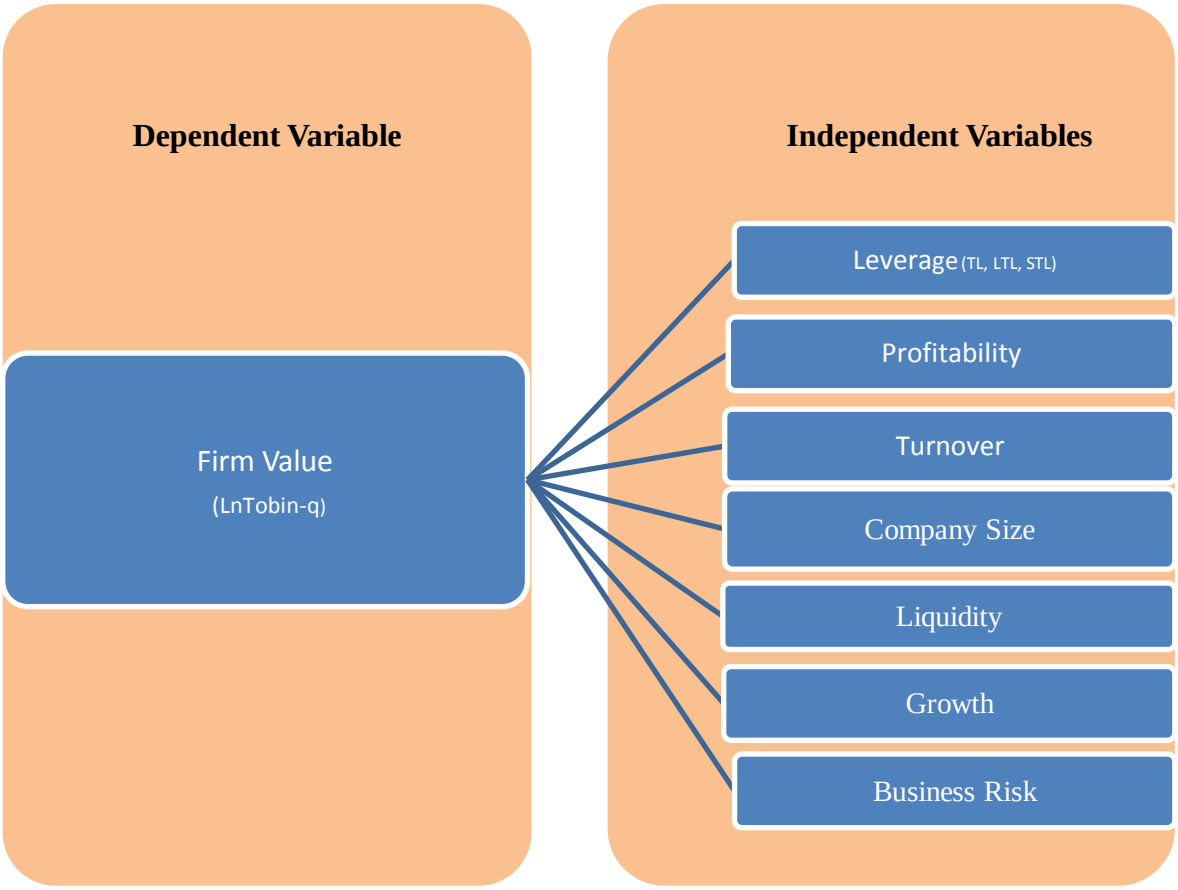
Early and recent empirical studies on the relationship between capital structure and firm value mainly focus on the developed capital market. All these studies have helped understand the dynamics of this crucial issue better but have not been able to come up with a definite conclusion as to how firms determine capital structure that maximize firm value. So the present study has been planned to make another attempt to resolve this contentious issue. Further, the relationship between firm value and capital structure has not been empirically resolved in the Nepalese context. In this study these conflicting hypotheses will be tested arising from the literature regarding the association between non-financial firms' capital structure and their firm value.

In addition to capital structure (leverage), firm value is likely to be affected by profitability, turnover, company size, liquidity, growth and business risk. It is theoretically supported that profitable firms are generally better managed and thus are expected to be more efficient then should have more firm value. Chowdhury and Chowdhury (2010) have also found that firm value (price) is positively correlated with fixed assets turnover and liquidity (current ratio) and negatively related to sales

growth and operating leverage (business risk). Firm size is expected to be negatively related to the firm value (q) as suggested by the literature of firm-size effect (Banz, 1981).

Based on the review of related empirical studies, a finalized conceptual model has been constructed. This model specifies that the firm value is a function of capital structure, profitability, turnover, company size, liquidity, growth and business risk. The conceptual framework has been depicted in Figure 5.1. This framework is taken as land mark for developing the model of the study.

Figure 5.1
Conceptual framework of capital structure and firm value



5.3 Research methodology

I. Selection of enterprises

For the purpose of this study, eighteen listed non-financial Nepalese companies have been selected for the period of 1998-2012. The selected enterprises are presented in

Table 5.3.

Table 5.3
Enterprises selected for the study

This table shows the details of the organizations selected, nature of industry, period covered and number of observations for secondary data analysis.

Ser. No	Name of the Company	Nature of Industry	Period Covered (Year in A.D)	Observations
1	Bottlers Nepal Limited (Balaju)	Manufacturing	2004-2012	9
2	Nepal Lube Oil Limited	Manufacturing	2005-2011	7
3	Bottles Nepal (Tarai) Limited	Manufacturing	2002-2012	11
4	Unilever Limited	Manufacturing	2003-2012	10
5	Gorakhkali Rubber Udyog Ltd.	Manufacturing	2005-2011	7
6	Himalayan Distillery Limited	Manufacturing	2003-2012	10
7	Bishal Bazaar Co Ltd.	Trading	2003-2011	9
8	Khadya Udyog Ltd.	Manufacturing	2005-2011	7
9	Nepal Bitumen & Barrel Udyog Ltd.	Manufacturing	2005-2011	7
10	Nepal Banaspati Ghieu Udyog Ltd.	Manufacturing	2005-2011	7
11	Salt Trading Corporation	Trading	1998-2011	14
12	Fleur Himalayan Ltd.	Manufacturing	2005-2011	7
13	Shree Ram Sugar Mills	Manufacturing	2005-2011	7
14	Shree Raghupati Jute Mills Ltd.	Manufacturing	2005-2011	7
15	Soaltee Hotel Ltd.	Hotel	2003-2012	10
16	Yak and Yeti Hotel Ltd.	Hotel	2005-2011	7
17	Oriental Hotels Ltd.	Hotel	2003-2012	10
18	Taragaun Regency Hotel Ltd.	Hotel	2003-2011	9
	Total			155

Out of eighteen enterprises, twelve are manufacturing, six are from non-manufacturing (ie. four are from hotels and two are trading companies) enterprises listed in Nepal Stock Exchange. The sample enterprises are selected using stratified random sampling technique. Out of 155 observations available for the analysis, 96 observations are from manufacturing strata and 59 observations from non-manufacturing strata. Firms relating to service sector and others like banking and finance, insurance, hydropower etc. are excluded in this study because of specific nature of their activities.

II. Nature and sources of data

Secondary data have been used in this study for measuring the effect of leverage on firm value. These data have been collected from the office of the Auditor General (Annual Reports), Nepal Stock Exchange (Financial statements of listed companies),

Ministry of Finance (Performance report of Government Corporation and Economic Survey) and Security Board of Nepal. Other relevant data have also been collected from concerned companies selected for the purpose of the study. Some of the valuable information about the leverage and corporate profitability has also been obtained from the concerned authorities of selected enterprises, asking and interacting with them individually.

III. Method of analysis

1. Descriptive statistics

This part of the study has used descriptive statistics to describe and understand the basic features of the data, because it provides simple summaries about the sample and the measures. The descriptive statistics include percentage, mean, median, standard deviation and quartile. The results in each variable have been described comprehensively. The significance of the results has been dwelt upon.

2. Correlation analysis

Correlation analysis is a statistical tool that has been used in this study to point out the degree to which one variable is linearly related to another. In this part, Pearson correlation coefficients for all variables are considered. This analysis tries to find out the relationship between firm value measures and the measures of leverage with control variables. The priori hypothesis in this analysis is that there is strong relationship between firm value and measures of leverage in Nepalese listed companies.

3. The Model

This section examines the effect of capital structure (leverage) on firm value using the approach adopted by Wippern (1966), Sarma and Rao (1969), Adelegan (2007) and Chowdhury and Chowdhury (2010). Leverage is used as explanatory variable and likely profitability, turnover, company size, liquidity, growth, and business risk are used as control variables, and firm value (LnTobin-q) is considered as the dependent variable. Although total assets and sales can be used for deflating the variables, but as in their study total assets were used as the deflator. The growth rate of total assets or of fixed assets or of earnings growth or sales growth could be used as the growth

variable. Unlike Sarma and Rao (1969), the total assets growth rate was chosen as the growth variable because this would take into account as precise growth of the firm in Nepalese Context. The main problem of choosing earnings growth as growth variable in Nepalese context is impractical because most of the firms are reporting loss (i.e. negative earnings). In the presence of negative earnings, growth of total assets, rather than earnings, gives a proper picture of growth potential of a firm. Like Sarma and Rao (1969), debt level (leverage) has been introduced as a separate independent variable. Since the purpose of this study is to examine the impact of leverage, with other covariates, on firm value the analysis is directed to test the following models:

$$\text{LnTobin-}q_{it} = B_0 + B_1\, TL_{it} + B_2\, PROF_{it} + B_3\, TURN_{it} + B_4\, Lnasset_{it} + B_5\, LIQU_{it} + B_6\, AGROW_{it} + B_7\, BRISK_{it} + \varepsilon_{it} \quad (1)$$

$$\text{LnTobin-}q_{it} = B_0 + B_1\, LTL_{it} + B_2\, PROF_{it} + B_3\, TURN_{it} + B_4\, Lnasset_{it} + B_5\, LIQU_{it} + B_6\, AGROW_{it} + B_7\, BRISK_{it} + \varepsilon_{it} \quad (2)$$

$$\text{LnTobin-}q_{it} = B_0 + B_1\, STL_{it} + B_2\, PROF_{it} + B_3\, TURN_{it} + B_4\, Lnasset_{it} + B_5\, LIQU_{it} + B_6\, AGROW_{it} + B_7\, BRISK_{it} + \varepsilon_{it} \quad (3)$$

Where: LnTobin-q = Value of a firm = Natural logarithm of the market value of equity and the sum of the book value of long-term debt and total short-term or current liabilities to the book value of its net assets.

TL = Total leverage = Total debt divided by total assets

LTL = Long-term leverage = Long term debt divided by total assets

STL = Short-term leverage = Short-term debt divided by total assets

PROF = Profitability = Earnings before interest and taxes divided by total assets

TURN = Turnover = Sales divided by total assets

Lnasset = Company size = Natural logarithm of total assets.

LIQU = Liquidity = Current assets divided by current liabilities

AGROW = Assets growth = Annual growth rate in total assets

BRISK = Business risk = Percentage change in earnings before interest and taxes to percentage change in sales (degree of operating leverage).

4. Specification of variable and hypotheses

Studies embarking on analyzing the effect of capital structure on firm value do not seem to have reached conclusive results. Their findings are either contradictory, or statistically insignificant. For example, while the correlation of a factor can be positive in one study it can be negative in another. Furthermore, what could be

applied to developed countries might not be applicable to less developed nations.

According to the Adeyemi and Oboh (2011), the market value of a firm is positively significantly influenced by its choice of capital structure. More specifically, there is a significant positive effect of long-term financial leverage on the market value of a firm as suggested by other research studies as in Modigliani and Miller (1963) and Mollik (2008) among others, but in sharp contrast to the pecking order theory as propounded by Donaldson (1961), which assumes a firm's capital structure as irrelevant to its market value and that a firm's choice of capital structure should follow a well defined order, starting with internal funds, then debt and finally equity capital.

This study has mainly examined the relationship existing between the choice of capital structure of a firm and its market value. To control for other factors that might affect firm value, a regression framework has been designed with several control variables that are plausibly related to differences in risk across firms. There are, apparently, many other factors that influence a firm's market value other than its choice of capital structure in the real world. Prior researches have shown that other factors have significant relationship with firms' market values. Other factors that as well influence firms' market values include: growth potential or future investment opportunity (Myers, 1984; Titman and Wessels, 1988; Harris and Raviv, 1991); dividend policy (Miller and Modigliani, 1961; Gordon, 1967); the size of a firm (Gordon, 1962); the kind of risk a firm is exposed to as well have some influence on its market valuation.

As argued by Titman and Wessels (1988) and Harris and Raviv (1991), the choice of the underlying explanatory variables is fraught with difficulty. This is why different researchers have considered different key variables in their respective studies. However, most of the published studies have considered leverage, profitability, turnover, company size, liquidity, assets growth and business risk as the determinants of the firm value. Moreover, the selection of the variables (dependent and independent) is primarily guided by the results of the previous empirical studies and the availability of data. The explanatory variable selected for this study is capital

structure (leverage) and the control variables chosen are: profitability, turnover, company size, liquidity, assets growth and business risk.

A. Leverage

Capital structure (leverage) is represented by the ratio of long term debt to total assets. Leverage can also be measured as the ratio of total liabilities to total assets, and the book-to-market ratio, measured as the book value of equity divided by the market value of equity. As an alternative approach, leverage can be measured as the ratio of fixed charges to minimum expected income in order to avoid the conceptual and statistical biases of the debt: equity ratio measure. Rajan and Zingales (1995) have indicated that the most suitable debt ratio relies on the purpose of the analysis. For listed Nepalese firms, the decomposition of total debts into long-term and short-term debt may be desirable for the following reason as explained. Diamond (1991, 1993), Rajan (1992) and Demirguc- Kuniand and Maksimovic (1999) have indicated that firms in emerging countries rely mainly on short-term debt. Three measures of leverage will be used in this study. The first measure of leverage divides total liabilities by total assets. The second measure divides long-term debt by total assets. Third measure divides short-term debt to total assets. Short-term debt is defined as the portion of the company's total debt repayable within one year. This includes bank overdraft, bank loans payable within a year and other current liabilities. Long-term debt is the company's total debt repayable beyond one year. This includes long-term bank loans and other long-term liabilities repayable beyond one year such as directors' loans, hire purchase and leasing obligations. The total debt includes short-term debt and long-term debt.

A principal undesirable effect of financial leverage referred to in the literature is that it increases the variability of the income stream to the stockholder. The degree of variability in the earnings stream before financing charges is consistently cited as a major determinant of the amount of fixed charge financing that may safely be under-taken by the firm.

Muradoglu and Sivaprasad (2010) have proved that capital structure is value relevant for equity investors, though the effect doesn't always move in the same direction.

Masulis (1983) has shown that change in leverage is positively related to change in stock returns. Bhandari (1988) has also provided evidence that leverage has a significant positive effect on expected common stock returns.

In their seminal articles, Modigliani and Miller (1958 and 1963) demonstrate that, in a frictionless world, financial leverage is unrelated to firm value, but in a world with tax-deductible interest payments, firm value and capital structure are positively related. Miller (1977) adds personal taxes to the analysis and demonstrated that optimal debt usage occurs on a macro-level, but it does not exist at the firm level. Interest deductibility at the firm level is offset at the investor level. Myers (1984) suggests that as a firm's value related to intangible assets increases (decreases), the level of debt decreases (increases).

Ross's (1977) model suggests that the values of firms will rise with leverage, since increasing the market's perception of value. Leland and Pyle (1977) report that managers will take debt/equity ratio as a signal, by the fact that high leverage implies higher bankruptcy risk (and cost) for low quality firms. Since managers always have information advantage over the outsiders, the debt structure may be considered as a signal to the market. In the case of there being no agency problem, management acts in the interest of all shareholders. The manager will maximize company value by choosing the optimal capital structure; highest possible debt ratio. High-quality firms need to signal their quality to the market, while the low-quality firms' managers will try to imitate. According to this argument, the debt level should be positively related to the value of the firm.

Stulz (1990) argues that debt can have both a positive and negative effect on the value of the firm (even in the absence of corporate taxes and bankruptcy cost). He developed a model in which debt financing can both alleviate the overinvestment problem and the impact of capital structure on firm's value. Given these opposing theories, it is not surprising that the large empirical literature on leverage and firm value measured by performance has produced mixed results. For example, Kyerboach-Coleman (2007) points out that capital structure has a positive impact on performance of microfinance institutions. Berger and Bonaccorsi di Patti (2006)

suggest that higher leverage, which is defined as total debts to total assets at book value, reduces the agency cost of outside equity and, therefore, increases firm value. These empirical results are also consistent with Abor (2005), Mollik (2005), Peterson and Rajan (1994) and Bos and Fetherston (1993), who have discovered that there is a positive association between leverage and performance. However, some studies have found a negative association between leverage and performance (value) such as Friend and Lang (1988), Barton *et al.* (1989), Michaels *et al.* (1999) and Booth *et al.* (2001).

Several studies like Masulis (1983), Chowdhury and Chowdhury (2010), Adeyemi and Oboh (2011), Cheng & Tzeng (2011), Collins Filibus & Clement (2012) provide the evidence that value of a firm is positively significantly influenced by its choice of capital structure. Consistent with the most of past empirical studies, it is hypothesized that relationship between capital structure (leverage) and firm value should be positive.

B. Profitability

Profitability is measured by the ratio of profits (EBIT) to total assets (e.g. Fama and French 2002, Titman and Wessels 1988). The earnings before interest and taxes divided total assets (PROF) ratio is a measure of the true productivity of the firm‘s assets, independent of any tax or leverage factors. Since a firm‘s ultimate existence is based on the earnings power of its assets. Furthermore, insolvency in a bankrupt sense occurs when the total liabilities exceed a fair valuation of the firm‘s assets with value determined by the earning power of the assets. It may also be viewed as the indicator of earnings gained from the total funds through debts and equities financing, the larger this ratio, the more effect on assets turnover and operation management. In general, more profitable firms are generally better managed and thus are expected to be more efficient then should have more value. Hence, profitable firms are more likely to have higher firm value than less profitable firms. Thus, it hypothesized that relationship between profitability and firm value should be positive.

C. Assets turnover

An asset turnover has been used in the model to show the effect of firm's efficiency

on firm value. The assets turnover can be computed as sales divided by total assets. However, Chowdhury and Chowdhury (2010) report that efficiency is measured through fixed asset turnover and they discover that firm value (price) is positively correlated with fixed assets turnover. In this study total assets turnover has been used as proxy for assets turnover. It is theoretically justified that higher efficiency leads to better profitability and higher profitability can eventually enhance firm value. Thus, consistent to the findings of Chowdhury and Chowdhury (2010), it is hypothesized that relationship between total asset turnover and firm value should be positive.

D. Company size

The size, according to which a firm is defined as a small and medium enterprise or as a large-sized enterprise, can be determined using a variety of variables (e.g. employment, sales volume, assets or qualitative categories such as independent ownership or management). Firm size can be represented by share capital. Size may be defined as the book value of net plant at the end of the cross-sectional year. Different measurements for firm size have been employed in most prior empirical studies. For instance, Hamson (1992) has used the natural logarithm of the sum of the fair value of equity and the book value of liabilities, the natural logarithm of total assets has been employed by Gul and Tsui (1998) and the natural logarithm of sales as used by Titman and Wesseles (1988).

In this study the natural logarithm of total assets (lnasset) has been employed as an indicator of size because it is reliable, accessible and can be used readily for comparison purposes. The size of the firms has been included in the regression model as a control variable in order to bring the study to a logical conclusion and natural logarithm of total assets are also employed to control for changes in firm size over time. Firm size is expected to be negatively related to the firm value (q) as suggested by the literature of firm-size effect (Banz, 1981). The negative relation is also supported by findings of McConnell and Servaes (1990). Based on past major studies, it is hypothesized that relationship between company size and firm value should be negative.

E. Liquidity

Liquidity is generally measured by current ratio. It is calculated as dividing current assets by current liabilities. Chowdhury and Chowdhury (2010) have also reported that liquidity is measured by current ratio. They have found that firm value (price) is positively correlated with liquidity (current ratio). In line with Chowdhury and Chowdhury (2010), it is hypothesized that relationship between liquidity and firm value should be positive.

F. Assets growth

Sarma and Rao (1969) take the earnings growth rate as the growth variable because this would take into account growth of earnings due both to the utilization of existing capacity and to the addition of new capacity. Chowdhury and Chowdhury (2010) report that growth rate is noted through sales growth rate. They discover negative relationship between firm value and sales growth but the coefficient is insignificant. Annual growth rate in assets, capital expenditures over total assets can also be used as a proxy for growth variable. While there are many alternative growth measures, annual growth rate in total assets has been chosen as growth variable because earnings growth and sales growth do not report significant change as compared to assets growth in Nepalese data. Jensen (1986) asserts that the issuance of debt by low growth firms provides a device for monitoring and controlling managers by determining the market reaction to debt issuance by firm's with different growth rates. It is expected to find a positive reaction in the market for low growth firms that announce a debt issue. Based on past empirical studies, a negative relationship is expected between growth rate and firm value. Thus, it is hypothesized that relationship between assets growth rate and firm value should be negative.

G. Business risk

A proxy risk variable has been admitted to the analysis as an adjustment for basic business risk, thus permitting tests of the firm value and leverage relationship among firms from different industries. The inclusion of this proxy risk measure made it unnecessary to adopt any assumptions about risk-equivalence within industry classes. Business risk of the firm is measured by its degree of operating leverage. This equals the percentage change in earnings before interest and taxes over the percentage

change in sales. Chowdhury and Chowdhury (2010) report that firm value (price) and operating leverage has negative coefficient. Operating leverage shows the extent to which a firm has fixed burden. If any firm has high fixed cost or operating leverage then a little change in sales price will adversely affect the profitability of any firm. Low operating leverage gives any firm flexibility. So by reducing operating leverage any firm can increase its value. Thus, it is hypothesized that relationship between business risk and firm value should be negative.

Table 5.4 summarizes the capital structure (leverage) along with control variables affecting firm value and their expected relationships.

Table 5.4
Effect of capital structure on firm value along with priori hypothesis

Variables	Definitions	Relation with firm value
Leverage (TL, LTL, STL)	TL: total debt to total assets; LTL: long-term debt to total assets; STL: short-term debt to the total assets.	Positive
Profitability (PROF)	Earnings before interest and taxes divided by total assets.	Positive
Turnover (TURN)	Sales divided by total assets.	Positive
Company Size (Lnasset)	Natural logarithm of total assets.	Negative
Liquidity (LIQU)	Current assets divided by current liability.	Positive
Growth (AGROW)	Change in total assets divided by total assets.	Negative
Business Risk (BRISK)	Percentage change in earnings before interest and taxes to percentage change in sales (degree of operating leverage).	Negative

5.4 Data analysis and results

5.4. 1 Descriptive statistics

Table 5.5 gives the detail of descriptive statistics of the variables used in the analysis. The third column of table shows the mean of the variables including LnTobin-q, total leverage, long term leverage, short-term leverage, profitability, total assets turnover, Lnasset, liquidity, assets growth and business risk. The respective mean values are: 0.491, 0.937, 0.221, 0.715, 0.074, 0.868, 20.127, 0.876, 0.158 and -523.373. The debt to total assets ratio (TL) has been used as one of the proxy for capital structure in this study. The TL ratio of 0.937 shows that, on an average, Nepalese sample companies' finance 93.7 percent of total assets by debt capital. Implying that, most non-financial firms in Nepal are high-geared companies.

The fourth column of the table explains the standard deviation of the given variables. The fifth and sixth columns give details of the minimum and maximum values the given variables respectively. The percentile values of the variable have been shown at the last column of the table.

Table 5.5
Descriptive statistics of dependent and independent variables (n=155)

Variables	Scale	Mean	Std. Dev.	Minimum	Maximum	Percentiles		
						25	50	75
LnTobin-q	Ln	0.491	0.614	-0.538	2.429	0.027	0.405	0.793
TL	Ratio	0.937	0.735	0.240	4.110	0.580	0.730	0.930
LTL	Ratio	0.221	0.354	0.000	2.960	0.000	0.070	0.330
STL	Ratio	0.715	0.721	0.100	3.790	0.360	0.530	0.730
PROF	Ratio	0.074	0.132	-0.190	0.530	0.000	0.050	0.100
TURN	Ratio	0.868	0.721	0.000	5.908	0.429	0.713	1.134
Lnasset	Ln	20.127	1.188	17.681	22.331	19.139	20.337	20.883
LIQU	Ratio	0.876	0.693	0.052	4.415	0.396	0.774	1.109
AGROW	Ratio	0.158	0.795	-0.878	9.440	-0.031	0.065	0.197
BRISK	Ratio	-523.373	6496.644	-80882.120	203.607	-1.272	0.702	3.068

Source: Annual report of sample companies

5.4. 2 Leverage and firm value-all sample

A. Relationship between leverage and firm value

A part of the procedure for analysis in this study, a correlation was performed in order to establish relationship among all the variables of interest. Output of correlation analysis (Table 5.6) is represented in matrix of pair-wise Pearson correlation. It has been found that firm value (LnTobin-q) is significantly positively correlated with total leverage, short-term and profitability but it is significantly negatively correlated with size (Lnasset), liquidity. An examination of Table 5.6 shows that the highest correlated variable of the firm value (LnTobin-q) is profitability (PROF), having a correlation coefficient of 0.528 and it is significant at a 0.01 level of significance ($P<0.01$). The result indicates that firm value (LnTobin-q) is mostly depends on profitability. While the next correlated variable to the firm value (LnTobin-q) is the short-term leverage (STL) with a correlation coefficient of 0.3.66 and significant at a 0.01 level of significance. Firm value (LnTobin-q) and size (Lnasset) has significant negative correlation of -0.361. This means firm value (LnTobin-q) and size are inversely related.

Analysis among the independent variables shows that there is maximum correlation coefficient 0.882 between STL and TL. These two variables are individually used in the regression, thus it may not cause multicollinearity. With regard to the analysis among other independent variables, the correlation coefficients are found less than 0.531, hence indicating that there is an absence of multicollinearity. It can be inferred from the analysis that none of the variables are perfectly correlated or inversely correlated. Each and every variable has some relationship with each other.

Table 5.6
Correlation coefficients of variables (n=155)

Variables	Ln Tobin-q	TL	LTL	STL	PROF	TURN	Lnasset	LIQU	AGROW	BRISK
LnTobin-q	1									
Tl	.309**	1								
LTL	-0.104	.279**	1							
STL	.366**	.882**	-.206*	1						
PROF	.528**	-.267**	-0.137	-.204*	1					
TURN	0.04	-0.043	.188*	-0.135	.422**	1				
Lnasset	-.361**	-.383**	.287**	-.531**	0.111	-0.032	1			
LIQU	-.217**	-.339**	-0.026	-.332**	.191*	.256**	0.137	1		
AGROW	-0.075	-0.06	0.04	-0.081	0.014	0.017	0.115	.353**	1	
BRISK	-0.008	-0.038	-0.05	-0.013	0.119	0.007	-0.012	0.068	-0.011	1

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

B. Effect of leverage on firm value-all sample

Statistical analysis based on estimated least square regression identifies the relationship between capital mix and firm value, also considering the effect of the profitability, turnover, firm size, liquidity, assets growth and business risk. In Model - 1, debt to total assets ratio has a positive and significant relation with firm value i.e. as a firm's debt level increases its firm value is expected to increase. The regression results reported in the Table 5.7 Model-1, suggest that profitability is significantly positively related to firm value, whereas turnover, company size and liquidity are negatively related to firm value. Except company size and business risk, all the variables are significant at 1 percent level of significance. R-square value in the Model-1 explains about 66 percent of the variations in the dependent variable (LnTobin-q) can be explained by independent variables. Although debt to total assets

ratio (TL) is positively and significantly associated with firm value, its coefficient is smaller than profitability. This may be so due to a number of reasons including accounting practices of firms, smaller sample size and also the choice of sample period (1998 to 2012).

Table 5.7
Regression results of leverage and firm value-all sample

LnTobin-q= 3.492 + 0.284 TL +3.706 PROF- 0.216 TURN – 0.161 Lnasset -0.134 LIQU +0.021 AGROW + 0.000 BRISK (1)
LnTobin-q= 5.559 + 0.314 LTL +3.607 PROF- 0.236 TURN - 0.250 Lnasset - 0.209 LIQU + 0.038 AGROW + 0.000 BRISK (2)
LnTobin-q= 3.257 + 0.242 STL + 3.458 PROF - 0.169 TURN – 0.145 Lnasset - 0.163 LIQU + 0.029 AGROW + 0.000 BRISK (3)

Predictors	Model-1 (LEV =TL)			Model-2 (LEV = LTL)			Model-3 (LEV = STL)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	3.492	0.000		5.559	0.000		3.257	0.000	
LEV	0.284	0.000	1.386	0.314	0.002	1.269	0.242	0.000	1.580
PROF	3.706	0.000	1.339	3.607	0.000	1.385	3.458	0.000	1.279
TURN	-0.216	0.000	1.313	-0.236	0.000	1.454	-0.169	0.001	1.297
Lnasset	-0.161	0.000	1.190	-0.250	0.000	1.197	-0.145	0.000	1.435
LIQU	-0.134	0.009	1.400	-0.209	0.000	1.281	-0.163	0.002	1.370
AGROW	0.021	0.606	1.169	0.038	0.378	1.160	0.029	0.494	1.166
BRISK	0.000	0.097	1.023	0.000	0.137	1.023	0.000	0.110	1.023
	R^2 = 0.660; Adj.R^2 = 0.644 F-value = 40.746; F(sig) = 0.000			R^2 = 0.603; Adj.R^2 = 0.584 F-value = 31.832; F(sig) = 0.000			R^2 = 0.628; Adj.R^2 = 0.610 F-value = 35.408; F(sig) = 0.000		

Significant at the 0.01 level (2-tailed).
Significant at the 0.05 level (2-tailed).

In Model -2, long-term debt to total assets ratio (capital structure) has a positive and significant relationship with firm value. It is statistically significant at 1 percent level of significant. It indicates that long-term leverage significantly affects the firm value. In the same table Model-2, displays that profitability is also significantly positively related to firm value whereas turnover, company size and liquidity are negatively and significantly related to firm value. Assets growth and business risks are insignificant and thus they have no significant effect on firm value. R-square value in the Model-2 explains about 60 percent of the variations in the dependent variable (LnTobin-q).

In the third regression model (Model-3), short-term leverage (STL) and profitability have positive and statistically significant coefficients with firm value. The results indicate that profitable firm with higher leverage position should have higher firm value. Whereas turnover, company size, liquidity have negatively significant coefficients with firm value. These coefficients are significant at 1 percent level of significance. The results indicate that turnover, company size and liquidity negatively affect firm value. R-square value of 0.628 (Model-3) indicates that about 63 percent

of the variations in the dependent variable (LnTobin-q) can be explained by independent variables. VIF values in three models displayed in Table 5.7 are less than (i.e. VIF < 2). It indicates that the estimated regression equations are free of multicollinearity.

5.4. 3 Leverage and firm value-manufacturing sample

A. Relationship between leverage and firm value-manufacturing sample

As displayed by the correlation matrices in Table 5.8, the dependent variable i.e. firm value (LnTobin-q) is significantly positively correlated with two leverage variables (total leverage, short-term leverage) and profitability but it is significantly negatively correlated with liquidity. The result indicates that these four variables out of nine are the influencing variables on firm value.

Table 5.8
Correlation coefficients of variables-manufacturing samples

Variables	LnTobin-q	TL	LTL	STL	PROF	TURN	Lnasset	LIQU	AGROW	BRISK
LnTobin-q	1									
Tl	.593**	1								
LTL	-0.011	0.114	1							
STL	.592**	.960**	-0.169	1						
PROF	.334**	-.333**	-.252*	-.259*	1					
TURN	-0.084	-.484**	-0.175	-.431**	.630**	1				
Lnasset	0.11	-.470**	.262**	-.541**	.505**	.281**	1			
LIQU	-.295**	-.674**	-.280**	-.590**	.371**	.220*	.274**	1		
AGROW	-0.053	-0.089	-0.053	-0.074	0.02	0.156	.235*	-0.027	1	
BRISK	-0.019	-0.03	-0.133	0.009	0.132	0.032	-0.053	0.126	-0.072	1

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

Inter-relationships between the independent variables, are not so high (i.e. r < 0.70) except for total leverage and short-term leverage (r = 0.960). This, however, does not pose any statistical problems since the models were specified separately for the three leverage variables (total leverage, long-term leverage and short-term leverage). This indicates the absence of a multicollinearity problem, which is good news for performing a multiple regression analysis.

An examination of Table 5.8 shows that the highest correlated variable of the firm value (LnTobin-q) is total leverage having a correlation coefficient of 0.593 and it is

significant at a 0.01 level of significance (P<0.01). The next correlated variable to the firm value (LnTobin-q) is the short-term leverage (STL) with a correlation coefficient of 0.592 and significant at a 0.01 level of significance. The significant relationship of two leverage variables with firm value indicates that capital structure affects positively to firm value. It can be asserted from the analysis that none of the variables are perfectly correlated or inversely correlated. Each and every variable has some relationship with each other but these variables are free from severe multicollinearity problem.

B. Effect of leverage on firm value- manufacturing sample

Table 5.9 reports the regression results on capital mix and firm value, while considering the effect of the profitability, assets turnover, firm size, liquidity, assets growth and business risk in manufacturing samples. As evidenced from the Model 1 and Model 3 total debt to total assets ratio (TL) and short-term debt to total assets ratio (STL) have positive and significant relation with firm value (LnTobin-q) i.e. as a firm's debt level increases its firm value is expected to increase. Unlike all sample the negative and insignificant coefficient is found for long-term leverage (LTL). It indicates that long-term leverage does not significantly affect firm value in manufacturing firms.

Table 5.9
Regression results of leverage and firm value-manufacturing sample

LnTobin-q= -2.614 + 0.503 TL +1.675 PROF- 0.034 TURN + 0.124 Lnasset + 0.071 LIQU – 0.080 AGROW + 0.000 BRISK (1)

LnTobin-q= 1.534 – 0.023 LTL + 2.877 PROF- 0.373 TURN – 0.023 Lnasset – 0.464 LIQU + 0.006 AGROW + 0.000 BRISK (2)

LnTobin-q= -3.581 + 0.479 STL + 1.330 PROF – 0.040 TURN + 0.183 Lnasset – 0.022 LIQU – 0.170 AGROW + 0.000 BRISK (3)

Predictors	Model-1 (LEV =TL)			Model-2 (LEV = LTL)			Model-3 (LEV = STL)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	-2.614	0.001		1.534	0.101		-3.581	0.000	
LEV	0.503	0.000	3.258	-0.023	0.902	1.581	0.479	0.000	3.131
PROF	1.675	0.000	2.850	2.877	0.000	2.696	1.330	0.000	3.224
TURN	-0.034	0.604	2.581	-0.373	0.000	1.751	-0.040	0.548	2.585
Lnasset	0.124	0.000	1.974	-0.023	0.642	2.113	0.183	0.000	2.454
LIQU	0.071	0.390	2.387	-0.464	0.000	1.317	-0.022	0.776	2.040
AGROW	-0.080	0.463	1.136	0.006	0.969	1.193	-0.170	0.134	1.165
BRISK	0.000	0.349	1.055	0.000	0.450	1.056	0.000	0.311	1.055
	R^2 = 0.729; Adj.R^2 = 0.708 F-value = 33.893; F(sig) = 0.000			R^2 = 0.471; Adj.R^2 = 0.429 F-value = 11.200; F(sig) = 0.000			R^2 = 0.719; Adj.R^2 = 0.696 F-value = 32.134; F(sig) = 0.000		

Significant at the 0.01 level (2-tailed).

Significant at the 0.05 level (2-tailed).

Profitability has been found with significant and positive coefficients in three model used. The coefficients are significant at 1 percent level of significance. The results indicate that profitability is one of the causes to increase firm value. This study suggests that by increasing profitability of any firm, financial manager can increase the value the firm.

Turnover has been found significant in Model 2 only. The coefficient is negative (-0.373) and statistically significant at 1 percent level of significance. The result indicates that where long-term leverage has no significant effect on firm value, assets turnover affects negatively on firm value. It indicates that if total asset turnover increases, firm value will decrease. This is somewhat surprising results in Nepalese companies. In the real world it could be seen that the more a company will be able to generate sales through total assets, the more efficient will be the firm and profit will be relatively higher and ultimately firm value may increase.

Firm size (Lnasset) variable has positive signs in Model 1 and Model 3 but negative and insignificant sign in Model 2. It is significant at 1 percent level of significance in Model 1 and Model 3. The results indicate that leverage and firm size are in same direction to affect firm value positively.

Liquidity has also been found significant in Model 2 only. The coefficient is negative (-0.464) and statistically significant at 1 percent level of significance. The result indicates that where long-term leverage has no significant effect on firm value, assets turnover affects negatively on firm value.

Assets growth and business risk are found insignificant in all three model used in manufacturing samples. It indicates that these two variables have no significant effect on manufacturing companies' value.

R-square value explains about 72.9 percent, 47.1 percent and 71.9 percent of the variations in the dependent variable (LnTobin-q) in Model-1, the Model-2 and the Model-3 respectively. VIF values in three models displayed in Table 5.9 are less than

4 (i.e. VIF < 4). It indicates that the estimated regression equations are free of multicollinearity.

5.4. 4 Leverage and firm value-nonmanufacturing sample

A. Relationship between leverage and firm value-nonmanufacturing sample

Table 5.10 demonstrates matrix of pair-wise Pearson correlation. Firm value (LnTobin-q) was found significantly positively correlated with short-term leverage and profitability but it is significantly negatively correlated with size (Lnasset). An examination of Table 5.10 shows that the highest correlated variable of the firm value (LnTobin-q) is firm size (Lnasset). The correlation coefficient of size variable is -0.910, which is highly negatively correlated with firm value. The significant negative correlation with firm value indicates that firm value is mostly influenced the firm size and it further indicates that as firm size increases, the firm value decreases. The next correlated variable is profitability (PROF), having correlation coefficient is 0.817 and it is significant at a 0.01 level of significance (P<0.01). The result indicates that firm value (LnTobin-q) is also depends on profitability. The third correlated variable to the firm value (LnTobin-q) is the short-term leverage (STL) with a correlation coefficient of 0.403 and significant at a 0.01 level of significance. This means firm value (LnTobin-q) and short-term leverage are positively related and indicates that short-term leverage is one of the influencing variable in firm's value in hotel and trading sample companies in Nepal.

Table 5.10
Correlation coefficients of variables- nonmanufacturing sample

Variables	LnTobin-q	TL	LTL	STL	PROF	TURN	Lnasset	LIQU	AGROW	BRISK
LnTobin-q	1									
TI	0.008	1								
LTL	-0.181	.899**	1							
STL	.403**	.365**	-0.078	1						
PROF	.817**	0.033	-0.182	.463**	1					
TURN	0.150	.779**	.609**	.482**	.270*	1				
Lnasset	-.910**	-0.053	0.120	-.374**	-.785**	-0.185	1			
LIQU	-0.180	-0.030	0.090	-0.255	0.057	.296*	0.075	1		
AGROW	-0.093	-0.054	0.013	-0.150	-0.015	0.025	0.049	.445**	1	
BRISK	0.160	0.013	-0.092	0.224	0.140	0.104	-0.113	0.062	0.067	1

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

Analysis among the independent variables shows that there is maximum correlation coefficient of 0.899 between LTL and TL. These two variables are individually used in the regression, thus it may not cause multicollinearity. With regard to the analysis among other independent variables, the correlation coefficients are found less than 0.80, hence indicating that there is an absence of multicollinearity. The variables qualify to enter into regression equation because severe multicollinearity has not been found among the independent variables.

B. Effect of leverage on firm value- nonmanufacturing sample

The results of Model 1, Model 2 and Model 3 are presented in Table 5.11. Results reveal that variables included measures of leverage, profitability, assets turnover, size, liquidity, assets growth and business risk. The variable used to represent leverage (capital structure) was found insignificant in all three models used in the analysis. It indicates that leverage does not affect firm value in hotel and trading companies in Nepal. This result is contradictory to that of manufacturing samples. The variable representing profitability was significant and positive, as anticipated, indicating that firm value is dependent on profitability. The results for Model 1, Model 2 and Model 3 were very much similar with respect to profitability. The coefficients are significant at 1 percent level of significance. The results indicate that profitable firm should have higher firm value in hotel and trading companies in Nepal. This result is similar to that of manufacturing sample.

Table 5.11
Regression results of leverage and firm value-nonmanufacturing sample

LnTobin-q = 10.398 – 0.179 TL + 1.973 PROF + 0.084 TURN – 0.475 Lnasset - 0.158 LIQU + 0.010 AGROW + 0.002 BRISK (1)

LnTobin-q = 10.285 – 0.073 LTL + 2.021 PROF + 0.016 TURN – 0.474 Lnasset – 0.134 LIQU + 0.007 AGROW + 0.002 BRISK (2)

LnTobin-q = 10.221 - 0.225 STL + 2.299 PROF + 0.015 TURN – 0.468 Lnasset – 0.152 LIQU + 0.006 AGROW + 0.002 BRISK (3)

Predictors	Model-1 (LEV =TL)			Model-2 (LEV = LTL)			Model-3 (LEV = STL)		
	Coefficient	p-value	VIF	Coefficient	p-value	VIF	Coefficient	p-value	VIF
Constant	10.398	0.000		10.285	0.000		10.221	0.000	
LEV	-0.179	0.245	3.613	-0.073	0.564	2.119	-0.225	0.412	2.191
PROF	1.973	0.001	2.964	2.021	0.001	3.160	2.299	0.000	3.112
TURN	0.084	0.401	4.313	0.016	0.836	2.409	0.015	0.817	1.771
Lnasset	-0.475	0.000	2.712	-0.474	0.000	2.719	-0.468	0.000	2.718
LIQU	-0.158	0.006	1.791	-0.134	0.010	1.465	-0.152	0.009	1.893
AGROW	0.010	0.784	1.286	0.007	0.853	1.277	0.006	0.855	1.274
BRISK	0.002	0.317	1.036	0.002	0.330	1.059	0.002	0.217	1.080
	R^2 = 0.884; Adj.R^2 = 0.868 F-value = 55.379; F(sig) = 0.000			R^2 = 0.881; Adj.R^2 = 0.865 F-value = 54.125; F(sig) = 0.000			R^2 = 0.882; Adj.R^2 = 0.866 F-value = 54.543; F(sig) = 0.000		

Significant at the 0.01 level (2-tailed).

Significant at the 0.05 level (2-tailed).

Company size (Lnasset) variable has negative signs (but positive sign was expected) in three models (Model 1, Model 2 and Model 3). It is significant at 1 percent level of significance in three models. The results indicate that as firm size increases, firm value decreases. The different results has been observed for firm size as compared to manufacturing sample where firm size (Lnasset) variable has positive signs in Model 1 and Model 3 but negative and insignificant sign in Model 2.

Liquidity was found significant in three models estimated. The coefficients are -0.158, -0.134 and -0.152 in Model 1, Model 2 and Model 3 respectively. The results are statistically significant at 1 percent level of significance. The negative signs of liquidity indicate that more liquid firms should have lower firm value. This result is different to that of manufacturing sample where liquidity was also found significant in Model 2 only.

Assets turnover, assets growth and business risk were found insignificant in three models used though their coefficients are positive with firm value. It indicates that these three variables have no significant effect on hotel and trading companies' firm value.

R-square value explains about 88.4 percent, 88.1 percent and 88.2 percent of the variations in the dependent variable (LnTobin-q) in Model-1, the Model-2 and the Model-3, respectively. VIF values in three models displayed in Table 5.11 are less than 5 (i.e. VIF<4). It indicates that the estimated regression equations are free of multicollinearity.

There are, apparently, many other factors that influence a firm's market value other than its choice of capital structure in the real world. Prior researchers have shown that other factors have significant relationship with firms' market values. This study mainly examined the relationship existing between the choice of capital structure of a firm and its market value. But other factors that as well influence firms' market values include; growth potential or future investment opportunity (Myers, 1984; Titman and Wessels, 1988; Harris and Raviv, 1991); Dividend Policy (Miller and Modigliani,

1961; Gordon, 1967); the size of a firm (Gordon, 1962); the kind of risk a firm is exposed to as well have some influence on its market valuation.

5.5 Discussion

In general, the market value of a firm is positively significantly influenced by its choice of capital structure. More specifically, there is a significant positive effect of total leverage, long-term & short-term leverage on the market value of a firm as suggested by other research studies as in Modigliani and Miller, 1963 and Mollik, 2008 among others, but in sharp contrast to the pecking order theory as propounded by Donaldson (1961), which assumes a firm's capital structure as irrelevant to its market value and that a firm's choice of capital structure should follow a well defined order, starting with internal funds, then debt and finally equity capital.

Capital structure was found to be the major determinant of firm's value in Nepal. Test result for Nepalese firms is found as per priori expectation that is capital structure positively affect firm value. The result is similar to the findings of Masulis (1983), Chowdhury and Chowdhury (2010), Adeyemi and Oboh (2011), Cheng & Tzeng (2011), Collins Filibus & Clement (2012) concluded that value of a firm is positively significantly influenced by its choice of capital structure. However, the finding of this study is inconsistent with the findings of Aggarwal and Zhao (2007) asserted that value of the firm and leverage is negatively related. Likely it is not in agreement with the capital structure irrelevancy theory of Modigliani and Miller (1958), which states that equity capital, is unrelated to firm value; and Millers (1977) hypothesis with corporate and personal income tax, which states that the capital structure of a firm does not impact on its market value. Also Miller (1977) opines that capital structure is unrelated to the value of a firm because the tax benefit which is adduced for the relevance of capital structure in relation to firm's value is offset by the fact that shareholders pay more tax than bondholders. This position of Miller (1977) is in consonance with that of Myers (1977) who opines that a firm with outstanding debt may have the incentive to reject projects that have positive NPV which may harm the firm's value.

The finding of this study is also inconsistent with the findings of Cheng, Liu and Chien (2010) who report that a triple-threshold effect does exist and show an inverted-U correlation between leverage and firm value. The authors conclude that it is possible to identify the definite level beyond which a further increase in debt financing does not improve proportional firm value.

Although the major concern of this study is to analyze the impact of capital structure on value of the firm in context of Nepalese non financial firms. In addition to capital structure, profitability positively affects firm value. On the other hand, assets turnover, company size, and liquidity negatively affect to firm value. Specifically, the test results compared with the priori expectation has been displayed in Table 5.12.

Table 5.12
Comparison of test results with priori expectation for leverage and firm value

Variables	Expected relationship (Priori hypothesis)	Test results for Nepalese firms (Dependent Variable = LnTobin-q)		
		Model-1 (TL)	Model-2 (LTL)	Model-3 (STL)
Leverage (TL, LTL, STL)	+	+	+	+
Profitability (PROF)	+	+	+	+
Assets Turnover (TURN)	+	-	-	-
Company Size (Lnasset)	-	-	-	-
Liquidity (LIQU)	+	-	-	-
Assets Growth (AGROW)	-	NS	NS	NS
Business Risk (BRISK)	-	NS	NS	NS

+ indicates positive
- indicates negative
NS= Not significant

The findings of this study suggest that maximizing the wealth of shareholders requires a perfect combination of debt and equity considering the effect of profitability, assets turnover, company size and liquidity. Specifically it can be concluded that by changing the capital structure composition a firm can increase its value in the market. Nonetheless, this could be a significant policy implication for finance managers because they can utilize debt to form optimal capital structure to maximize the wealth of shareholders. However the findings of this study suggest that financial policy or corporate leverage matters in a firm's market valuation. Consequently, the theory of a firm's optimal capital structure is justified on the ground that it has an empirical significant positive impact on the firm's market value. The study has also discovered

from the analysis that, in Nepal, a firm's market value is positively significantly influenced by its choice of capital structure.

CHAPTER VI

CORPORATE FINANCING POLICY IN NEPAL: A SURVEY

6.1 Introduction

The phenomenon of financing policy and its relationship with the value of an organization have long been a mystifying issue in corporate finance. Financing decisions are vital for the firm's financial welfare and financing policy is viewed to be a way of creating firm's value. A bad decision about capital structure and financing may lead to financial distress and eventually bankruptcy. However all procedures, work instructions and decisions are governed by policies. Financing policy is regarded as one of the important part of the corporate policies. It is a course of action taken by finance executives to address the issues, problems or interrelated set of problems in the course of raising capital fund within an organization. It is a plan of how an organization will finance its activities, what amount of money it will need and where it will come from. It provides rules and consistent guidelines for financial activities and it also sets a foundation for financing decision making. The decision regarding the use of debt and equity modes of financing is not an easy job, with the fact that a number of benefits and costs are associated with the management decisions regarding the optimal use of capital structure. Financing decisions and practices vary from country to country, partly explained by institutional and legal environment as well as macroeconomic factors.

The essence of the corporate financing policy is to determine an optimal capital structure that maximizes the value of the firm. Yet, mixed views exist about whether an optimal capital structure actually exists. Modigliani and Miller (1958) conclude that under stringent conditions of competitive, frictionless, and complete capital markets, the value of a firm is independent of its capital structure. They assert that managers cannot alter firm value or the cost of capital by the capital structures that their firms choose. They point out that financing and capital structure decisions are not shareholder value enhancing and are deemed to be irrelevant. Financing decisions have gained much attention in finance literature over the years since the seminal works of Modigliani-Miller (1958, 1963) capital structure irrelevance propositions. Financial economists have relaxed the restrictive assumptions underlying the theory

of capital structure irrelevance and have introduced capital market frictions into their models. By introducing capital market frictions, such as taxes, bankruptcy costs, and asymmetric information, they are able to explain at least some factors driving capital structure decisions. Consequently, financial economists have set forth various capital structure theories such as trade-off theory (Kraus and Litzenberger 1973), pecking order theory (Myers 1984; Myers and Majluf 1984), signaling (Ross 1977), and market timing theory (Baker and Wurgler 2002) to explain the relevance of capital structure. These theories relate directly to taxes, asymmetric information, agency problems, and bankruptcy costs. Taken separately, these theories cannot explain certain important facts about capital structure. Despite extensive research into the area of capital structure, determining the precise financing mix that maximizes the market value of the firm remains elusive.

Finance managers often face challenges in determining optimal capital structure. An incorrect financing decision may lead to financing distress and eventually bankruptcy (Eriotis, Vasiliou, & Neokosmidi, 2007). Different levels of debt and equity used in capital structure suggest that managers may employ firm-specific strategies for improved performance (Gleason, Mathur, & Mathur 2000). Although financial theory suggests that firms should strive to obtain an optimal capital structure (i.e. one that minimizes a firm's cost of capital), no specific method has been identified to help financial managers determine the optimal level of leverage (Eriotis *et al.*, 2007).

Although earlier capital structure theories grounded within the finance paradigm (static trade off, agency costs and asymmetric information theories) have contributed to a deeper understanding of the capital structure puzzle (Myers, 1984), recent efforts suggest that research for the missing pieces of the puzzle should continue (Ang, 1991; Myeres 1984; Norton 1991). This ongoing research should include a broader managerial perspective (Barton and Gordon, 1987, 1988; Barton and Matthews, 1989), which considers both non-financial behavioral factors. Managerial preferences regarding such issues as efficiency, profits, power maximization, behavior and output control (Child, 1972; Ouchi and Maguire 1975) are critical for understanding decision making within organizations.

Quantitative research in the finance paradigm however, has tended to downplay (if not ignore) managerial preferences, thus yielding capital structure decision theories that do not adequately explain actual financing decisions (Myers, 1984). In order to address some of the weaknesses in the theories which seek to explain firm financing decisions, more recent research efforts have included the investigation of factors such as perceived business risk (Kale *et al*., 1991), institutional ownership (Chaganti and Damanpour, 1991), firm size, management risk perceptions and preferences (Norton, 1991b). All of these issues have been found to play some role in influencing financing decisions within the firms.

How firms make their corporate financing decisions has been one of the most extensively researched areas in corporate finance, yet there is little consensus on how firms choose their capital structure and much remains to understand the link between theory and practice of capital structure (Nor, Ibrahim, Haron, Ibrahim & Alias, 2012). Interestingly, financial executives are much less likely to follow the academically prescribed factors and theories when determining capital structure. This raises the possibilities for additional thought and research on the real practice of financial decision making. Yet capital structure theories are the valid descriptions of what firms should do, perhaps the corporations disregard the theoretical advice. Thus, determinants of financing decisions in corporations are still debated. It is a more required towards a qualitative study of the problem with a view to examining the perception of managers with regard to the financing practices and capital structure of their firms.

Studies utilizing questionnaires for examining corporate financing practices have focused mainly on the developed capital markets (i.e. American and European capital markets), there is lack of such study in underdeveloped economy like Nepal. Further it was hoped that a direct appeal to the company officers involved might shed light on which current theory is closer to the truth, at least in light of management's perceptions. Donaldson is one of the few to have explored the financial policy area from a management viewpoint. This study attempts to investigate similar issue in the Nepalese context by focusing primarily on the financing policy and practices using survey method. A major objective of this survey is to describe the existing corporate financing patterns. This study also analyzes the important factors that influence the

financing decisions of the managers and discovers whether the capital structure practices of Nepalese managers are in line with the capital structure theories. It is deemed that the findings of this survey can address to the problem of financing practices looking at it from the perspective of management. The findings of this study also prescribe specific set of statements describing the preferred option should an entity undertake. Policy prescribed in this study provides the framework for establishing prudent financial goals, and priorities for financial planning.

The rest of the chapter is organized as follows. Section 6.2 presents the review of literature. Section 6.3 incorporates survey procedure and describes the samples. Section 6.4 documents the results of survey analysis and section 6.5 discusses the results.

6.2 Review of literature

Since survey is constructed and used in this study, the focus is on the studies that employ surveys. Studies that employ survey have been included in this section. The review of literature on financing policies and practices has been organized as follows:

I. Review of studies before 2000

II. Review of studies during 2000s to date

III. Concluding remarks

I. Review of studies before 2000

Major studies on financing practices before 2000 has been depicted Table 6.1. Scott and Johnson (1982) analyze the financing-decision processes of large corporations. The data were gathered from a questionnaire that was mailed to the chief financial officer of each firm in the 1979 "Fortune 1000" list. They conclude that firms use target financial leverage ratios as an input to making financing decisions. The most important influence on these targets is the firm's own management group and staff of analysts. Several ratios are used by corporations to measure leverage-especially (1) long-term debt to total capitalization, (2) times-interest earned, and (3) long-term debt to net worth. For computing ratios (1) and (3), book values, rather than market values, are almost always used. It is clearly evident that the participating executives subscribe to the concept of an optimal capital structure. Further, they believe the prudent use of debt can lower the firm's overall cost of capital and that debt-use can affect common

stock price. This is translated in practice into long-term debt to total capitalization ratios that fall predominantly into the 26-40 percent range. More specially, the most popular reported range for this ratio is 26-30 percent. The participating financial executives overtly accept the concept of a corporate debt capacity and maintain rather precise definitions of it. The most popular definition is management-determined limit on the firm's long-term debt to total capitalization ratio. Balance sheet-based leverage ratios serve as definitions of debt capacity for 36 percent of the first 500 respondents and for 50 percent of the second 500 respondents. The desire to maintain a given bond rating is a popular notion (rather than definition) of debt capacity among the first 500 sample group; it represents 21 percent of the responses for those executives. Neither highly sophisticated interpretations of debt capacity, nor attempts to measure it, are evidenced in practice by the survey results.

Table 6.1
Major studies on financing practices before 2000

Study	Major finding
Scott and Johnson (1982)	Participating executives subscribe to the concept of an optimal capital structure. Prudent use of debt can lower the firm's overall cost of capital and that debt-use can affect common stock price.
Donaldson (1984)	Companies appear to be trying to maximize corporate wealth as opposed to shareholder wealth.
Mayer (1990)	Two-thirds on the average of investment financing in developed countries are mobilized through internal financing.
Sultz (1990)	Financing policy matters because it reduces the agency costs of managerial discretion.
Allen (1991)	Australian companies appear to follow a pecking order with respect to funding sources and also report policies of maintaining spare debt capacity.
Norton (1991a)	Market conditions, managerial preferences, and perceptions are the key influencing factors of capital structure decision.
Singh and Hamid (1992)	To some extent developing countries' corporations prefer equity to debt financing.
Ang *et al*. (1997)	Bank credits, retained earnings and trade credits are the main sources of financing for publicly traded Indonesian firms.

Donaldson (1984) concludes that the sampled companies appeared to be trying to maximize corporate wealth as opposed to shareholder wealth. This is largely a result of the desire for independence and survival and is a natural corollary to the fact that it is the "quality and quantity of the financial and human resources under management's control that actually support the business mission". The author suggests that the contributing factor to this position is the extent to which managers have learned to mistrust external funding sources because they cannot actually predict and control

capital market conditions. The author further argues that corporate mangers come to believe in the existence of a capital market "window" which opens and shuts at times outside their control.

The study by Mayer (1990) makes the point that two-thirds on the average of investment financing in developed countries like the US, UK, Japan, Germany, France, Italy, Canada and Finland are mobilized through internal financing.

Sultz (1990) analyzes financing policies in a firm owned by atomistic shareholders who observe neither cash flows nor management's investment decisions. He points out that management derives perquisites from investment and invests as much as possible. Since it always claims that cash flow is too low to fund all positive net present value projects, its claim is not credible when cash flow is truly low. Consequently, management is forced to invest too little when cash flow is low and chooses to invest too much when it is high. Financing policies, by influencing the resources under management's control, can reduce the costs of over- and under-investment. He further reports that as the volatility of a given period's cash flow fall, it becomes less likely that resources available to management will differ significantly from the resources shareholders expect management to have. The author concludes that financing policy matters because it reduces the agency costs of managerial discretion.

Allen (1991) investigates into the financial managers' perceptions of the broad determinants of listed Australian company capital structure decisions. The research method involves a series of field interviews undertaken with the company secretaries and senior financial personnel of 48 listed Australian companies. The author concludes that Australian companies appear to follow a pecking order with respect to funding sources and also report policies of maintaining spare debt capacity.

Norton (1991a) suggests that an approach that considers market conditions, managerial preferences, and perceptions as the key influencing factors of capital structure decision is needed. The author reports that, contrary to financial theory, factors dealing with bankruptcy costs, agency costs and information asymmetries play little, if any role in affecting capital stricture policy in smaller firms. It has been

suggested that management perception of a target debt ratio (if any) and notions of the trade-offs involved in external financing will determine whether debt or equity, or neither will be issued. The sum total of these perceptions, beliefs and conditions which influence owners' decision over time will result in the firm's observed capital structure.

Singh and Hamid (1992) observe very different trends in certain developing countries. The contribution of external sources to the financing of net fixed capital formation in the 1980s was around 50 per cent with a significant share coming from the stock market. Government regulations that directly discourage the use of debt by imposing specified limits to debt ratios of firms could explain, to some extent, the preference of developing countries' corporations for equity rather than debt financing.

Ang *et al.* (1997) have investigated into the capital structure and dividend policies of a sample of large publicly traded Indonesian firms. The survey results show that samples firms seem to have good access to different sources of funds, especially from banks and equity market. The authors have pointed out that bank credits, retained earnings and trade credits as the main sources of financing for publicly traded Indonesian firms. They have found some support that the firms operate as if there exists an optimal debt ratio. Their results are consistent with a world of large profitable firms that have good access to major alternative sources of firms, and yet, these firms are willing, for financing at the margin, to use their superiors' information to their advantage.

II. Review of studies during 2000s to date

Major studies on financing practices during the 2000s to date have been summarized in Table 6.2. Graham and Harvey (2001) test the implications of different capital structure theories through a survey of US managers and find that executives rely heavily on practical, informal rules when choosing capital structure. They find that financial managers take into account on flexibility and credit ratings when they issue bonds. On the other hand, dilution effect and recent price increases are taken into consideration during common stock issues. They observe moderate support that firms follow the trade-off theory and target their debt ratios. They also find some support for the pecking-order theory. They find little evidence that other factors including

agency costs, signaling, asset substitution, free cash flow and product market concerns affect capital structure choice. They also report that managers use many informal criteria, such as credit rating and earnings per share dilution, in making their financing decisions.

Table 6.2
Major studies on financing practices during 2000s to date

Study	Major finding
Graham and Harvey (2001)	Managers use many informal criteria, such as credit rating and earnings per share dilution, in making their financing decisions. Firms follow the trade-off theory and target their debt ratios.
Singh (2003)	Emerging countries with reasonably well- developed banking system and equity markets would follow pecking order pattern of finance.
Bancel and Mittoo (2004)	Financial flexibility, credit rating, tax advantage of debt and earnings per share dilution are primary concerns of managers in issuing debt and common stock, respectively.
Brounen *et al.* (2004)	Financial flexibility to be the most important debt determinant but, while consistent with the pecking order theory, this was not driven by asymmetric information.
Isachenkova and Mickiewicz (2004)	Firms with international parent, firms with concentrated ownership, and firms with larger turnover are less constrained in their access to finance. Also industrial group members favor bond issues.
Frielinghaus *et al.* (2005)	Companies prefer more debt in early stages, while they opt for internal sources as the life stages advance. They conclude that this finding favors pecking order theory.
Beattie *et al.* (2006)	Firms are heterogeneous in their capital structure policies. Small and medium sized UK firms do not determine a target leverage ratio but big sized firms that specify a target leverage ratio seems to be larger.
Colombage (2007)	Financial hierarchy, which appears to be the dominant financial policy among listed Sri Lankan companies.
Isa (2008)	Average debt level among Malaysian companies is less than half of the international average.
Jindrichovska and Korner (2008)	Firms prefer retained earnings among internal financing instruments and bank loans and leasing among external financing instruments.
Chazi *et al.* (2010)	Inconclusive with regard to either the information asymmetry pecking-order or the trade-off theories.
Beena (2011)	Corporate sector mobilized large share of resources through external sources. Borrowings are the major sources of external financing.
Karadeniz, Kandır, Iskenderoğlu and Onal (2011)	Significant relationship between firm size and using incentives in financing setup investments. Companies seem to prefer equity and long-term debt in a sequence.
Gill, Mand, Sharma and Mathur (2012)	Small business growth, small business performance, total assets, sales, tax, and family have positive influence on the financial leverage of small business firms in India.
Nor, Ibrahim, Haron, Ibrahim & Alias (2012)	Mixed support for the notion that firms does trade-off costs and benefits to derive an optimal debt ratio. Regard internal funds for financing projects as the most important source of financing.

Singh (2003) argues that emerging countries with reasonably well-developed banking system and equity markets would follow pecking order pattern of finance not only

because of the informational asymmetries but also due to the institutional specificities of emerging markets in particular, the desire to maintain family ownership and control of corporations.

Bancel and Mittoo (2004) have surveyed managers in 16 European countries on the determinants of capital structure, in order to examine whether European and US managers' views on capital structure are driven by similar factors. They have found that financial flexibility, credit rating, tax advantage of debt and earnings per share dilution are primary concerns of managers in issuing debt and common stock, respectively.

Brounen *et al.* (2004) have surveyed 313 CFOs across 4 European countries (the UK, the Netherlands, Germany and France), including 68 from the UK. They have also found financial flexibility to be the most important debt determinant but, while consistent with the pecking order theory, this is not driven by asymmetric information.

A relevant survey in the economies in transition has been conducted by Isachenkova and Mickiewicz (2004). They have found that in Hungary and Poland the firms with international parent, firms with concentrated ownership, and firms with larger turnover are less constrained in their access to finance. Next to it, they have also found that industrial group members favor bond issues and disinvestments in financing of their investment activities.

Frielinghaus *et al*. (2005) have reported that South African companies prefer more debt in early stages, while they opt for internal sources as the life stages advance. They conclude that this finding favors pecking order theory.

A comprehensive survey of corporate financing decision-making in UK listed companies has been reported by Beattie *et al.* (2006). A key finding is that firms are heterogeneous in their capital structure policies. About half of the firms seek to maintain a target debt level is consistent with trade-off theory, but 60% claim to follow a financing hierarchy which is consistent with pecking order theory. They have found that most of the publicly traded small and medium sized UK firms do not

determine a target leverage ratio. On the other hand, the number of big sized firms that specify a target leverage ratio seems to be larger.

Colombage (2007) provides significant evidence from emerging market by investigating capital structure practices among of the Sri Lankan listed companies. The results demonstrate a devotion to a financial hierarchy, which appears to be the dominant financial policy among listed Sri Lankan companies.

By utilizing both market data and survey data from various sources (including other studies in local markets and other countries), Isa (2008) focuses on capital budgeting, capital structure and dividend policies and practices of the Malaysian companies. The study concludes that the average debt level among Malaysian companies is less than half of the international average. This indicates that there is much scope for corporate lending in the banking industry and also much scope for private debt securities in the capital markets.

Jindrichovska and Korner (2008) investigate into the empirical evidence on determinants of financing decisions on the pool of respondents among financial managers of Czech firms. They discover that firms follow pecking order theory for working capital financing. However, the arguments for pecking order theory in investment financing are not strong. They report that firms prefer retained earnings among internal financing instruments and bank loans and leasing among external financing instruments. For IPO, the firms perceive this instrument as less available and costly. However, larger firms perceive it as more available than smaller firms.

A recent survey study by Chazi *et al.* (2010) adapts to an amended Graham and Harvey (2001) survey in six Middle Eastern countries (Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and UAE). They study an extended set of financial decisions through a contrast between Gulf region with North American and European peers. They employ a questionnaire, containing questions on cost of capital, capital budgeting, corporate governance and questions about Islamic financial instruments. Result of their study is inconclusive with regard to either the information asymmetry pecking-order or the trade-off theories, consistent with Graham and Harvey (2001). The results offer mixed support as to which theory better explains the debt-to-equity ratio in the Middle East.

Beena (2011) has analyzed the financing pattern of Indian corporate sector during 1990-2009. The author asserts that Indian private corporate sector mobilized large share of resources through external sources although there is an increasing trend in the share of internal financing since 2000. Borrowings are the major sources of external financing. Share of resources mobilized through capital market has sharply declined since mid-1990s. It is likely that Indian acquiring firms mobilized large funds through external sources although the share of retained profit was quite substantial unlike in the case of the manufacturing sector. The author argues that the pecking order theorem does not seem to be applicable in the case of the Indian manufacturing sector. Further, it is concluded that although stock market development is expected to lower the cost of capital for Indian corporations, it has not played a major role as far as the actual resource mobilization of the Indian manufacturing sector is concerned.

Karadeniz, Kandır, Iskenderoğlu and Onal (2011) critically look at the role of firm size on capital structure decisions of unquoted 163 Turkish lodging companies. The survey results suggest that there is a statistically significant relationship between firm size and using incentives in financing setup investments. Furthermore, they detect a statistically significant relationship between firm size and common stock issues. Likewise, they observe a significant linkage between firm size and personal debt. However, financing preferences for setup investments, ongoing operations and future investments seem to be independent from firm size. Moreover, there is a hierarchical preference for internal sources, debt and common stock issues. This sequential order of financing sources is compatible with pecking order theory. Other findings are also related with the validity of pecking order theory in explaining the capital structures of Turkish lodging companies. This finding supports trade-off theory. Companies could reach money markets more easily; tendency of determining target debt ratios is stronger for bigger companies. Finally, big lodging companies appear to use incentives more heavily than small companies do. This finding necessitates a thoroughly review of incentive policy for tourism industry. Turkish lodging companies seem to prefer equity and long-term debt in a sequence.

Gill, Mand, Sharma and Mathur (2012) examine the factors that influence financial leverage of small business firms in India. Their study surveys small business

owners from Punjab area of India in order to gather information. Subjects are asked about their perceptions, beliefs, and feelings regarding the factors that influence financial leverage of their firms. This study utilizes survey research (a non-experimental field study design). The findings of this study show that small business growth, small business performance, total assets, sales, tax, and family have positive influence on the financial leverage of small business firms in India.

Nor, Ibrahim, Haron, Ibrahim and Alias (2012) have critically looked at the capital structure practices of the Malaysian CFOs by employing a survey analysis on the non-financial listed firms in Malaysia, conducted from November 2010 to March 2011. The 203 usable responses from the Malaysian CFOs have been obtained, thus representing a response rate of 25%. The study's objective is to analytically identify how the capital structure choices are influenced by those who make the decisions in practice. The survey result provides mixed support for the notion that firms does trade-off costs and benefits to derive an optimal debt ratio. From the financing hierarchy point of view, this study finds that Malaysian managers regard the use of internal funds for financing projects as the most important source of financing. This study enriches the literature by discovering the extent to which the capital structure theories are able to explain the corporate financing behavior and practices of Malaysian managers.

III. Concluding remarks

Review of the past studies that employ survey analysis on investigating the capital structure practices indicate inconsistencies in terms of factors considered important by the managers in making debt-equity financing decisions as well as some deviations between the theories and the practices of capital structure. The use of a field research (survey) approach has been prompted by the lack of agreement in the academic literature. This is summarized in a paper by Myers (1984), which concludes that capital structure policy remains a puzzle. It is hoped that a direct appeal to the company officers involved might shed light on which current theory is closure to the truth, at least in the light of management's perceptions. Donaldson (1961, 1969, and 1984) is one of the few researchers to have explored the financial policy area from a management viewpoint. Donaldson and Lorsch (1983) have also explored the financial policy from a management viewpoint particularly decision making practices

at the top level. These results have been published in a series a monographs (1961, 1969, 1983, and 1984).

Modigliani and Miller (1958) point out that the financing and capital structure decisions are not shareholder value enhancing and are deemed to be irrelevant. Sultz (1990) concludes that financing policy matters because it reduces the agency costs of managerial discretion. Graham and Harvey (2001) argue that the relatively low support for these capital structure theories indicates that there is either a problem with the theories or that practitioners are ignoring them. Such discrepancies may also due to the fact that there is no single theory which is good enough and that these theories are complementary rather than competing. This issue raises the need for further exploration and critical analysis on the important factors that influence the corporate financing decisions of the managers. This requires knowledge of the measures that managers' use, the factors that affect the choices made, and the theories that are being applied (explicitly or implicitly, partially or completely) as well as knowledge of those factors and theories that they apparently disregard.

Chazi *et al.* (2010) have also found inconclusive result with regard to either the information asymmetry pecking-order or the trade-off theories in practice. Hence, this study aims to analytically examine how the Nepalese firms determine their overall financing strategy, why they choose a particular mix of financing instruments, and why they choose to limit borrowings or set up spare borrowing capacity. The managers' feedback is crucial in discovering whether the capital structure practices of Nepalese managers are in line with the capital structure theories, specifically the static trade off theory and the pecking order theory.

6.3 Survey procedure

The survey section of this study examines the important factors related to the financing policy and also assesses the opinion of practitioners regarding the influence of financing policy on firm’s value.

6.3.1 Research design

A research design is the overall plan for obtaining answers to the questions being studied and for handling some of the difficulties encountered during the research

process (Polit and Beck, 2004). Research design has been developed to meet the unique requirements of a study. Survey research owes its continuing popularity to its versatility, efficiency, and generalizability. In view of the importance of survey research, this study has adopted survey research design to collect the views of the respondents with regard to corporate financing policy. Using the survey design, the primary data were collected using well-organized questionnaire with the expectation of reducing measurement error by encouraging respondents to answer questions carefully and to participate in the survey.

6.3.2 Population and sampling

The population of this study is consisted of manufacturing and non-manufacturing (hotel and trading) enterprises listed in Nepal Stock Exchange and the sampling frame of this study is the list of all financial executives of these enterprises.

Sampling is a vital part of a survey and if done well the results from the sample can be used to describe the whole study population. It is the process of selecting part of a larger group of participants of the population to represent the entire population with the intent of generalizing the results from the smaller group, called the sample, to the population. In this study stratified random sampling technique has been used for selecting the sample. Stratified random sampling divides the population into homogenous subgroups from which elements are selected at random. The rationale for using stratified random sampling strategy has been to increase precision without increasing cost and reduce sampling errors. Using this sampling strategy the population has been classified into sub-populations (strata) based on industry types: manufacturing and non-manufacturing (hotel and trading). The randomly chosen sample from sub-populations provides data to represent subgroups.

Sample size is an important part of the study design to ensure validity, accuracy, reliability and, scientific and ethical integrity of the study. An inadequate sample size leads to imprecise estimates and a lack of power to detect significant differences between groups. An overestimate of the required sample size leads to a waste of resources to answer the research question. According to ROSCOE (1975), sample size larger than 30 and less than 500 are appropriate for most research. The author asserts

that where samples are to be broken into subsamples, a minimum sample size of 30 for each category is necessary.

The survey method has an impact on response rate. A high rate of response can reduce the possibility of a non-representative sample. According to Babbie (1990), the 60% response rate is regarded as good response rate. Table 6.3 displays the total number of questionnaires distributed and response rate of the survey.

Table 6.3
Questionnaires distributed and response rate

Industry Category	Number of questionnaires distributed	Number of questionnaires returned (actual sample)	Response rate (%)
Manufacturing	198	132	66.67
Non-manufacturing (Hotel & trading)	77	49	63.64
Total	275	181	65.82

In this study, the sample sizes for each stratum (subsamples) are: manufacturing 132 and non-manufacturing 49. The sample sizes chosen are more than a minimum sample size as suggested by ROSCOE (1975). Thus, the sample size seems to be adequate for generalizability of the results. Out of the 275 questionnaires sent to the target the target population, 181, usable responses have been collected. This represents a response rate of 65.82 % which seems good response rate as suggested by Babbie (1990). In this study, the target population has been fairly represented considering that key personnel who are relevant to the study have been reached.

The pre-tested questionnaire were distributed to respondents in the industry category after feedback improved to collect the desired information related to the corporate financing policy, capital structure and firm value. The questionnaires were distributed from February 2013 to May 2013 to practitioners of selected enterprises of the Kathmandu Valley, Biratnagar, Hetaunda, Butwal and other places of Nepal. The other places included were Birgunj, Chitwan, Gorkha, Pokhara, Nawalparasi, Bhairawa and Nepalgunj.

The questionnaires were delivered to the chief executive, general manager, financial managers or treasurers and chief accountant. These individuals were generally more

involved in day to day finance activities and thus, are probably the most appropriate ones to complete the survey. Moreover, as the respondents were of high hierarchical positions in their organizations, the quality of information is expected to be particularly high with a high degree of reliability. Given the quality of response, the high responsibility position of respondents, the reasonable size of the sample in relation to the population, and the fact that the companies were among the largest in the business sector in Nepal, the sample can be deemed to be representative.

6.3.3 Construction, pre-testing and development of questionnaire

Questionnaire is generally regarded as an instrument of a survey. It has been used to collect generalisable information from the executives who have experiences in managing fund in Nepalese enterprises. The questionnaires were constructed to encompass different aspects of corporate financing policy. The questionnaires were prepared in the form of Likert scale requesting the respondents to rate how important these variables are in determining firm's financing policies. The questionnaires were also in the form of ranking alternatives, option choice, close end and as well open end. Respondents were given opportunities to specify other alternatives in the space provided. Respondents were also encouraged to write other relevant comments in the margin of the survey instrument.

The construction of the questionnaire went through several stages. Questionnaire were initially designed and developed using the approach of Scott and Johnson (1982), Allen (1991), Graham and Harvey (2001), Bancel and Mittoo (2004), Chazi *et al.* (2010). In the early stage, the questionnaire was revised several times to ensure that questions related to the concepts being tested are adequate with respect to question flow, usefulness of instructions and readability of the questionnaire.

The questionnaires were running for pre-test at the early part of January 2013 to the fifty (55) financial executives of five listed enterprises of Kathmandu Valley as well as twenty five (25) academicians in financial field for checking efficiency, relevancy and the meaning of the questions. The financial executives selected for pre-test respondents were the chief executive, general manager, financial managers or treasurers, chief accountant and account officers. Academicians selected for pre-test respondents in financial field were lectures and associate professor involved in the

teaching of finance subjects in different campus situated at Kathmandu Valley of Tribhuvan University Nepal. The four main issues of design such as question content, question form, the instrument and procedures were considered while questionnaire pre-testing. The purpose of pre-test was to explore information about the relevancy of questions' items and adjust variables in the appropriate scales and building a completed questionnaire in Nepalese context.

After the five (5) days, the filled up questionnaires were returned for analysis. The filled up questionnaires returned from pre-test respondents were analyzed through qualitative research method. The qualitative analysis procedures identified some misunderstandings, ambiguity, problems with the design and formatting of questions. The questionnaire used for pre-test was found long and complex for answering. The questionnaire, which was the basis for the pre-test, was ten (10) pages long with 61 questions. Based on the qualitative analysis of the responses of pre-tested questionnaire, the refined and finalize versions of the questionnaire were reduced to 6 pages long with 44 questions after necessary adjustments.

Inappropriate, vague, complex and irrelevant questions to Nepalese context were removed from the questionnaire. Altogether 22 questions were removed after the pre-test analysis. The questions removed were in the form like 5 point Likert scale, option choice, and close end as well open end. The basic reason behind removing of these questions from questionnaire was that these were un-answered partially or completely and also misunderstood by the pre-test respondents and found irrelevant for financing policies issues in Nepalese context.

In order to make better question flow and adjust variables in the appropriate scales, some questions were revised and moved to another location for the improvement of questionnaire. The questions that were revised and moved to another location are: questions (as per finalized questionnaire) 9,11,13,17,19,20,27,31, 32,33,35, 36,40 and 43. In total 14 questions were revised and moved to appropriate location to ensure better question flow of the questionnaire. Some fresh questions as considered relevant for the survey purposes were incorporated in the finalized structured questionnaire. The newly incorporated questions were questions (as per finalized questionnaire) 23, 39, 41, 42 and 44. In total 5 questions were newly added in survey

questionnaire. The rest of 25 questions were found appropriate and relevant by pre-test respondents.

The pre-test procedures identified the questions that needed editing and those with ambiguities, need correction and revisions. After the necessary correction, adjustments and addition, a set of questionnaire was developed for survey purpose. The well developed final questionnaires were then printed and distributed to the targeted respondents in the industry category to collect the desired information related to the corporate financing policy, capital structure and firm value.

6.3.4 Verification of non-response bias

Non-response bias test can assure that there is no evidence that non-response has affected the composition of the observed data. The non-response bias in the estimate cannot be quantified or fully corrected, but indicators of the risk of bias can be useful, as reviewed in Wagner (2012) and in Kreuter *et al.* (2010). However, the standard way to test for non-response bias is to compare the responses of those who return the first mailing of a questionnaire to those who return the second mailing. Those who return the second questionnaires are, in effect, a sample of non-respondents (to the first mailing) and assumed that they are representative of that group. In this study, the tests for non-response bias have been scarce, because of the data on non-respondents, which is necessary to conduct the tests, has not been available.

However, using the multiple thresholds of response rates, researchers can observe the presence of non-response bias. A 50% response rate is generally regarded as acceptable, 60% is regarded as good and a 70% response rate is usually regarded as very good (Babbie,1990). The response rate in this study was 65.82% which seems good response rate as suggested by Babbie (1990). Thus, there is no presence of non-response bias in this study.

6.3.5 Data analysis method

Under the analysis of results, descriptive statistics like percentage, mean, standard deviation etc. have been calculated. The Chi-square test has been performed to report whether the views for manufacturing and non-manufacturing respondents are independent or similar. It is based on a computed Chi-square value and reported p-

value as shown by SPSS 16 version. Spearman rank correlation has been used to test the association between two ranked variables. It is used when there are two ranked variables, and researcher wants to see whether the two variables covary; whether, as one variable increases, the other variable tends to increase or decrease. Using the Spearman rank correlation, the differences between manufacturing and non-manufacturing (hotel & trading) respondents about the preference (rank) of financing issues/ variables have been computed.

Moreover, Independent-Samples t-Test has also been used in the study to analyze the rank order responses. It compares the mean scores of two groups on a given variable. The t-test results are reported twice (i.e. "Equal variances assumed" and "Equal variances not assumed"). Whether the assumption of equal variances holds is evaluated using Levene's test for the equality of variances. The researcher should look at the number under "Sig." for "Levene's Test for Equality of Variances". As a rule of thumb, if Sig.>.05, researcher should use the t-value for the "Equal variances assumed" row (the top row). Reversely, if its p-value ("Sig.") < .05, one should reject the null hypothesis of equal variances and use at the t-value for the "Equal variances not assumed" row (the bottom row).

After selecting appropriate variances ("Equal variances assumed" and "Equal variances not assumed"), researcher should look at t-test for Equality of Means-especially under the "Sig. (2-tailed)" column at the appropriate number based on the Levene's Test. If the Sig. is less than .05 then the statistic is considered to be significant (meaning that the researcher can be 95% confident that the difference between the means of the two groups is not due to chance). Reversely, if the Sig. value is greater than .05 (Sig.>.05), researcher can say that there is not a significant difference between two group means. In this study the Independent-Samples t-Test typically less than .05 indicates that there is a significant difference between the two group (manufacturing and non-manufacturing responses) means.

6.3.6 Reliability and validity

Reliability involves the consistency, or reproducibility, of test scores. Consistency is the main measure of reliability and most popular method of testing for internal consistency in the behavioural sciences is Cronbach's alpha. According to George

and Malley (2003), the minimum acceptable score of Cronbatch's alpha is 0.7. Reliability test using Cronbatch's alpha only indicates if the items hang together; it does not determine if they are measuring attribute. Reliability is a necessary condition for validity.

Validity refers to the degree to which a survey instrument actually measures what it purports to measure. The focus of the validity is not necessarily on score or items, but rather inferences made from the instrument. To make survey instrument more effective, scales should be judged on their content and construct validity. Content validation refers to the extent to which a question appropriately assesses the characteristics it is intended to measure (Fink, 2003). To perform this content validity, a pre-test of the questionnaire was conducted. The purpose was to make sure that the questions were understood in the context of the survey design. A consistent mapping of a question to the wrong factor would have indicated a problem with the question content or wording. After the pre-test of the questionnaire, several wording modification suggestions were collected and incorporated in the final survey.

Construct validity addresses how well an assessment technique provides useful information about the construct/target. It refers to the degree to which inferences can legitimately be made from the operationalizations in the study to the theoretical constructs on which those operationalizations were based. It involves theory and the relationship of data to theory. In the same token, survey instrument for this study were constructed based on relevant theory as well as past empirical evidences and then developed to fit to Nepalese context. Thus, the information drawn from the financial executives using well structured questionnaire is considered to be valid and the survey procedure measured all the major facets of financing policies of Nepalese enterprises.

6.4 Survey results

For the presentation and analysis of primary information, this section is divided into four sub-sections: the first describes the respondents' profile. The second reports reliability statistics and the third presents the survey results of the financing policies and practices in Nepalese enterprises. Finally, the fourth draws the overall discussion together in a general conclusion.

I. Reliability statistics

In this study, reliability test has been conducted using Cronbach's alpha. It is the average value of the reliability coefficient where one could obtain for all possible combinations of items.

Table 6.4
Reliability statistics

Question No.	Cronbach's Alpha	N of Items (Factors)
11	.809	12
13	.783	7
16	.749	6
17	.871	9
19	.828	7
20	.861	11
26	.806	6
27	.836	8
28	.811	5
31	.782	7

The test of the reliability of the questionnaire is necessity to check whether the questionnaire is consistent and suitable for statistical analysis or not. Cronbach's alpha has been calculated using SPSS 16.0 to test for internal consistency reliability only for the five point Likert scale questions among questionnaire of this study. Table 6.4 describes the reliability statistics of the responses. Table 6.4 shows that Cronbach's Alpha ranges from Minimum .749 to maximum .871 which is greater than the range of acceptance (α =0.70). Thus, collected data were reliable and feasible for further statistical testing.

II. Profile of respondent

Table 6.5 Panel-A, presents the characteristics of the respondent firms shows the respondents' profile such as location, title, age, education, and experience and industry representation. The survey produced total 181 usable responses, at 65.82 percent response rate. It is observed from the table that majority of the persons

responding to the survey 53 percent belong to Kathmandu Valley which includes Kathmandu, Latitpur and Bhaktapur. The remaining respondents represent from Biratnager 15 percent, Hetaunda 12 percent, Butwal 11 percent and from other different places of nation 9 percent. The basic reason behind this selection is that most of the renowned manufacturing, hotel and trading companies are concentrated in these areas. As indicated by Table 6.5 Panel-A the majority of the respondents were chief financial officer/financial manager 53 percent, and it is followed by Chief Accountant/Account officer 28 percent and thereafter CEO/ Director 19 percent.

Table 6.5 Panel -A
Respondents' profile and industry representation

Parameters	Classification	No. of respondents	Percentage
Location	Kathmandu Valley	96	53
	Biratnagar	27	15
	Hetauda	22	12
	Butwal	20	11
	Others[a]	16	9
	Total	**181**	**100**
Designation	CEO/Director	34	19
	CFO/Financial Manager	96	53
	Chief Accountant/ Account officer	51	28
	Total	**181**	**100**
Age	Below 30	45	25
	30- 45	103	57
	Above 45	33	18
	Total	**181**	**100**
Education/Qualification	Intermediate	47	26
	Bachelor	103	57
	Master Degree	31	17
	Total	**181**	**100**
Experience	Below 10 years	62	34
	10 to 20 years	72	40
	Above 20 years	47	26
	Total	**181**	**100**
Industry representation	Manufacturing	132	73
	Hotel & Trading	49	27
	Total	**181**	**100**

Source: Survey Questionnaire

[a] The others respondents include from Birgunj 4, Chitwan 1, Gorkha 1, Pokhara 4 Nawalparasi 1, Bhairawa 2, and Nepalgunj 3.

The information was also collected on the characteristics of the Chief Financial Executives (CEOs) of the respondent firms. About 57 percent of the respondents were between 30 to 45 years of age category and the 25 percent respondents were below the age of 30. The rest 18 percent of the respondents were above the age of 45. The

CEOs of the sample firms were also well educated; about 57 percent had a Bachelor degree and about 26 percent had a Intermediate certificate and the rest 17 percent had a Master Degree. As regards to the respondents' experiences, about 40 percent of them had 10 to 20 years experiences, about 34 percent of them had below 10 years experiences, while 26 percent had more than 20 years experiences.

Table 6.5 Panel-A, also presents the characteristics of the respondent firms. The total respondents were 181; out of which 132 respondents were from manufacturing and rest 49 were from non-manufacturing (hotel and trading) companies. The majority of the respondents were from manufacturing sectors 73 percent and the rest 27 percent from hotel and trading companies.

Table 6.5 Panel-B
Respondents' profile detailed by employees, sales revenues and total assets

Parameters	Classification	No. of respondents	Percentage
No. of Employees	Below 200 employees	90	50
	200 to 400 employees	78	43
	Above 400 employees	13	7
	Total	**181**	**100**
Sales Revenues (last fiscal year)	Below 300 Millions (Rs)	83	46
	300 Million to 600 Millions (Rs.)	64	35
	Above 600 Millions (Rs.)	34	19
	Total	**181**	**100**
Total assets (last fiscal year)	Below 250 Millions (Rs)	37	20
	250 Million to 500 Millions (Rs.)	119	66
	Above 500 Millions (Rs.)	25	14
	Total	**181**	**100**

Source: Survey Questionnaire

Table 6.5 Panel-B presents the characteristics of employees, sales revenues and total assets. As regard to the total employee 50 percent of the responding firms had below 200 employees. It was followed by 43 percent responding firms had 200 to 400 employees, while 7 percent responding firms had employees above 400.

A large proportion of the respondents (46 percent) had sales below Rs.300 millions and the 35 percent of responding firms had sales Rs. 300 millions to 600 millions. The rest 19 percent firms had sales over Rs. 600 millions. About 66 percent of respondent firms had total assets in between Rs 250 million to Rs.500 million. The other 20 percent responding firms had total assets below Rs. 250 million. The rest 14 percent firms had total assets over Rs. 500 million.

III. Analysis of survey

This section explains the survey results of the corporate financing decisions and practices of the Nepalese managers. The results of the opinion survey on the various issues on the financing policies and practices in Nepalese companies are analyzed, presented and discussed.

1. Financing policies practiced by companies

The question relating to this study was about the financing policies practiced by companies. For this question; formal, informal and no policy options were given. Table 6.6 exhibits that majority (54.1 percent) of the sample firms have formal financing policies. About 13.8 percent of the responding had reported have no financing policy. Table 6.6 demonstrates that the Chi-square value is 15.002 and its p-value is 0.001 which shows the result is significant at 1 percent level of significance. It indicates that there is a significant difference between two groups of companies with respect to their financing policies practiced.

Table 6.6
Financing policies practiced by Nepalese companies (Q.1)

This table shows the responses on "what kinds of financing policies you have practiced in your enterprise?" Categorization of respondents is presented in columns and the types of policy are presented in rows. Chi-square value is also provided in the last column of the table.

Policy	Manufacturing		Hotel & Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Formal Policy	83	62.9	15	30.6	98	54.1	15.002[a] (0.001*)
Informal Policy	34	25.8	24	49.0	58	32.0	
No Policy	15	11.4	10	20.4	25	13.8	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 1%*

a. 0 cells (0%) have expected count less than 5. The minimum expected count is 6.77.

2. Financing policies setters

The second question relating with this study was about "who sets the financing policy in your enterprise?". Table 6.7 reflects that majority of respondents report that financing policy setters are Board of Directors (56.4 percent) and is followed by President/ Managing director (15.5 percent). The important financing policy setters are the General Manager (12.2 percent). In this part Spearman correlation has been calculated to point the rank correlation. The rank correlation coefficient is 0.90. The correlation coefficient of 0.90 indicates that the ranking is highly correlated between the manufacturing and non-manufacturing (i.e. hotel and trading) responses. It means there is no difference between manufacturing and hotel & trading companies about financing policies setters.

Table 6.7
Financing policies setters in Nepalese companies (Q.2)

This table shows the responses on "who sets the financing policy in your enterprise?" Categorization of respondents is presented in columns and the status or position is presented in rows. Chi-square value is also provided in the last column of the table.

	Manufacturing			Hotel & Trading			Total Respondents			Cor.(r_s)
Position	**Number**	**Percentage**	**Rank**	**Number**	**Percentage**	**Rank**	**Number**	**Percentage**	**Rank**	
Board of Directors	81	61.4	1	21	42.9	1	102	56.4	1	0.90[a]
President/ Managing director	21	15.9	2	7	14.3	3	28	15.5	2	
General Manager	12	9.1	3	10	20.4	2	22	12.2	3	
Vice President/ Finance Manager	11	8.3	4	6	12.2	4	17	9.4	4	
Others	7	5.3	5	5	10.2	5	12	6.6	5	
Total	132	100		49	100		181	100		

a. Ranking is highly correlated between manufacturing and hotel& trading.
Source: Survey Questionnaire

3. Influencing parties in setting financial structure

The survey participants were asked to rank several possible influences on their target leverage ratios (question 3). Table 6.8 displays a composite ranking statistic. This item is a weighted average rank for each category (influence) listed in the question. It was derived from all responses to the question and varies inversely with importance of use. That is, the smaller the composite rank measure, the more important the influence on the setting of target leverage ratios. The most important influence is the firm's own management group and staff of analysts. This item accounted for 1.62

weighted average mean. Of the responses ranked number two in importance, commercial bankers dominated the outcomes and accounted for 2.72 mean of such replies. Inspection of the composite ranking statistics shows that trade creditors, and comparison with ratios of industry competitors also have some impact on the determination of leverage targets. Investment bankers, security analysts and trade creditors have only a minimal effect on the development of these targets.

Table 6.8
Influencing parties in setting target financial structure ratios (Q.3)

This table contains the relative importance of capital structure model inputs and/or assumptions in governing financing decisions of Nepalese sample firms (the most important with a 1, next most important with a 2, etc.).

Type of Influence	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Our own management and staff of analysts	1.62	1.11	1	1.85	1.23	1.00	0.00	108.487	0.000	7.950*	131.00	0.000
Investment bankers	4.87	1.65	5	4.39	1.53	6.16	1.21	23.029	0.000	-8.089*	107.78	0.000
Commercial bankers	2.72	1.23	2	2.79	1.40	2.55	0.54	122.629	0.000	1.637	178.68	0.103
Trade creditors	3.19	0.94	3	3.05	1.02	3.57	0.54	15.925	0.000	-4.404*	158.00	0.000
Outside security analysts	5.29	1.49	6	5.58	1.61	4.49	0.62	16.541	0.000	6.603*	178.80	0.000
Comparison with ratio of industry competitors	4.12	1.75	4	4.27	1.75	3.71	1.68	0.258	0.612	1.925	179	0.056
Others	6.18	1.13	7	6.06	1.27	6.51	0.51	117.448	0.000	-3.416*	178.05	0.001

Source: Survey Questionnaire **Significant at 1% , **Significant at 5%*

Table 6.8 also shows the t-statistic at the appropriate number based on the Levene's Test for Equality of variances. A low significant value for t-test (typically p-value less than 0.05) indicates the significant difference between the two group means. Hence,

except for commercial bankers and comparison with ratio of industry competitors, there is a significant difference between the manufacturing and hotel & trading companies about influencing parties in setting target financial structure ratios.

4. Methods for describing financing policies

In order to describe the financing policies of Nepalese companies, five alternatives were given to the respondents: risk avoiding, risk accepting, situational, changes over time and other. In this question, situational is highly ranked 101 respondents out of total 181 (55.8%) and it was followed by risk avoiding (30 responses). The third rank was given to the changes over time and few companies were ranked to the risk accepting and other. The negative Spearman correlation (r_s = -0.10) is found between manufacturing and hotel & trading companies about methods for describing financing policies in Nepalese companies. Table 6.9 indicates that the ranking about the methods for describing financing policies slightly differ between manufacturing companies and hotel & trading companies.

Table 6.9
Methods for describing financing policies in Nepalese companies (Q.4)

This table shows the responses on "how would you describe financing policy in your enterprise?" Categorization of respondents is presented in columns and the methods for describing financing policies is shown in rows Chi-square value is also provided in the last column of the table.

Methods	Manufacturing			Hotel & Trading			Total Respondents			Cor.(rs)
	Number	Percentage	Rank	Number	Percentage	Rank	Number	Percentage	Rank	
Risk avoiding	7	5.3	5	23	46.9	1	30	16.6	2	-0.10
Risk accepting	11	8.3	3	7	14.3	3	18	9.9	4	
Situational	93	70.5	1	8	16.3	2	101	55.8	1	
Changes over time	13	9.8	2	6	12.2	4	19	10.5	3	
Other	8	6.1	4	5	10.2	5	13	7.2	5	
Total	132	100		49	100		181	100		

Source: Survey Questionnaire

5. Tax issues in financing decisions

Table 6.10 shows the responses one of the query that does tax issues have a major influence on your financing decisions (question5). About 100 (55.2%) of the respondents agreed that tax issues have a major influence on their financing decisions and 62 (34.3%) of them were showed their disagreement and 19 (10.5%) were unsure.

The result indicates that majority of the Nepalese firms do regard the tax issues in designing their capital structure and financing decision. The Chi-square value is found insignificant and demonstrates that the types of responses do not deviate substantially from the expected values between manufacturing and Hotel & trading companies. Further it indicates that there is no difference between manufacturing and hotel & trading Companies in Nepal about the tax issues related to financing decisions.

Table 6.10
Tax issues have a major influence on financing decisions (Q.5)

This table shows the responses on "do tax issues have a major influence on your financing decisions?" Categorization of respondents is presented in columns and the response is presented in rows. Chi-square value is also provided in the last column of the table.

Response	Manufacturing		Hotel & Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	76	57.6	24	49.0	100	55.2	2.657a (0.265)
No	45	34.1	17	34.7	62	34.3	
Unsure	11	8.3	8	16.3	19	10.5	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.14.

6. Spare debt capacity

Financial executives were also asked that whether they are following a policy of maintaining spare debt capacity or not. Table 6.11 displays the only 64 (35.4%) respondents answered that they have a policy of maintaining spare debt capacity. The majority or 97 (53.6%) respondents answered that they have no such policy. The 20

Table 6.11
A policy of maintaining spare debt capacity in Nepalese companies (Q.6)

This table shows the responses on "do you have a policy of maintaining spare debt capacity?" Categorization of respondents is presented in columns and the response is presented in rows. Chi-square value is also provided in the last column of the table.

Response	Manufacturing		Hotel & Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	31	23.5	33	67.3	64	35.4	42.069* (0.000)
No	90	68.2	7	14.3	97	53.6	
Unsure	11	8.3	9	18.4	20	11.0	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 1%*

(11%) respondents answered that they were unsure on that matter. The significant chi-square value (p-value = 0.000) indicates that there is significant difference

between manufacturing and hotel & trading companies with respect to the policy of maintaining spare debt capacity.

7. Borrowing interest rate

One question asked to the respondents was whether they could borrow more at the same interest rate. The results have been shown in Table 6.12. The 75 (41.4%) respondents indicated that they could borrow more at the same interest rate. The majority of the respondents (i.e. 79 participants or 43.6%) explicitly stated that they could not borrow more at the same interest rate. The 27 (14.9%) respondents answered that they were unsure on the borrowing more at the same interest rate. Since chi-square value is significant at 5 percent level of significance (p-value = 0.046), it indicates that there is significant difference between manufacturing and hotel & trading companies with respect to the borrowing more at the same interest rate.

Table 6.12
Borrowing more at the same interest rate in Nepalese companies (Q.7)

This table shows the responses on "could you borrow more at the same interest rate?" Categorization of respondents is presented in columns and the types of response are presented in rows. Chi-square value is also provided in the last column of the table.

Response	Manufacturing		Hotel & Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	62	47.0	13	26.5	75	41.4	6.159** (0.046)
No	52	39.4	27	55.1	79	43.6	
Unsure	18	13.6	9	18.4	27	14.9	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire ***Significant at 5%*

8. Off-balance sheet financing techniques

The survey participants were asked that do you make use of off-balance sheet financing techniques. The result is depicted in Table 6.13. The 82 (45.3%) respondents reported that their firm make use the of off-balance sheet financing techniques. The other 76 (42.0%) respondents answered that they do not make use of off-balance sheet financing techniques. Only 23(12.7%) respondents reported that they were unsure on that matter. Significant Chi-square value (p-value = 0.001) indicates that there is significant difference between manufacturing and hotel & trading companies with respect to the use of off-balance sheet financing techniques.

Table 6.13
Use of off-balance sheet financing techniques in Nepalese companies (Q.8)

This table shows the responses on "do you make use of off-balance sheet financing techniques?" Categorization of respondents is presented in columns and types of response are presented in rows. Chi-square value is also provided in the last column of the table.

Response	Manufacturing		Hotel & Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	71	53.8	11	22.4	82	45.3	14.172* (0.001)
No	47	35.6	29	59.2	76	42.0	
Unsure	14	10.6	9	18.4	23	12.7	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 1%*

9. Industry norm for financing decision

Table 6.14 shows the responses of industry norm for financing decision. In the response of the query that do you see your borrowing in industry terms, 52.5% of 181 respondents answered in the affirmative to the question. The 22.1% respondents could not see their borrowing in industry terms. It seems that majority of the sample companies follow borrowings practices in line with industry terms. About 25.4% respondents were unsure on that matter. Chi-square value (p-value = 0.000) indicates that there is significant difference between manufacturing and hotel & trading companies with respect to the use of industry norm for making financing decision.

Table 6.14
Industry norm ever used for financing decision in Nepalese companies (Q.9)

This table shows the responses on "is the concept of an industry norm (standard debt ratios for similar lines of business as your own) ever used by your firm in arriving at a financing decision?" Categorization of respondents is presented in columns and types of responses are presented in rows. Chi-square value is also provided in the last column of the table.

Response	Manufacturing		Hotel & Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	85	64.4	10	20.4	95	52.5	31.252* (0.000)
No	18	13.6	22	44.9	40	22.1	
Unsure	29	22.0	17	34.7	46	25.4	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 1%*

10. Financial Leverage Measures

The relative extent to which the many leverage measures are employed in industry, however, is not generally known. So the financial executives were asked to rank a series of familiar leverage measures in order of importance in their firm's financing-

decision procedures (question 10). The information from these responses is presented in Table 6.15. The composite ranking statistics for each measure are displayed in Table 6.15. The composite ranking statistic ranks total liabilities divided by total assets first in importance, long term debt divided by total assets second, and long term debt divided by net worth third in preference. Among alternatives leverage measures total liabilities divided by total assets (debt ratio) was considered most important in these firms' financing decision procedures.

Table 6.15
Financial leverage measures used in Nepalese companies (Q.10)

Measures	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Total liabilities divided by total assets	2.43	2.52	1	2.73	2.84	1.61	0.93	74.29	0.000	3.97	177	0.000
Long term debt divided by total debt plus net worth	5.01	2.28	6	4.71	2.26	5.80	2.18	1.68	0.197	-2.89	179	0.004
Common equity divided by total assets	4.73	1.91	4	5.20	2.02	3.47	0.62	127.52	0.000	8.79	175	0.000
Long term debt divided by total assets	3.73	1.22	2	3.80	1.12	3.57	1.47	30.57	0.000	0.97	70	0.337
Long term debt divided by net worth	4.31	2.45	3	4.26	1.97	4.47	3.45	102.57	0.000	-0.41	60	0.686
EBIT divided by total interest expense	5.59	1.42	7	5.62	1.62	5.49	0.62	25.71	0.000	0.79	179	0.431
EBIT divided by interest expense plus the before tax equivalent of preferred dividend payment	5.81	2.53	8	5.55	2.90	6.51	0.55	70.84	0.000	-3.62	153	0.000
EBIT plus rent expense plus depreciation expense divided by interest expense plus the before tax equivalent of preferred payment plus rent expense	4.85	2.42	5	4.76	2.52	5.10	2.15	14.40	0.000	-0.91	100	0.364
Others	8.38	0.91	9	8.16	0.98	8.98	0.14	52.91	0.000	-9.36	145	0.000

*Source: Survey Questionnaire *Significant at 1% **Significant at 5%*

The survey result is somewhat surprising that the times-interest ratio was less emphasized by the Nepalese financial executives. Though common equity ratio

gained some preference (i.e. fourth in preference) in their firm's financing decision. The rest of the financial leverage measures were less emphasized by the respondents.

Table 6.15 also shows the t-statistic at the appropriate number based on the Levene's Test for Equality of variances. The significance level of Levene's Test for Equality of Variances decides whether to choose the top row or the bottom row. If it (significance) is less than 0.05, than one should choose the t-value for Equal variances not assumed (the bottom row). If the significance is 0.05 or greater than the t-value for the Equal variances assumed row (the top row) should be used. For leverage measures shown in Table 6.15 except long term debt divided by total debt plus net worth, bottom rows have been chosen to use the t-value. A low significant value for t-test (typically p-value less than 0.05) indicates the significant difference between the two group means. Hence, for five measures out of nine such as: Total liabilities divided by total assets, Long term debt divided by total debt plus net worth, Common equity divided by total assets, EBIT divided by interest expense plus the before tax equivalent of preferred dividend payment, and Others; there is a significant difference between the manufacturing and hotel & trading companies about the financial Leverage Measures used. Since p-value is less than 0.05 for these options, the statistic is considered to be significant and meaning is that one can be 95% confident that the difference between the means of the two groups is not due to chance.

11. Factors governing firms' financing decisions

Respondents were also asked to indicate the relative importance of various factors in governing financing decisions of their firms (question 11). Financial executives' relative disinclination toward capital structure theory, in general, is further reflected in their rankings of twelve factors are summarized in Table 6.16. The median value of composite mean is 2.775. Six of the twelve factors there have mean ranks higher than 2.775. The other six factors have mean rank lower than 2.775. The respondents have indicated rank first for 'projected cash flow or earnings from the assets to be financed' and ranked second for 'financial flexibility' and 'riskiness of the assets to be financed' is ranked third. They have reported lowest order in relative importance for 'others'. The survey results indicate that Nepalese enterprises pay more importance in 'projected cash flow or earnings from the assets to be financed' and 'financial flexibility' in governing financial decisions.

Table 6.16
Factors governing firms' financing decisions in Nepalese companies (Q.11)

This table contains the relative importance of capital structure model inputs and/or assumptions in governing financing decisions of Nepalese sample firms (on a scale of 1 to 5, where 1 = Unimportant and 5 = Important). Means are calculated by assigning scores of 1 through 5 for rankings from "unimportant" to "important", respectively, and by multiplying each score by the fraction of responses within each rank. A score of o is assigned when a source is not ranked.

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Maximizing price of publicly traded securities	2.61	1.35	7	2.11	1.25	3.96	0.20	59.20	0.000	-16.46	148	0.000
Financial flexibility	4.20	0.69	2	4.08	0.71	4.53	0.50	0.44	0.507	-4.04	179	0.000
Cost of bankruptcy	2.18	1.19	9	2.08	1.33	2.43	0.61	79.36	0.000	-2.38	171	0.019
Restrictive covenants of senior securities	1.90	0.97	10	2.04	1.07	1.51	0.51	18.00	0.000	4.49	169	0.000
Projected cash flow or earnings from the assets to financed	4.42	0.99	1	4.42	1.09	4.43	0.65	10.65	0.001	-0.09	144	0.928
Riskiness of the assets to be financed	3.87	1.16	3	3.64	1.24	4.47	0.54	15.79	0.000	-6.20	174	0.000
Avoiding dilution of common shareholders claims	2.32	1.35	8	2.07	1.36	3.00	1.10	5.85	0.017	-4.75	105	0.000
Company credit rating	2.94	1.21	6	2.73	1.30	3.51	0.65	23.74	0.000	-5.36	164	0.000
Transaction costs	3.64	0.89	4	3.71	0.95	3.43	0.68	9.27	0.003	2.23	120	0.027
Personal tax rates of your debt and equity holders	1.88	1.15	11	1.64	0.91	2.51	1.47	72.04	0.000	-3.85	62	0.000
Maintaining comparability with a firms in the industry	3.45	1.13	5	3.80	1.09	2.51	0.58	7.81	0.006	10.27	157	0.000
Others	1.82	1.18	12	1.92	1.31	1.55	0.65	39.36	0.000	2.54	165	0.012

Source: Survey Questionnaire **Significant at 1%* ***Significant at 5%*

The t-statistic based on the Levene's Test for Equality of variances has been displayed in Table 6.16. The p-value of the t-statistic evidenced that most of the factors are significant at 5% level of significance. Hence, except 'projected cash flow or earnings from the assets to financed', for factors governing firms' financing decisions that there is significant difference between manufacturing and hotel & trading companies.

12. Short-, medium- or long –term funding sources

The next question was intended to investigate whether there was a current preference for a particular maturity structure in borrowings. The results are also shown in Table 6.17. As the respondents suggest, attitudes varied considerably but a number of common themes were apparent. Respondents had shown their first ranking on short (up to 1 year) and the second rank on long (>5 years) maturity funding sources. The third rank was put to the 'term does not matter'. The respondents have given last

rank on 'policy of matching assets and liabilities'. The low positive Spearman rank correlation ($r_s = 0.19$) is found between manufacturing and hotel & trading companies about preferences for short-, medium- or long –term funding sources. It indicates that the manufacturing and hotel & trading companies are not significantly different about the preferences for short-, medium- or long-term funding sources.

Table 6.17
Preferences for short-, medium-, or long-term funding sources in Nepalese companies (Q.12)

Methods	Manufacturing			Hotel & Trading			Total Respondents			Cor. (r_s)
	Number	Percentage	Rank	Number	Percentage	Rank	Number	Percentage	Rank	
Short (up to 1 year)	52	39.40	1	7	14.30	3	59	32.60	1	0.19
Medium/Short (up to 3 years)	7	5.30	7	9	18.40	2	16	8.80	4	
Medium (up to 5 years)	9	6.80	5	6	12.20	4	15	8.30	5	
Long (>5 years)	17	12.90	3	13	26.50	1	30	16.60	2	
Policy of matching assets and liabilities	5	3.80	8	4	8.20	6	9	5.00	7	
Term does not matter	24	18.20	2	3	6.10	7	27	14.90	3	
Depends on interest rates	10	7.60	4	5	10.20	5	15	8.30	5	
A balance of short/medium/long	8	6.10	6	2	4.10	8	10	5.50	6	
Total	132	100		49	100		181	100		

Source: Survey Questionnaire

13. Sources of long-term funds for new investment

In another query, financial executives of sample firms were asked to rank the long-term source of funds in order of preference for financing new investments (question 13). Rankings of seven sources of long-term funds by respondents are summarized in Table 6.18. For each source, the mean, standard deviation, and rankings are given. Higher means imply higher preferences.

As indicated, respondents ranked 1 for 'long-term debt' with a mean rank of 4.39 as their first choice. 'Internal equity' was ranked second by the respondents with a mean rank of 3.52, third rank was assigned to 'external common equity' with a mean of 2.59 and straight preferred stock was chosen in next order (2.15). Convertible debt was ranked in lower order than the external common equity and straight preferred stock, even though to some extent Nepalese firms follow the pecking order hypothesis. This result implies that 'long-term debt' was mostly favored and

'convertible debt was found unpopular in responding firms as a source of long-term fund.

The t-statistic based on the 'Levene's Test for Equality of Variances' has been displayed in Table 6.18. The p-value of the t-statistic evidenced that all the factors except 'external common equity' are significant at 5% level of significance. Hence, there is significant difference between manufacturing and hotel & trading companies in respect of preference (choice) for sources of long-term funds for financing new investments.

Table 6.18

Sources of long–term funds in order of preference for financing new investments (Q.13)

This table contains the sources of long –term funds in order of preference for financing new investments of Nepalese sample firms (on a scale of 1 to 5, where 1 = Not important and 5 = Important). Means are calculated by assigning scores of 1 through 5 for rankings from "Not important" to "Important", respectively, and by multiplying each score by the fraction of responses within each rank. A score of o is assigned when a source is not ranked.

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Internal equity	3.52	1.55	2	4.07	1.30	2.06	1.16	0.11	0.742	9.47	179	0.000
External common equity	2.59	1.41	3	2.7	1.37	2.27	1.48	0.03	0.869	1.88	179	0.062
Long-term debt	4.39	1.23	1	4.19	1.34	4.92	0.57	33.23	0.000	-5.11	176	0.000
Convertible debt	1.33	0.68	7	1.4	0.70	1.14	0.61	17.99	0.000	2.43	97	0.017
Straight preferred stock	2.15	1.51	4	2.44	1.56	1.37	1.04	47.53	0.000	5.34	129	0.000
Convertible preference stock	1.49	0.99	6	1.61	1.05	1.16	0.72	22.12	0.000	3.23	125	0.002
Others	2.05	1.19	5	1.84	1.14	2.61	1.13	0.97	0.327	-4.06	179	0.000

*Source: Survey Questionnaire *Significant at 1% **Significant at 5%*

14. Financing with equity issues

One question was included to explore the factors which might companies to make equity issue. The result is shown in Table 6.19. One major circumstance emerged as being likely to trigger an equity issue. It was, to fund a major expansion; about 52.5% of the 181 firms gave the clear answer, said they would make issues for this purpose and it is followed by to reduce leverage if market conditions right (19.3 percent) and thereafter to make an acquisition (13.3 percent). The Chi-square value which is significant at 1 percent level of significance indicates that there is dereference between manufacturing and hotel & trading companies about circumstances making an equity issue.

Table 6.19
Circumstances making equity issue (Q.14)

Methods	Manufacturing		Hotel & Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
To fund a major expansion	82	62.1	13	26.5	95	52.5	33.204* (0.000)
To make an acquisition	9	6.8	15	30.6	24	13.3	
If market conditions is right	6	4.5	6	12.2	12	6.6	
To reduce leverage if market conditions right	28	21.2	7	14.3	35	19.3	
Avoid it	7	5.3	8	16.3	15	8.3	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 1%*

15. Financing with debt issues

One question asked was 'under what circumstances would make a debt issue'. Table 6.20 displays that the majority of respondents (37.0 percent) answered that they were much more likely to fund a major expansion and it is followed by to add to liquidity (22.7 percent) and thereafter 'if market conditions right' (12.7 percent). Very few respondents (7.2 percent) answered that their firms would make a debt issue to make an acquisition. The chi-square value which is significant at 1 percent level of significance indicates that there is difference between manufacturing and hotel & trading companies about the circumstances making a debt issue.

Table 6.20
Circumstances making a debt issue (Q.15)

Methods	Manufacturing		Hotel & Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
To fund a major expansion	59	44.7	8	16.3	67	37.0	35.304* (0.000)
To make an acquisition	8	6.1	5	10.2	13	7.2	
To add to liquidity	35	26.5	6	12.2	41	22.7	
If market conditions right	7	5.3	16	32.7	23	12.7	
To fund a long-term asset if market conditions right	13	9.8	9	18.4	22	12.1	
Avoid it	10	7.6	5	10.2	15	8.3	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 1%*

16. Choice between short-term and long-term debts

With respect to factors affecting firm's choice between short-term and long term debts, first priority is given for 'we except our rating to improve so we borrow short- term until it does', The second priority to 'matching the maturity of debt with the life of assets', the third priority to 'borrow short-term reduces the chance that our firm will want to take on risky projects'. Among the factors displayed in Table 6.21 last priority is given for long -term market rate to decline. The results point out that Nepalese non financial companies decisions regarding the choice between short-term and long term debt is highly affected by 'we except our rating to improve so we borrow short- term until it does.'

Table 6.21
Factors affecting firm's choice between short-term and long-term debts (Q.16)

This table contains the factors affecting firm's choice between short-term and long-term debts (on a scale of 1 to 5, where 1 = not important and 5 = very important).

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Issue short -term debt and waiting for long term market rate to decline	2.14	1.28	6	2.15	1.45	2.12	0.60	83.31	0.000	0.19	177	0.849
Matching the maturity of debt with the life of assets	2.96	1.73	2	3.13	1.77	2.51	1.57	3.89	0.050	2.16	179	0.032
Borrow the short -term so that returns from new projects can be captured by shareholders	2.51	1.22	5	2.83	1.19	1.65	0.86	7.21	0.008	7.33	119	0.000
We expect our rating to improve, so we borrow short-term until it does	3.10	1.64	1	2.64	1.62	4.37	0.86	42.94	0.000	-9.27	158	0.000
Borrowing short-term reduces the chance that our firm will want to take on risky projects	2.80	0.96	3	2.57	0.93	3.43	0.71	4.75	0.031	-6.63	113	0.000
We issue long-term debt to minimize the risk of having to finance in "bad times"	2.63	1.64	4	3.02	1.71	1.57	0.74	113.51	0.000	7.95	175	0.000

*Source: Survey Questionnaire *Significant at 1% **Significant at 5%*

17. Firm's choice to the appropriate amount of debt

Responses on firm's choice to the appropriate amount of debt have been shown in Table 6.22. When asked respondents about the factors affecting firm's choice to the appropriate amount of debt, the first rank has been given for the 'volatility of our earnings and cash flow' and second rank is given for 'financial flexibility, and followed by 'tax advantage of interest deductibility'. Transactions costs and fees for issuing debt have been given the fourth priority.

Table 6.22
Factors affecting Firm's choice to the appropriate amount of debt (Q.17)

This table contains the factors affecting firm's choice to the appropriate amount of debt on a scale of 1 to 5, where 1 = not important and 5 = very important. Means are calculated by assigning scores of 1 through 5 for rankings from "unimportant" to "important", respectively, and by multiplying each score by the fraction of responses within each rank. A score of 0 is assigned when a source is not ranked.

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		ene's Test for Equa of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
advantage of interest deductibility	3.52	1.44	3	3.33	1.64	4.04	0.20	284.77	0.000	-4.92	141	0.000
ntial costs of bankruptcy or near bankruptcy financial distress	2.51	1.36	6	2.70	1.43	2.02	1.03	2.47	0.118	3.04	179	0.003
ncial Flexibility	4.23	0.70	2	4.30	0.46	4.02	1.09	291.72	0.000	1.76	55	0.084
credit rating (as assigned by rating agencies)	1.90	1.32	8	2.19	1.39	1.12	0.63	155.00	0.000	7.07	172	0.000
transactions costs and fees for issuing debt	3.26	1.16	4	3.31	1.32	3.12	0.48	188.83	0.000	1.40	179	0.162
debt levels of other firms in the industry	1.90	0.86	8	2.01	0.90	1.61	0.64	3.36	0.069	2.81	179	0.006
ry to have enough debt so that we are not in an attractive target	2.03	1.25	7	1.85	1.07	2.53	1.56	50.39	0.000	-2.83	65	0.006
nsure that upper management works hard and efficiently	2.93	1.38	5	3.38	1.23	1.73	1.00	26.04	0.000	9.23	106	0.000
volatility of our earnings and cash flows	4.35	0.71	1	4.46	0.50	4.04	1.04	1298.65	0.000	2.72	56	0.009

*Source: Survey Questionnaire *Significant at 1% **Significant at 5%*

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The fifth priority is given' to ensure that upper management works hard and efficiently'. The last priority is equally given to 'our credit rating' and 'the debt levels of other firms in the industry'. It indicates that 'our credit rating' and the debt levels of other firms in the industry' are less emphasized by the non-financial Nepalese companies while determining the appropriate amount of debt.

18. Issue of convertible debt

In a response to a question (Q. 18) about the 'firm ever issued convertible debt' in yes/no question form, all (100 percent) of the respondents reported that they did not issue convertible debt. It indicates that Nepalese sample companies are not issuing any convertible debt.

19. Factors affecting to issue convertible debt (Q.19)

One academic question asked to rank to the different factors affecting to issue convertible debt. The study condition only on whether a firm seriously considered issuing convertibles. The factors used in decisions to issue convertible debt are presented in Table 6.23. The first rank is assigned for 'less expensive than straight debt', and second rank is given 'ability to call force conversion if/when necessary'. The third and forth ranks are assigned to 'stock currently undervalued' and 'inexpensive way to issue delayed common stock' respectively. Among the factors, the last rank is given for 'avoiding short-term equity'. The result indicates that 'less expensive than straight debt' is an important features affecting convertible debt policy. There is moderate evidence that executives like convertibles because of the ability to call or force conversion if/when necessary.

The t-statistic based on the 'Levene's Test for Equality of Variances' has been displayed in Table 6.23. The p-value of the t-statistic evidenced that most of the factors are significant at 1% level of significance. Hence, there is significant difference between manufacturing and hotel & trading companies in respect of preference (choice) on the factors affecting to issue convertible debt.

Table 6.23
Factors affecting to issue convertible debt in Nepalese companies (Q.19)

This table contains the factors affecting to issue convertible debt in Nepalese companies on a scale of 1 to 5, where 1 = not important and 5 = very important. Means are calculated by assigning scores of 1 through 5 for rankings from "unimportant" to "important", respectively, and by multiplying each score by the fraction of responses within each rank. A score of o is assigned when a source is not ranked.

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Inexpensive way to issue delayed common stock	2.72	1.58	4	2.59	1.72	3.06	1.09	32.86	0.00	-2.18	135	0.031
ability to call force conversion if/ when necessary	3.12	1.52	2	2.82	1.67	3.92	0.34	220.48	0.00	-7.17	157	0.000
Stock currently undervalued	2.78	1.60	3	2.37	1.58	3.90	1.03	17.21	0.00	-7.61	132	0.000
To attract investors unsure about riskiness	2.61	1.03	5	2.64	1.15	2.55	0.58	25.16	0.00	0.66	164	0.513
Avoiding short-term equity dilution	2.51	1.35	7	2.86	1.38	1.59	0.67	22.43	0.00	8.20	166	0.000
Other industry firms successfully use convertibles	2.55	1.15	6	2.23	1.13	3.39	0.67	58.35	0.00	-8.39	144	0.000
Less expensive than straight debt	3.34	1.59	1	2.77	1.45	4.90	0.59	212.04	0.00	-14.11	178	0.000

Source: Survey Questionnaire *Significant at 1% **Significant at 5%

20. Firm's decisions about issuing common stock

Respondents were also asked to rank on factors affecting the firm's choice to issue common stock; the first rank is given for 'maintaining target debt-to-equity ratio'. The second, third and forth ranks are given for 'inability to obtain funds using other sources', 'if our stock price has recently risen, the price at which we can issue is high', and 'whether our recent profits has been sufficient to fund our activity' respectively.

Among the factors displayed in Table 6.24, 'earnings per share dilution' is ranked nine and 'providing share to employee as stock option plan' is given last priority. The results indicate that Nepalese non-financial companies do not considered earning per share dilution and providing share to employee as stock option plan while issuing common stock.

Table 6.24
Factors affecting Firm's choice to issue common stock (20)

This table contains the factors affecting firm's choice between short-term and long-term debts (on a scale of 1 to 5, where 1 = not important and 5 = very important).

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel & Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
If our stock price has recently risen, the price at which we can issue is high	3.18	1.32	3	3.12	1.48	3.33	0.75	76.56	0.000	-1.23	163	0.221
Stock is our least risky source of funds	2.73	1.57	5	2.67	1.71	2.92	1.10	38.72	0.000	-1.17	134	0.246
Providing share to employee as stock option plan	2.17	1.13	10	2.37	1.18	1.61	0.73	38.96	0.000	5.18	139	0.000
Maintaining a target debt -to - equity ratio	4.12	0.96	1	3.99	1.05	4.47	0.54	9.81	0.002	-3.99	160	0.000
Using a similar debt/equity ratio as is used by other firms in our industry	2.53	1.21	8	2.33	1.34	3.08	0.45	99.58	0.000	-5.68	178	0.000
Whether our recent profits have been sufficient to fund our activities	2.96	1.78	4	3.12	1.84	2.51	1.52	18.67	0.000	2.27	104	0.025
Issuing stock gives a better impression of our firm's prospects than using debt	2.73	1.45	5	3.14	1.40	1.61	0.86	18.48	0.000	8.83	140	0.000
The capital gains tax rates faced by our investors	2.68	1.33	6	2.5	1.37	3.16	1.09	2.79	0.097	-3.04	179	0.003
Diluting the holdings of certain shareholders	2.59	0.86	7	2.58	0.91	2.61	0.70	3.79	0.053	-0.25	179	0.800
Inability to obtain funds using other sources	3.44	1.33	2	3.02	1.30	4.55	0.50	24.76	0.000	-11.41	179	0.000
Earnings per share dilution	2.48	1.45	9	2.59	1.52	2.18	1.20	13.02	0.000	1.88	108	0.063

Source: Survey Questionnaire **Significant at 1%* ***Significant at 5%*

21. Common stock owned by the largest three stock owners

As regards to the percent of the common stock owned by the largest three stock owners, Table 6.25 displays that the majority (49.2 percent) of the respondents reported that more than 20 percent of the common stock was owned by the largest three stock owners in their companies. The least holdings (less the 5 percent) have been reported by 18.8 percent responding companies. The insignificant Chi-square value indicates that there is no difference between manufacturing and hotel & trading companies about the ownership percentage of largest three stock owners.

Table 6.25
Percent of the common stock owned by the largest three stock owners (Q.21)

Position	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Less than 5%	29	22.0	5	10.2	34	18.8	5.444 (0.142)
5 to 10%	23	17.4	6	12.2	29	16.0	
10 to 20%	18	13.6	11	22.5	29	16.0	
More than 20%	62	47.0	27	55.1	89	49.2	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire

22. People owned the company's common stock

Respondents were also asked to report to the number of people owned the company's common stock. Table 6.26 displays that 24.3 percent respondents reported that their companies' common stock is owned by 500 to 1000 people (stock holders). The table 6.26 also displays that majority (60.2 percent) responding companies' common stock was owned by less than 500 to 1000 people (i.e. shareholders). About 17 percent respondents reports that their common stock was owned by the more than 100,000 people (shareholders). The tabulated results indicate that majority of Nepalese non-financial companies are narrowly held as regard to the ownership structure. Chi-square value is significant at 5 percent level of significance. It indicates that manufacturing and hotel and trading companies are significantly different as regards to the number of people owned the companies' common stock.

Table 6.26
Number of people owned the company's common stocks (Q.22)

Position	**Manufacturing**		**Hotel &Trading**		**Total Respondents**		**Chi-square**
	Number	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	
Up to 100	29	22.0	5	10.2	34	18.8	13.135** (0.022)
100 to 500	24	18.2	7	14.3	31	17.1	
500 to 1000	29	22.0	15	30.6	44	24.3	
1000 to 10,000	7	5.3	9	18.4	16	8.8	
10,000 to 100,000	17	12.9	8	16.3	25	13.8	
100,000+	26	19.7	5	10.2	31	17.1	
Total	132	100	49	100	181	100	

*Source: Survey Questionnaire **Significant at 5%*

23. Issue of right shares

In a query of firm ever issued the right shares as source of equity financing, the majority of the respondents (76.8 percent) answered no. Only 23.2 percent of the respondents reported yes. It indicates that right share issue is less practiced in Nepalese non-financial companies. In Table 6.27, the chi-square value indicates that manufacturing and hotel & trading companies are not different as regard to the right share issues.

Table 6.27
Firm ever issued right share as sources of equity financing (Q.23)

Position	Total Respondents		Manufacturing		Hotel &Trading		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	42	23.2	30	22.7	12	24.5	0.062 (0.803)
No	139	76.8	102	77.3	37	75.5	
Total	181	100	132	100	49	100	

Source: Survey Questionnaire

24. Situation to issue right shares

One open-ended question was asked to the respondents about the situation firms prefer to issue right share. The similar written opinion of the respondents are grouped and presented in Table 6.28. The tabulated results display that highest percentage (32.6 percent) respondents answered for 'to reduce transactions costs/cost of issue', it is followed 19.9 percent for 'new project expansion and to decrease debt'. About 12.2 percent respondents answered for 'to protect shareholders' interest'. Among different situations answered, only 7.2 percent respondents prefer to issue right shares for 'market growth'. The tabulated opinions also indicates that majority of respondents (52.5 percent) prefer to issues right shares 'to reduce transaction costs/cost of issue' and 'for new project expansion and to decrease debt'.

The Chi-square value is significant at 1 percentage level of significance. It indicates that manufacturing and hotel & trading companies are different with respect to the opinion for the situation firms prefer to issue right shares.

Table 6.28
Situation firms prefer to issue right shares (Q.24)

Situation	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
To increase capital	10	7.6	5	10.2	15	8.3	26.698 (0.000)
For market growth	7	5.3	6	12.2	13	7.2	
to reduce transaction costs/cost of issue	54	40.9	5	10.2	59	32.6	
For increment of current assets	9	6.8	7	14.3	16	8.8	
If debt financing difficult, prefer right share issue	8	6.1	12	24.5	20	11.0	
New project expansion and to decrease debt	28	21.2	8	16.3	36	19.9	
To protect shareholders' interest	16	12.1	6	12.2	22	12.2	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 1%*

25. Borrowing in relation to equity capital (Q.25)

In answering the deep rooted in the literature of how much a company should borrow in relation to its equity capital i.e. the optimal of capital structure, Nepalese financial executives seem to be on the providence side. Table 6.29 shows the response on the matters of the optimal capital structure.

In a response to that question, the 42.5 percent, respondents state that the optimal level of capital structure should have a debt/equity ratio more than 1:1 but less than or equal to 2:1. There are 32.0 percent respondents whose report that appropriate level of company borrowing in relation to equity capital should be less than or equal to 1:1 of debt to equity. Only 25.4 percent respondents state that appropriate level of the borrowing should be more than 2:1 but less than or equal to 3:1 of debt to equity. The Table 6.29 shows that majority in aggregate (74.5 percent) Nepalese financial executives are in favor of choosing maximum level of company borrowing in relation to equity.

The Chi-square value is significant at 1 percent level of significant. It shows that Manufacturing companies are different regarding the choice of the appropriate level of company borrowing in relation to equity capital.

Table 6.29
Level of company borrowing in relation to equity capital (Q.25)

Borrowing	Manufacturing		Hotel &Trading		Total Respondents			Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	Rank	
Less than or equal to 1:1 of debt to equity	51	38.6	7	14.3	58	32.0	2	10.243 (0.006)
More than 1:1 but less than or equal to 2:1 of debt to equity	49	37.1	28	57.1	77	42.5	1	
More than 2:1 but less than or equal to 3:1 of debt to equity	32	24.2	14	28.6	46	25.4	3	
Total	132	100.0	49	100.0	181	100.0		

*Source: Survey Questionnaire *Significant at 1%*

26. Owners related factors influencing capital Structure

The survey participants were asked to rank several possible influences on the capital structure. Table 6.30 displays the views of responses in terms of ranking. The results indicate that the highest mean ranking is assigned for the goals (4.45), it followed by knowledge (4.31), need for control (4.13). Three of the six factors there have mean rank of more than 3.88. The results indicate that goals, knowledge, and need for control are considered as important owner related factors influencing capital structure.

Table 6.30
Owners' characteristics factors influencing capital structure (Q.26)

This table contains the factors affecting firm's choice between short-term and long-term debts (on a scale of 1 to 5, where 1 = not important and 5 = very important).

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Need for control	4.13	0.792	3	4.17	0.90	4.02	0.38	149.89	0.000	1.62	176	0.107
Knowledge	4.31	0.74	2	4.07	0.72	4.96	0.20	14.65	0.000	-12.90	171	0.000
Experience	3.62	1.296	4	3.46	1.48	4.06	0.24	99.55	0.000	-4.49	148	0.000
Goals	4.45	0.756	1	4.59	0.59	4.08	1.00	123.30	0.000	3.36	61	0.001
Risk propensity	3.47	1.057	5	3.11	0.93	4.45	0.71	1.33	0.250	-9.19	179	0.000
Perceptions and beliefs about external finance	2.58	0.978	6	2.41	0.90	3.04	1.04	13.98	0.000	-3.76	76	0.000

*Source: Survey Questionnaire *Significant at 1% **Significant at 5%*

As regard to the ranking differences, p-value of the t-statistics indicates that manufacturing and hotel & trading companies are significantly different except need for control.

27. Firm related factors influencing capital Structure

Respondents indicated a preference for firms' characteristics factors influencing capital structure. Ranking of eight factors by respondents who expressed this preference are summarized in Table 6.31. For each source, the mean of the rankings are given. Higher means imply higher preferences. As indicated, the highest mean ranking is assigned for the liquidity (4.86). Similarly tax dominates size and their mean ranks are 4.20 and 4.11 respectively. Four of the eight factors there have mean ranks higher than of 3.64 (i.e. median value of composite means). It indicates that liquidity, tax, size and other variables are considered by the Nepalese financial executives as important factors influencing capital structure**.**

Table 6.31
Firm characteristics factors influencing capital structure (Q.27)

This table contains the factors affecting firm's choice between short-term and long-term debts (on a scale of 1 to 5, where 1 = not important and 5 = very important).

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Liquidity	4.86	0.36	1	4.83	0.38	4.96	0.29	23.67	0.000	-2.54	114	0.013
Size	4.11	0.92	3	4.30	0.46	3.59	1.49	1025.21	0.000	3.29	51	0.002
Tax	4.20	0.73	2	4.30	0.80	3.94	0.43	84.28	0.000	3.85	156	0.000
Business Risk	3.45	0.65	5	3.59	0.62	3.08	0.57	33.19	0.000	5.21	92	0.000
Tangibility of assets	3.32	0.96	7	3.08	1.03	3.96	0.20	38.27	0.000	-9.34	155	0.000
Uniqueness	3.40	0.69	6	3.36	0.72	3.51	0.58	2.86	0.093	-1.34	179	0.182
Non-debt tax shields	3.13	1.04	8	3.31	1.08	2.65	0.72	10.27	0.002	4.71	128	0.000
Others	3.83	0.83	4	3.77	0.95	3.98	0.32	46.23	0.000	-2.19	178	0.030

Source: Survey Questionnaire

As regard to the ranking differences, p-value of the t-statistics indicates that manufacturing and non-manufacturing (hotel & trading) companies are significantly different in case of liquidity, size, tax, business risk, tangibility of assets, non-debt tax shield, and others.

28. Other external factors influencing capital Structure

A question that was also asked to the respondents was to rank the other external factors influencing capital structure. Among the factors in Table 6.32, the availability of the funds (4.36), conditions in the market (4.30), state of the economy (4.25) have the highest mean ranks. The findings strongly suggest that the availability of the funds, conditions in the market, and state of the economy are considered the important other external factors influencing capital structure in Nepal.

Table 6.32

Other external characteristics factors influencing capital structure in Nepalese companies (Q.28)

This table contains the factors affecting firm's choice between short-term and long-term debts (on a scale of 1 to 5, where 1 = not important and 5 = very important). Means are calculated by assigning scores of 1 through 5 for rankings from "not important" to "very important", respectively, and by multiplying each score by the fraction of responses within each rank. A score of o is assigned when a source is not ranked.

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
State of the economy	4.25	0.93	3	4.33	1.06	4.04	0.29	126.76	0.000	2.90	170	0.004
Condition of the market	4.30	0.82	2	4.59	0.71	3.51	0.51	2.52	0.114	9.78	179	0.000
Availability of fund	4.36	0.76	1	4.47	0.62	4.06	0.99	98.27	0.000	2.70	63	0.009
Industry characteristics	3.52	1.00	5	3.67	0.93	3.12	1.09	16.97	0.000	3.14	75	0.002
Government policy	3.99	1.41	4	4.29	0.97	3.18	2.00	159.49	0.000	3.71	57	0.000

Source: Survey Questionnaire **Significant at 1%* ***Significant at 5%*

29. Capital structure improves investors' earnings

Respondents were asked to score how capital structure improves investors' earnings about their agreement. Table 6.33 displays that majority of the respondents (51.9 percent) agreed on the issue. The 17.7 percent of the respondents are strongly agreed. Among total respondents, only 12.2 percent respondents are in doubt about capital structure improves investors' earnings. The 10.5 percent and 7.7 percent of the respondents are disagreed and strongly disagreed respectively. The results indicates that capital structure seem to improve investors, earnings.

The chi-square value reports that manufacturing and hotel & trading companies are different on the statement that capital structure improves investors' earnings.

Table 6.33
Capital structure improves investors' earnings (Q.29)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Strongly agreed	25	18.9	7	14.3	32	17.7	11.134** (0.025)
Agreed	76	57.6	18	36.7	94	51.9	
Undecided	12	9.1	10	20.4	22	12.2	
Disagreed	11	8.3	8	16.3	19	10.5	
Strongly disagreed	8	6.1	6	12.2	14	7.7	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire ***Significant at 5%*

30. Higher long-term debt to equity reduces profitability

One question asked to the respondents was whether higher ratio of long-term debt to equity causes firms to reduce their profitability or not. As shown in Table 6.34, about 38.1 percent of respondents are agreed, another 18.2 percent are strongly agreed but 16.0 percent are unclear about the statement. As majority of the respondents showed their agreement (strongly agreed and agreed), it can be concluded that higher ratio of long-term debt to equity causes firms to reduce their profitability. The insignificant Chi-square value indicates that manufacturing and hotel & trading companies are not different about the statement that higher ratio of long-term debt to equity causes firms to reduce their profitability.

Table 6.34
Higher ratio of long-term debt to equity causes firms to reduce their profitability (Q.30)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Strongly agreed	22	16.7	11	22.4	33	18.2	1.466 (0.833)
Agreed	53	40.2	16	32.7	69	38.1	
Undecided	20	15.2	9	18.4	29	16.0	
Disagreed	19	14.4	7	14.3	26	14.4	
Strongly disagreed	18	13.6	6	12.2	24	13.3	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire

31. Factors influencing firm's profitability

A better understanding of the factors influencing firm's profitability can be gained by examining financial executives' ranking of seven inputs and/or assumptions. Table 6.35 summarized those ranking. Among the inputs/ factors, growth (4.45), assets turnover (4.20), debt (3.78), and size (3.66) have highest mean respectively. Four of the seven factors, there have mean ranks of 3.66 or higher. The factors in Table 6.35 indicate that growth, assets turnover, debt, and size are considered the important factors influencing the firm's profitability.

Table 6.35
Factors influencing firm's profitability in Nepalese companies (Q.31)

This table contains the factors affecting firm's choice between short-term and long-term debts (on a scale of 1 to 5, where 1 = not important and 5 = very important). Means are calculated by assigning scores of 1 through 5 for rankings from "not important" to "very important", respectively, and by multiplying each score by the fraction of responses within each rank. A score of o is assigned when a source is not ranked.

Factors	All Sample (n=181)			Manufacturing (n=132)		Hotel &Trading (n=49)		Levene's Test for Equality of Variances		t-test for Equality of Means		
	Mean	S.D.	Rank	Mean	S.D.	Mean	S.D.	F-value	Sig.	t-value	df	p-value
Debt	3.78	1.28	3	3.51	1.37	4.53	0.50	86.93	0.000	-7.33	179	0.000
Size	3.66	0.72	4	3.86	0.71	3.12	0.44	21.23	0.000	8.43	138	0.000
Growth	4.45	0.95	1	4.25	1.04	4.98	0.14	175.21	0.000	-7.84	144	0.000
Assets Turnover	4.20	1.17	2	3.91	1.25	4.98	0.14	460.28	0.000	-9.67	140	0.000
Tangibility of assets	2.96	1.45	6	2.89	1.56	3.14	1.06	6.88	0.009	-1.26	126	0.210
Liquidity	3.49	0.88	5	3.62	0.95	3.14	0.50	48.81	0.000	4.37	159	0.000
Age	1.96	1.41	7	1.90	1.62	2.10	0.55	75.21	0.000	-1.24	178	0.216

*Source: Survey Questionnaire *Significant at 1% **Significant at 5%*

As evidenced by p-value of the t-test, the manufacturing and hotel & trading companies are different with respect to ranking of factors influencing firm's profitability except for tangibility of assets and other.

32. Debt in firm's capitalization lower overall cost of capital

One of the questions asked to the respondents is 'Does your firm believe that the use of a proper amount of debt in its capitalization will result in a lower overall cost of capital to the corporation?'. Table 6.36 demonstrates that majority of the respondents

(59.7%) provided the affirmative answer; while 31.5% respondents are unsure but only 8.8% respondents are against the issue that use of a proper amount of debt in its capitalization will result in a lower overall cost of capital to the corporation. The Chi-square value indicates that there is significant different between manufacturing and hotel & trading companies with respect to the use of proper debt level will result in lower overall cost of capital.

Table 6.36
Proper debt level in firm's capitalization will result in lower overall cost of capital (Q.32)

	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
Response	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	77	58.3	31	63.3	108	59.7	7.027** (0.030)
No	8	6.1	8	16.3	16	8.8	
Unsure	47	35.6	10	20.4	57	31.5	
Total	132	100	49	100	181	100	

*Source: Survey Questionnaire **Significant at 5%*

33. Estimating company's cost of capital

The duration for the estimating of the company's cost of capital is also an important part of the corporate financing policies. Table 6.37 shows the different time periods like annually, every investment, infrequently, and other. When respondents are asked to rate the period of the estimating the company's cost of capital, their first common practice is every investment basis (44.2%), and it is followed by annually practice (28.7%). Some companies are also following infrequently and other time dimension. It reveals that Nepalese companies have first priority for estimating cost of capital on an every investment basis. The Chi-square value indicates that there is no significant different between manufacturing and hotel & trading companies with respect to the frequency in estimating cost of capital.

Table 6.37
Frequency in estimating company's cost of capital (Q33)

Frequency	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Annually	42	31.8	10	20.4	52	28.7	5.044 (0.169)
Every investment	59	44.7	21	42.9	80	44.2	
Infrequently	23	17.4	11	22.4	34	18.8	
Other	8	6.1	7	14.3	15	8.3	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire

34. Estimating before tax cost of debt

One question was asked about the methods to estimate before tax cost of debt. Table 6.38 shows that 38.7% respondents report that current average is used to estimate before tax cost of debt in their firms and it is followed by marginal cost (32%) and their after other (19.3%) but 9.9% respondents are uncertain about the method to estimate before tax cost of debt. The tabulated results indicate that current average and marginal cost methods are mostly used in Nepalese companies as methods to estimate before tax cost of debt. The Pearson Chi-square test shows a p-value of 0.001, i.e. p-value <0.05. The null hypothesis was, therefore, rejected at 95% confidence level and the alternative hypothesis was retained. It was concluded that there is a significant different between manufacturing and hotel & Trading companies with respect to the choice of methods to estimate before tax cost of debt.

Table 6.38
Methods to estimate before tax cost of debt (Q34)

Method	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Marginal cost	32	24.2	26	53.1	58	32.0	16.302* (0.001)
Current average	60	45.5	10	20.4	70	38.7	
Uncertain	12	9.1	6	12.2	18	9.9	
Other	28	21.2	7	14.3	35	19.3	
Total	132	100	49	100	181	100	

*Source: Survey Questionnaire *Significant at 1%*

35. Estimating cost of equity

The survey results appear in Table 6.39. The results indicate that dividend growth model is by far the most popular method of estimating the cost of equity capital: 54.7 percent of respondents always or almost always use the dividend growth model. The second and third most popular method are other and CAPM, respectively. Arbitrage pricing model is almost not found in practice in Nepalese financial market as no one respondents assigned affirmative on this option. This finding is more or less similar to the findings of Gitman and Mercurio (1982) who survey 177 Fortune 1000 firms and find that only 29.9 percent of respondents use the CAPM but find that 31.2 percent of the participants in their survey use a version of the dividend discount model to estimate their cost of capital. The finding of this study is in contrasts with the finding

of the Bruner, Eades, Harris, and Higgins (1998) find that 85 percent of their 27 best-practice firms use the CAPM or a modified CAPM. While the CAPM is popular in the developed capital marker but it is less practiced in Nepalese companies. The Speaman correlation coefficient of 0.90 indicates that manufacturing and hotel companies are very much similar as regard to the ranking.

Table 6.39
Methods for estimating cost of equity (Q.35)

Methods	Manufacturing			Hotel &Trading			Total Respondents			Cor (r_s)
	Number	Percentage	Rank	Number	Percentage	Rank	Number	Percentage	Rank	
CAPM	9	6.8	3	6	12.2	4	15	8.3	3	0.90
Modified CAPM	7	5.3	4	7	14.3	3	14	7.7	4	
Dividend Growth Model	76	57.6	1	23	46.9	1	99	54.7	1	
Arbitrage Pricing Model	0	0	5	0	0	5	0	0	5	
Other	40	30.3	2	13	26.5	2	53	29.3	2	
Total	132	100		49	100		181	100		

Source: Survey Questionnaire

36. Weighting factors in weighted average cost of capital

Table 6.40 shows the responses on various weighting factors used in computing weighted average cost of capital**.** The current market weights occupy the top (34.3 percent) of the choice, followed by current book weights (29.3 percent), target debt/equity (27.1 percent), and other (9.4 percent) respectively. The result indicates that different weighted methods are more or less used by the Nepalese financial executives. The significant Chi-square value reports that manufacturing and hotel & trading companies are not different on the choice of weighting factors.

Table 6.40
Weighting factors used in computing weighted average cost of capital (Q.36)

Weighting factors	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Target debt/equity	24	18.2	25	51.0	49	27.1	22.428* (0.000)
Current book weights	45	34.1	8	16.3	53	29.3	
Current market weights	52	39.4	10	20.4	62	34.3	
Other	11	8.3	6	12.2	17	9.4	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 1%*

37. Further adjustment on estimated cost of capital

In order to explore how the cost of equity models are used, respondents were asked to answer the question that having estimated your company's cost of capital, do you make any further adjustments to reflect the risk of individual investment opportunities. The Table 6.41 shows that the majority of the respondents (55.2 percent) provided the affirmative answer. Only 27.1 percent respondents gave negative answer. The unsure answer is also delivered by the 17.7 percent of the respondents. The result indicates that Nepalese financial executives usually make further adjustment on estimated cost capital to reflect the risk of individual investment opportunities. The chi-square value provides the evidence that there is difference between the manufacturing and hotel companies with respect to the adjustment on estimated cost of capital.

Table 6.41
Further adjustment on estimated cost of capital to reflect risk of individual investment (Q.37)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	73	55.3	27	55.1	100	55.2	7.374** (0.025)
No	41	31.1	8	16.3	49	27.1	
Unsure	18	13.6	14	28.6	32	17.7	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire **Significant at 5%*

38. Cost of capital used other than project analysis

In response on the question that is the cost of capital used for purposes other than project analysis in your company, majority of the respondents (74.6 percent) state the affirmative answer. The 14.4 percent respondents are unsure on that matter. Table 6.42 indicates that Nepalese financial executives prefer to use cost of capital for purposes other than project analysis.

Table 6.42
Cost of capital used for purposes other than project analysis (Q.38)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	112	84.8	23	46.9	135	74.6	31.985* (0.000)
No	12	9.1	8	16.3	20	11.0	
Unsure	8	6.1	18	36.7	26	14.4	
Total	132	100	49	100	181	100	

*Source: Survey Questionnaire *Significant at 1%*

The Chi-square value points out that manufacturing and hotel & trading companies are different for the use of cost of capital for purposes other than project analysis.

39. Firm's market value and choice of capital structure

Table 6.43 shows that 42.5% of total respondents affirmed that a firm's market value is directly related to its choice of capital structure and 18.8% of the respondents strongly agreed, but 14.9% respondents were strongly disagreed and 13.8% of the respondents were disagreed, while 9.9% respondents were undecided. This suggests that there is a significant relationship between a firm's market value and its choice of capital structure. The Chi-square value indicates that manufacturing and hotel & trading companies are not different with respect to the agreement that a firm's market value is directly related to its choice of capital structure.

Table 6.43
Firm's market value is directly related to its choice of capital structure (Q.39)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Strongly agreed	35	26.5	9	18.4	44	24.3	7.299 (0.121)
Agreed	65	49.2	19	38.8	84	46.4	
Undecided	13	9.8	7	14.3	20	11.0	
Disagreed	11	8.3	6	12.2	17	9.4	
Strongly disagreed	8	6.1	8	16.3	16	8.8	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire

40. Excessive debt and market price

One question asked respondents if the use of an excessive amount of debt would eventually result in the market price of their firms' stock in an adverse way.

Table 6.44
Excessive amount of debt will eventually result in market price be affected (Q.40)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	82	62.1	34	69.4	116	64.1	1.087 (0.581)
No	26	19.7	9	18.4	35	19.3	
Unsure	24	18.2	6	12.2	30	16.6	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire

Table 6.44 shows that majority (64.1%) of the respondents provided affirmative answer, but 19.3% respondents were against the statement, while 16.6% respondents were unsure. The insignificant Chi-square value indicates that there is no difference between manufacturing and hotel & trading companies on the statement that excessive amount of debt will eventually result in market price in an adverse way.

41. Leveraged capital structure and high market value

It is observed from Table 6.45 that 111 respondents representing 61.3% of the total affirmed (strongly agreed and agreed) those firms with debt in their capital structure tend to have high market values than firms with only equity capital, but 27 respondents (14.9%) were strongly disagreed, while 25 respondents (13.8%) disagreed. The 18 respondents (9.9%) were undecided. This indicates that the utilization of debt capital in the capital structure of a firm does make it have higher market value than a firm without debt capital in its capital structure. The insignificant Chi-square value shows that manufacturing and hotel & trading companies are not different about the agreement that the utilization of debt capital in the capital structure of a firm does make it have higher market value than a firm without debt capital in its capital structure.

Table 6.45
Leveraged capital structure has high market value than firms with equity capital (Q.41)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Strongly agreed	26	19.7	8	16.3	34	18.8	3.044 (0.550)
Agreed	58	43.9	19	38.8	77	42.5	
Undecided	11	8.3	7	14.3	18	9.9	
Disagreed	16	12.1	9	18.4	25	13.8	
Strongly disagreed	21	15.9	6	12.2	27	14.9	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire

42. Proxy (measure) for firm value

As regard to the appropriate proxy (measure) for firm value, the respondents have chosen earnings per share as best measure. The market value of debt plus equity stood as the second priority. The price/earnings ratio and Tobin-q are in third and fourth

choice respectively. Among the measures displayed in Table 6.46, last priority is given for earnings value added. The positive Spearman correlation coefficient (r_s = 0.77) indicates that the choice of measure of firm value is similar between manufacturing and hotel & trading companies.

Table 6.46
Most appropriate proxy (measure) for firm value (Q.42)

Response	Manufacturing			Hotel &Trading			Total Respondents			Cor (r_s)
	Number	Percentage	Rank	Number	Percentage	Rank	Number	Percentage	Rank	
Total market value of debt plus equity	28	21.2	2	5	10.2	4	33	18.2	2	0.77
Price earnings ratio	24	18.2	3	6	12.2	3	30	16.6	3	
Earnings value added	8	6.1	6	3	6.1	6	11	6.1	6	
Tobin-q	10	7.6	4	7	14.3	2	17	9.4	4	
Earnings per share	53	40.2	1	24	49.0	1	77	42.5	1	
Other	9	6.8	5	4	8.2	5	13	7.2	5	
Total	132	100		49	100		181	100		

Source: Survey Questionnaire

43. Debt-equity mix a determinants for market value

Table 6.47 shows that 97 respondents representing 53.6 percent of the total respondents are in favor of statement that debt-equity mix is as determinants for market value in Nepal but 49 respondents (27.1%) were against the statement, while 35 respondents (19.3%) were unsure. This implies that firms can only maximize their market values by an appropriate capital mix of debt and equity capital. The Chi-square value indicates that manufacturing and hotel &trading companies are not different about the favor of statement that debt-equity mix is as determinants for market value in Nepal.

Table 6.47
Debt-equity mix is as determinants for market value in Nepal (Q.43)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Yes	71	53.8	26	53.1	97	53.6	0.505 (0.777)
No	37	28.0	12	24.5	49	27.1	
Unsure	24	18.2	11	22.4	35	19.3	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire

44. Focus on market value maximization in deciding capital structure

Table 6.48 displays that 62 respondents representing 34.3% of the total strongly agreed (affirmed) that maximizing a firm's market value should be the major focus when deciding its choice of capital structure, while 61 respondents (33.7%) agreed but 25 or 13.8% of the respondents were undecided, while that of 19 or 10.5% respondents disagreed. This implies that, when deciding a firm's choice of capital structure, maximizing its market value should be its major focus since majority of the respondents (strongly agreed and agreed) affirmed the statement. The Chi-square value is significant at 5% level of significance, manufacturing and hotel & trading companies are different about the agreement that maximizing a firm's market value should be the major focus when deciding its choice of capital structure.

Table 6.48

Maximizing a firm's market value as the main focus in deciding of capital structure (Q.44)

Response	Manufacturing		Hotel &Trading		Total Respondents		Chi-square
	Number	Percentage	Number	Percentage	Number	Percentage	
Strongly agreed	54	40.9	8	16.3	62	34.3	12.560** (0.014)
Agreed	42	31.8	19	38.8	61	33.7	
Undecided	18	13.6	7	14.3	25	13.8	
Disagreed	10	7.6	9	18.4	19	10.5	
Strongly disagreed	8	6.1	6	12.2	14	7.7	
Total	132	100	49	100	181	100	

Source: Survey Questionnaire ***Significant at 5%*

6.5. Discussion

To sum up a, study of financing policies and practices in Nepalese companies has revealed some facts and features to investigate the factors determining their optimal capital structure and financing patterns. The analysis of the primary information indicates that Nepalese sample firms there have formal financing policies and major financing policy setters are Board of Directors and President/ managing director percent. Their financing decisions are made using the information provided by own management and staff analysis, Thus, more important influence on the setting of target leverage ratios is found from the firm's own management group and staff of analysts. The 'situational' and 'risk avoiding' are the two important methods used to describe the financing policies in Nepalese companies.

The survey result indicates that majority of the Nepalese firms regard the tax issues in designing their capital structure and financing decision. Similar result has been obtained from secondary data analysis as tax has been considered an influencing variable in designing capital structure. Further, Nepalese firms have a policy of maintaining spare debt capacity. They could not borrow more at the same interest rate. Nepalese firms make use the of off-balance sheet financing techniques. Majority of the sample Nepalese companies do follow industry norms for their financing decision. Among alternatives leverage measures, total liabilities divided by total assets (debt ratio) was considered most important leverage measure in Nepalese firms' financing decision procedures.

The survey results indicate that Nepalese enterprises pay more importance in 'projected cash flow or earnings from the assets to be financed' and 'financial flexibility' in governing financial decisions. Attitudes varied considerably about the preferences for short-, medium- or long-term funding sources but a common theme was apparent. Nepalese firm prefer short (up to 1 year) followed by long (>5 years) maturity funding sources. As a source of long-term fund, Nepalese financial executives prefer 'long-term debt' as their most favorite followed by 'Internal equity' and 'external common equity' respectively, they do not strictly follow pecking order hypothesis.

The survey has explored the circumstances relating to companies making equity issue. One major circumstance for an equity issue is 'to fund a major expansion' and it is followed by 'to reduce leverage if market conditions right' and thereafter 'to make an acquisition'. There is significant difference between manufacturing and hotel & trading companies about circumstances making an equity issue. The foremost circumstance to make a debt issue is 'to fund a major expansion' and the next major circumstance is 'to add to liquidity'. Nepalese non financial companies' decisions regarding the choice between short-term and long term debt is highly affected by 'we except our rating to improve so we borrow short- term until it does' as well as 'matching the maturity of debt with the life of assets'. As regard to the factors affecting firm's choice to the appropriate amount of debt, the most important factor is 'volatility of our earnings and cash flow' and the next important factor stood 'financial flexibility, and followed by 'tax advantage of interest deductibility'.

Nepalese sample companies are not much more interested in issuing convertible debt. The survey further provided the evidence that among the factors affecting to issue convertible debt, 'less expensive than straight debt' is an important factor affecting convertible debt policy and the next important factor is the 'ability to call or force conversion if/when necessary'.

As regard to the factors affecting the firm's choice to issue common stock, the most important factor is 'maintaining target debt-to-equity ratio'. The factors on next order of importance are: 'inability to obtain funds using other sources', 'if our stock price has recently risen, the price at which we can issue is high', and 'whether our recent profit has been sufficient to fund our activity' respectively. The survey evidence indicates that more than 20 percent of the common stock is owned by the largest three stock owners in their companies. The least holdings are about less the 5 percent. The majority (60.2 percent) responding companies' common stock was owned by less than 500 to 1000 people (i.e. shareholders). The majority of the Nepalese companies did not issue right share. Only little number of the companies did issue right share. It indicates that right share issue is less practiced in Nepalese non-financial companies. As regard to the situation firms prefer to issue right share, similar written opinion of the respondents are grouped and analyzed. The survey opinions indicates that majority of Nepalese companies prefer to issues right shares 'to reduce transaction costs/cost of issue' and 'for new project expansion and to decrease debt'. As regard to the 'how much a company should borrow in relation to its equity capital, the survey result indicates that the optimal level of debt/equity ratio is more than 1:1 but less than or equal to 2:1. Majority (in aggregate) of Nepalese financial executives are in favor of choosing 2:1 or less of company borrowing in relation to equity.

Different factors affecting capital structure have been identified by classifying them into "owners' characteristics factors", "firm characteristics factors" and "other external characteristics factors". Important owner related factors influencing capital structure are: goals, knowledge, and need for control. Important firm characteristics factors influencing capital structure are: liquidity, tax, size and others. The result shows that the availability of the funds, conditions in the market, and state of the economy are considered the important other external factors influencing capital structure in Nepal.

Nepalese financial executives have asserted that capital structure improves investors' earnings. But higher ratio of long-term debt to equity causes firms to reduce their profitability. The survey has explored the key factors influencing firm's profitability by analyzing financial executives' ranking of seven inputs and/or factors. The result shows that growth, assets turnover, debt, and size are considered as the important factors influencing the firm's profitability.

Majority of the corporate executives believe that proper debt level will result in lower overall cost of capital. The duration for the estimating of the company's cost of capital is also an important part of the corporate financing policies. The survey reveals first priority for estimating cost of capital on an 'every investment' basis and it follows 'infrequently'. The methods to estimate before tax cost of debt have also been identified through questionnaire survey. 'Current average' is mostly preferred and it follows 'marginal cost' to estimate before tax cost of debt in Nepalese companies. The survey results indicate that dividend growth model is by far the most popular method of estimating the cost of equity capital the second and third most popular method are other and CAPM, respectively in Nepalese sample companies. This finding is more or less similar to the findings of Gitman and Mercurio (1982) but the finding of this study is in contrasts with the finding of the Bruner, Eades, Harris, and Higgins (1998) find that 85 percent of their 27 best-practice firms use the CAPM or a modified CAPM.

The survey has uncovered the fact about weighting factors. The result indicates that 'current market weights' occupy the top of the choice, followed by 'current book weights' in computing weighted average cost of capital in Nepalese sample companies. With respect to the further adjustments to be made having estimated to the cost of capital to reflect the risk of individual investment opportunities, the majority of the respondents provided the affirmative answer. The result indicates that Nepalese financial executives usually make further adjustment on estimated cost capital to reflect the risk of individual investment opportunities. Since majority of the respondents state the positive answer on the use cost of capital for purposes other than project analysis. The survey result indicates that Nepalese financial executives prefer to use cost of capital for purposes other than project analysis.

The survey has provided the evidence that a firm's market value is directly related to its choice of capital structure. There exists a significant relationship between a firm's market value and its choice of capital structure in Nepalese companies, but the use of an excessive amount of debt would eventually results in the market price of their firms stock being adversely affected. The utilization of debt capital in the capital structure of a firm does make it have higher market value than a firm without debt capital in its capital structure. The most appropriate proxy (measure) for firm value is earnings per share, it followed by market value of debt plus equity. The price/earnings ratio and Tobin-q are in third and fourth choice respectively as appropriate proxy (measure) for firm value. Debt-equity mix is as major determinants of market value in Nepal. This implies that firms can only maximize their market values by an appropriate capital mix of debt and equity capital. Maximizing a firm's market value has been found as the major focus when deciding its choice of capital structure in Nepal.

CHAPTER VII

SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1 Summary

The capital structure choices or financing policies have long been the issue of great interest in the corporate finance literature. This interest is due to the fact that the mix of a fund (leverage ratio) affects availability of capital, profit, cost and eventually firms' value. There is another possibility that perhaps, financing doesn't matter. Modigliani and Miller (1958) asserted that financing doesn't matter in perfect capital markets. For regulators and policymakers, the Modigliani and Miller propositions are the ideal end results. If that result could be achieved in practice, then investors' diverse demands for specialized securities would be satisfied at negligible cost. All firms would have equal access to capital, and the cost of capital would not depend on financing but only on business risk. Capital would flow directly to its most efficient use. Therefore public policy should accommodate financial innovation because it makes financing decisions unimportant. But for students or practitioners of corporate finance, the Modigliani and Miller (1958) propositions are benchmarks, not end results. The propositions say that financing does not affect value except for specifically identified costs or imperfections.

The logic of the Modigliani and Miller (1958) results is now widely accepted. The Modigliani and Miller perspective has been supported by other researchers such as Hamada (1969) and Stiglitz (1974). However, these conclusions are at variance with what one sees in the real world, where capital structure matters and banks would be extremely unwilling to finance a project entirely with debt capital. Thus, financing clearly can matter. The chief reasons why it matters include taxes, differences in information and agency costs.

There is no universal theory of the debt-equity choice and no reason to expect one. There are several useful conditional theories, related to capital structure and financing. For example, the tradeoff theory says that firms seek debt levels that balance the tax advantages of additional debt against the costs of possible financial distress. The tradeoff theory predicts moderate borrowing by tax-paying firms. The

pecking order theory says that the firm will borrow, rather than issuing equity, when internal cash flow is not sufficient to fund capital expenditures. Thus the amount of debt will reflect the firm's cumulative need for external funds. The free cash flow theory says that dangerously high debt levels will increase value, despite the threat of financial distress, when a firm's operating cash flow significantly exceeds its profitable investment opportunities. The free cash flow theory is designed for mature firms that are prone to overinvest. Theories of optimal capital structure differ in their relative emphases on, or interpretations of, these factors. The tradeoff theory emphasizes taxes, the pecking order theory emphasizes differences in information, and the free cash flow theory emphasizes agency costs (Myers 2001). Further, Myers (1984) pointed out that financial economists have not hesitated to give advice on capital structure, even though how firms actually choose their capital structures remains a puzzle as the theories developed did not seem to explain fully actual financing behaviour. This view is supported by Harris and Raviv (1991) who pointed out that numerous attempts to explain capital structure have proved to be inconclusive.

Most research on capital structure has focused on public, nonfinancial companies with access to developed (U.S. or European) capital markets. These companies have the broadest menu of financing choices and can adjust their capital structures at relatively low cost. However in developing countries like Nepal, debt ratios of established companies vary within apparently homogenous industries. There is also variation over time, even when taxation, information differences and agency problems are apparently constant.

Financing decision (i.e. capital mix decision) is one of the most important decisions of a firm. The financing decision involves decisions related to amount of financing, types of financing, financing mix and timing of financing. The financial manager of the firm should take right financing decision to maximize the stockholders' wealth. The maximization of stockholders' wealth is closely related to the maximization of firm value.

Capital structure or financing decisions are the important decisions that a firm has to take. This is because of the fact that capital structure can directly affect cost of capital

and profitability and eventually the capital structure coupled with a number of other factors determines the value of a firm. Capital structure decisions are central both to the theory and to the practice of corporate finance. A capital structure with reasonable proportions of debt and equity capital can maximize the shareholder's wealth to a limit possible and simultaneously can minimize the firm's cost of capital as a whole.

The relationship between capital structure and profitability has been the subject of remarkable milestone over the past decades throughout the irrelevance theory. However no clear cut empirical evidence is found that the capital structure affects the profitability of corporate non-financial firms in Nepal. This study discovered some fact on the relationship between capital structure and profitability in Nepalese reality.

The firms have to pay a fixed charge at every period irrespective to the firm's earnings. The cost of capital is concerned with what a firm has to pay for the capital- that is, the debt, preferred stock, retained earnings, and common stock- it uses to finance new investments. Firm's cost of capital is determined in the capital markets and is closely related to the degree of risk associated with new investments, existing assets, and the firm's capital structure. The greater the risk of a firm as perceived by investors, the greater the return investors require and the greater will be the cost of capital. Without the proper combination of capital structure components in financing of the firm, it is impossible to minimize the cost of capital. Determining the cost of capital is a major problem in Nepalese companies. This study has tested the empirical relationship between capital structures and the cost of capital in the context of underdeveloped economy such as Nepal by using the data of Nepalese listed companies.

The successful selection and use of capital is one of the key elements of the firms' financial strategy. Hence, proper care and attention need to be given while determining capital structure decision. Pandey (2004) reported that the capital structure decision of a firm influences its shareholders return and risk. Consequently, market value of its shares may be affected by the capital structure decision. The objective of a firm should therefore be directed towards the maximization of its value by examining its capital structure or financing policies from the point of view of its impact on the firm value. Maximizing firm value requires a perfect combination of

debt and equity. It implies that by changing the capital structure composition a firm can increase its value in the market. This study has examined the capital structure and its relationship with the value of the firm in the Nepalese setting. It seeks to provide evidence that may uncover the significant policy implication for finance managers, because they can utilize debt to form optimal capital structure to maximize the wealth of shareholders.

This study is mainly aimed at assessing financing policies of listed non-financial companies of Nepal. The specific objectives are: (1) to investigate the factors affecting capital structure decisions in Nepalese firms, (2) to assess the impact of capital structure on the firm's profitability, (3) to analyze the effect of leverage on the cost of capital, (4) to evaluate the effect of leverage on the firm value, (5) to analyze the views of executives on financing policies. This study covers a sample of 18 listed non-financial companies. The chosen sample include 12 major manufacturing companies, 4 hotels sector companies and 2 trading companies listed in the Nepal Stock Exchange Ltd. The sample companies are: Bottlers Nepal Limited, Nepal Lube Oil Limited, Bottles Nepal (Tarai) Limited, Unilever Limited, Gorakhkali Rubber Udyog Ltd., Himalayan Distillery Limited, Bishal Bazaar Co Ltd., Khadya Udyog Ltd., Nepal Bitumen & Barrel Udyog Ltd., Nepal Banaspati Ghieu Udyog Ltd., Salt Trading Corporation, Ltd. Fleur Himalayan Ltd., Shree Ram Sugar Mills Ltd., Shree Raghupati Jute Mills Ltd., Soaltee Hotel Ltd., Yak and Yeti Hotel Ltd., Oriental Hotels Ltd., Taragaun Regency Hotel Ltd.

This study is based on secondary as well as primary data. Secondary data are used in evaluating the determinants of capital structure as well as assessing the effect of capital structure on profitability, cost of capital and firm's value. The separate analysis is made for all samples, manufacturing sample and non manufacturing (trading, service and hotel) companies sample to draw information how capital structure decision is affected by industry classification. The data are collected from the sample companies (Financial Statements), Nepal Stock Exchange, Security Board of Nepal, Nepal Rastra Bank, Internal Revenue Department and Ministry of Finance. The period covered by the study is 1998 to 2012.

In order to assess the views of Nepalese executives, the survey instruments were used and for this purpose, a total of 275 structured questionnaires were prepared and distributed from February 2013 to May 2013 to practitioners of different companies. A total of 181 respondents provided their responses on different aspects of financing policies and practices in Nepal.

The methodology used in the study includes the descriptive, analytical, correlation and causal comparative research designs. Further, it includes the systematic collection and presentation of data to display the clear picture of a particular situation and to point out a complete and accurate description of the situation. The analysis involved descriptive, correlation, and regression models to measure relationship between different variables and to test the priori hypothesis. Both parametric and nonparametric tests were also used to examine financing policies, practices and behaviors.

Major Findings

Based on the analysis of data, the major findings of the study are summarized as follows:

1. Size of the firms, as measured by the natural logarithm of sales, is found one of the major determinants of capital structure. Since, it has negative and statistically significant coefficients for total leverage and short term leverage, whereas positive coefficient is found for long-term leverage. The results indicate that larger Nepalese firms use fewer amounts of short term debt and total debt whereas they use more long-term debt than smaller size. When it is compared with manufacturing and non-manufacturing samples, Size affects negatively to both total leverage and short term leverage in manufacturing samples whereas it affects negatively only to short-term leverage in non-manufacturing sample. As a whole, it indicates that larger firms in Nepal borrow less than smaller firms.

2. Liquidity is found one of the major determinants of capital structure. Since, liquidity negatively affects total leverage and short-term leverage whereas it affects positively for long-term leverage. It indicates that raising short-term debt capital by Nepalese companies is likely to be expensive and more risky; hence companies with

high liquidity tend to avoid raising external loan capital. The result is contradictory in the case of long-term leverage that even more liquid Nepalese firms prefer to raise of more long-term debt capital.

3. Tangibility is also found one of the major determinants of capital structure. Tangibility significantly positively affects the long-term leverage in all sample, and manufacturing sample. This may the case that the more tangible the assets of a firm are; the greater its ability to secure long term debt. The negative association between short-term leverage and tangibility is found for all samples as well as manufacturing and non-manufacturing samples. This result can be explained by the fact that those firms that maintain a large proportion of fixed assets in their total assets tend to use less short-term debt than those which do not.

4. Contradicting the priori hypothesis, the tax is significantly negatively related to leverage (capital structure) in all sample. Similar results have been documented in both manufacturing and non-manufacturing sample. However, tax is found as one of the major determinants of capital structure in Nepalese companies.

5. The negative and statistically significant coefficient of NDTS is found for total leverage and long-term leverage in all sample and non-manufacturing sample companies. As a whole, negative coefficient of NDTS indicates that firm with larger amount of annual depression charges relatively borrow less amount of debt capital. Thus, non-debt tax shield can be considered as one of major determinants of capital structure in Nepalese listed non- financial companies.

6. The coefficient of uniqueness is positively significantly related to total leverage and short-term leverage (as contrary to priory hypothesis) in all samples and manufacturing sample. As a whole the positive coefficient of SANS indicates that firm with relatively higher amount of annual selling and advertisement expenses prefer to use more debt capital. Thus, uniqueness (SANS) can also be considered as the determinants of capital structure in Nepalese firms.

7. Effect of capital structure on profitability has also been investigated. The results indicate that the leverage variables like: short-term debt, long-term debt and total

debt are found to be significantly but negatively related to profitability (ROA). The result supports that profitable Nepalese firm use less amount of debt to finance their operation. This is also evidenced by negative coefficient of long-term leverage with ROCE. In general, capital structure has been found as the major influencing variable for firm's profitability in Nepalese firms.

8. Assets turnover is found positively related to profitability. It implies that Nepalese firms with high assets turnover should have higher profitability.

9. Size is found positively related to profitability it implies that the larger the firm size, there will be the better chances of efficient use of firm's assets, eventually profitability may be enhance.

10. Age is found positively related to profitability and it indicates that more reputed Nepalese firms should have higher profitability.

11. Tangibility is found to be negatively related to profitability. It indicates that Nepalese firms are not efficiently utilizing their tangible assets. This may the case that most of Nepalese firms are not operating at their full capacity.

12. Liquidity is found negatively related profitability in all samples. This result is different to that of manufacturing sample where liquidity was also found with positive and significant coefficient.

13. Effect of capital structure on cost of capital has also been investigated and the result supports that cost of capital is mainly affected by capital structure. Since there is significant positive association between leverage and cost of capital, it implies that as firm's debt level increases its cost of capital is also expected to increase. The capital structure (debt to total assets ratio (TL) significantly influence cost of capital because its coefficient is higher than that of other control variables. When sample is sub-divided into manufacturing and non-manufacturing sample groups, the capital structure does not stood as significant variable affecting cost of capital.

14. Assets turnover (ATO) is found positively and significantly related to cost of capital in all sample and manufacturing sample but it is found insignificant in non-manufacturing sample. In general it implies that Nepalese firms with high assets turnover should have higher cost of capital.

15. The liquidity variable is significantly negatively related to cost of capital implies that more liquid firm should have lower cost of capital. This may the cause that more liquid firms can use the low cost sources capital while raising needed capital.

16. Age has been found significantly positively related to cost of capital. It indicates that even more reputed Nepalese firms should have higher cost of capital. Further the result evidenced that in addition to capital structure, natural log of age (Lnage), is also considered as the influencing variable for cost of capital.

17. Eventually effect of capital structure on firm value has been investigated. The results indicate that market value of a firm is positively significantly influenced by its choice of capital structure. More specifically, there is a significant positive effect of total leverage, long-term & short-term leverage on the market value of the firm.

18. The major concern of this study was to analyze the impact of capital structure on value of the firm in the context of Nepalese non-financial firms. In addition to capital structure, profitability positively affects firm value whereas assets turnover, company size, and liquidity negatively affect firm value.

19. The analysis of the primary information indicates that majority of Nepalese sample firms there have formal financing policies but there is significant different between two groups of companies with respect to their financing policies practiced. The major financing policy setters are Board of Directors and President/ managing director percent. There is no difference between manufacturing and hotel & trading companies about financing policies setters.

20. Financing decisions in Nepalese firms are made using the information provided by own management and staff analysis as well as commercial bankers. Thus, more important influence on the setting of target leverage ratios is found from the firm's

own management group and staffs of analysts but information provided from commercial bankers are also considered.

21. The 'situational' and 'risk avoiding' are the two important methods used to describe the financing policies in Nepalese companies. The survey result indicates that majority of the Nepalese firms do regard the tax issues in designing their capital structure and financing decision. Further manufacturing and non-manufacturing (hotel & trading) companies in Nepal are not different about the tax issues related to financing decisions.

22. Nepalese non-financial companies do not have a policy of maintaining spare debt capacity and there is significant difference between manufacturing and hotel & trading companies with respect to the policy of maintaining spare debt capacity. There is significant difference between manufacturing and hotel & trading companies with respect to the policy of maintaining spare debt capacity. Further, Nepalese companies could not borrow more at the same interest rate but borrowing more at the same interest rate practices differs in accordance with the nature of firms.

23. There is some evidence that Nepalese firms make use the of off-balance sheet financing techniques. There is significant difference between manufacturing and hotel & trading companies with respect to the use of off-balance sheet financing techniques. Nepalese companies do follow industry norms for their financing decision. Among alternatives leverage measures, total liabilities divided by total assets (debt ratio) was considered as most important and long term debt divided by total assets was regarded next important leverage measures in Nepalese firms' financing decision procedures.

24. Nepalese enterprises pay more importance in 'projected cash flow or earnings from the assets to be financed' and 'financial flexibility' in governing financial decisions. Except 'projected cash flow or earnings from the assets to financed', for factors governing firms' financing decisions that there is significant difference between manufacturing and hotel & trading companies.

25. Attitudes varied considerably about the preferences for short-, medium- or long - term funding sources but a common theme was apparent. Nepalese firm prefer short (up to 1 year) followed by long (>5 years) maturity funding sources.

26. As regard to a source of long-term fund, Nepalese financial executives prefer 'long-term debt' as their most favorite followed by 'Internal equity' and 'external common equity' respectively, they do not strictly follow pecking order hypothesis. There is significant difference between manufacturing and non-manufacturing (hotel & trading) companies with respect to the preference (choice) for sources of long-term funds for financing new investments.

27. The survey explored the circumstances which might companies to make equity issue. One major circumstance for an equity issue is 'to fund a major expansion' and it is followed by 'to reduce leverage if market conditions right' and thereafter 'to make an acquisition'. There is significant difference between manufacturing and hotel & trading companies about circumstances making an equity issue.

28. The foremost circumstance to make a debt issue is 'to fund a major expansion' and the next major circumstance is 'to add to liquidity'. There is difference between manufacturing and hotel & trading companies about the circumstances making a debt issue.

29.Nepalese non financial companies' decisions regarding the choice between short-term and long term debt is highly affected by 'we except our rating to improve so we borrow short- term until it does' as well as 'matching the maturity of debt with the life of assets'. Manufacturing and hotel & trading companies are different regarding factors of choice between short-term and long term debt the circumstances making a debt issue.

30. As regard to the factors affecting firm's choice to the appropriate amount of debt, the most important factor is 'volatility of our earnings and cash flow' and the next important factor stood 'financial flexibility, and followed by 'tax advantage of interest deductibility'. Manufacturing and hotel & trading companies are different in respect to the factors affecting firm's choice to the appropriate amount of debt.

31. Nepalese sample companies are not much more interested in issuing convertible debt. The survey further evidenced that among the factors affecting to issue convertible debt, 'less expensive than straight debt' is an important features affecting convertible debt policy and the next important factor is the 'ability to call or force conversion if/when necessary'.

32. As regard to the factors affecting the firm's choice to issue common stock; the most important factor is 'maintaining target debt-to-equity ratio'. The factors on next order of importance are: 'inability to obtain funds using other sources', 'if our stock price has recently risen, the price at which we can issue is high', and 'whether our recent profit has been sufficient to fund our activity' respectively. Manufacturing and hotel & trading companies are different in respect to the ranking on factors affecting the firm's choice to issue common stock.

33. The survey has provided the evidence that in average more than 20 percent of the common stock is owned by the largest three stock owners in Nepalese companies. There is no significant difference between manufacturing and hotel & trading companies about the ownership percentage of largest three stock owners. The majority of responding companies' common stock is owned by less than 500 to 1000 people (i.e. shareholders).

34. Only small number of the Nepalese companies has been found to have issued right share. It indicates that right share issue is less practiced in Nepalese non-financial companies. As regard to the situation firms prefer to issue right share, it is found that majority of Nepalese companies prefer to issues right shares 'to reduce transaction costs/cost of issue' and 'for new project expansion and to decrease debt'. Further manufacturing and hotel & trading companies are different with respect to the opinion for the situation firms prefer to issue right shares.

35. As regard to the 'how much a company should borrow in relation to its equity capital, the survey result indicates that the optimal level of debt/equity ratio is more than 1:1 but less than or equal to 2:1. Majority (in aggregate) of Nepalese financial executives are in favor of choosing 2:1 or less of company borrowing in relation to

equity. The result shows that manufacturing companies and non-manufacturing companies are different regarding the choice of the appropriate level of company borrowing in relation to equity capital.

36. Important owner related factors influencing capital structure are goals, knowledge, and need for control. Manufacturing companies and non-manufacturing (hotel & trading) companies are significantly different as regard to owner related factors influencing capital structure except need for control. Whereas important firm characteristics factors influencing capital structure are liquidity, tax, size and others. Likewise, availability of the funds, conditions in the market, and state of the economy are considered the important other external factors influencing capital structure in Nepal.

37. Nepalese financial executives have asserted that proper level of capital structure improves investors' earnings. Whereas, manufacturing and non-manufacturing (hotel & trading) companies are different on the statement that capital structure improves investors' earnings. They also contended that higher ratio of long-term debt to equity causes firms to reduce their profitability. The results indicates that capital structure seem to improve investors, earnings.

38. The survey has explored the key factors influencing firm's profitability. The result shows that growth, assets turnover, debt, and size are considered as the important factors influencing the firm's profitability. Manufacturing and non-manufacturing (hotel & trading) companies are different with respect to ranking of factors influencing firm's profitability.

39. Nepalese corporate executives believe that proper debt level will result in lower overall cost of capital. Different opinion has been reported with respect to the use of proper debt level will result in lower overall cost of capital from manufacturing and non-manufacturing (hotel & trading) companies' executives.

40. The duration for the estimating of the company's cost of capital is also an important part of the corporate financing policies. Survey result reveals that Nepalese companies have first priority for estimating cost of capital on an every investment

basis and they also estimate it 'infrequently'. There is no significant difference between manufacturing and non-manufacturing (hotel & trading) companies with respect to the frequency in estimating cost of capital.

41. The methods to estimate before tax cost of debt have also been identified through questionnaire survey. 'Current average' is mostly preferred and it follows 'marginal cost' to estimate before tax cost of debt in Nepalese companies. Further there is a significant different between manufacturing and manufacturing (hotel & Trading) companies with respect to the choice of methods to estimate before tax cost of debt.

42. The dividend growth model is found most popular method of estimating the cost of equity capital in Nepalese firms. CAPM has also been found in practice in Nepalese financial market. The Speaman correlation coefficient of 0.90 indicates that manufacturing and non-manufacturing (hotel and trading) companies are very much similar as regard to the ranking.

43. The survey has uncovered the fact about weighting factors. The result indicates that 'current market weights' occupy the top of the choice, followed by 'current book weights' in computing weighted average cost of capital in Nepalese sample companies. Manufacturing and non-manufacturing (hotel & trading) companies are not different on the choice of weighting factors.

44. Nepalese financial executives usually make further adjustment on estimated cost capital to reflect the risk of individual investment opportunities. The chi-square value provides the evidence that there is difference between the manufacturing and hotel companies with respect to the adjustment on estimated cost of capital.

45. Majority of the respondents have underlined the positive answer on the use cost of capital for purposes other than project analysis. So it can be asserted that Nepalese financial executives prefer to use cost of capital for purposes other than project analysis. Further manufacturing and non-manufacturing (hotel & trading) companies are found different for the use of cost of capital for purposes other than project analysis.

46. Survey result has explored the significant relationship between a firm's market value and its choice of capital structure. Manufacturing and non-manufacturing (hotel & trading) companies are not different with respect to the agreement that a firm's market value is directly related to its choice of capital structure.

47. Though there exist a significant relationship between a firm's market value and its choice of capital structure in Nepalese companies, but the use of an excessive amount of debt has been reported to eventually results in the market price of their firms stock being adversely affected. Manufacturing and non-manufacturing (hotel & trading) companies are not different on the statement that excessive amount of debt will eventually result in market price be adversely affected.

48. Survey result indicates that the utilization of debt capital in the capital structure of a firm does make it have higher market value than a firm without debt capital in its capital structure. Manufacturing and non-manufacturing (hotel & trading) companies are not different about the agreement that the utilization of debt capital in the capital structure of a firm does make it have higher market value than a firm without debt capital in its capital structure.

49. Most appropriate proxy (measure) for firm value is earnings per share; it is followed by market value of debt plus equity. The price/earnings ratio and Tobin-Q are in third and fourth choice respectively as appropriate proxy (measure) for firm value. The positive Spearman correlation coefficient ($r_s = 0.77$) indicates that the choice of measure of firm value is very much similar between manufacturing and hotel & trading companies.

50. Survey provides the evidence that debt-equity mix is a major determinant of market value in Nepal. This implies that firms can only maximize their market values by an appropriate capital mix of debt and equity capital. Manufacturing and non-manufacturing (hotel &trading) companies are not different about the favor of statement that debt-equity mix is as determinants for market value in Nepal.

51. Maximizing a firm's market value has been found as the major focus when deciding its choice of capital structure in Nepal. But survey evidenced that

manufacturing and hotel & trading companies are different about the statement that maximizing a firm's market value should be the major focus when deciding its choice of capital structure. In aggregate it can be concluded that maximizing a firm's market value should be the major focus when deciding its choice of capital structure.

7.2 Conclusion

Based on the results of regression models developed in secondary data analysis and primary information analysis, the study has attempted to generate the following conclusions: The firm specific determinants of capital structure using three models are broadly similar. The financing decisions of Nepalese companies can be explained by the determinants suggested by much of the empirical literature. One of the major determinants of capital structure is size. Size coefficient evidenced that larger Nepalese firms use fewer amounts of short term debt and total debt whereas they use more long-term debt. In aggregate it could be concluded that larger firms in Nepal borrow less than smaller firms.

Since, liquidity negatively affects total leverage and short-term leverage whereas it affects positively for long-term leverage. Thus, it can be concluded that companies with high liquidity position tend to avoid raising short-term as well as total leverage, whereas even more liquid Nepalese firms prefer to raise more long-term debt capital. Tangibility significantly positively affects the long-term leverage but negative association is found between short-term leverage and tangibility. Thus, it is concluded that those Nepalese firms that maintain a large proportion of fixed assets in their total assets tend to use less short-term debt whereas they use more long-term debt.

Since tax rate and leverage is negatively related, it can be concluded that increase in tax rate can cause to lower use of debt capital in Nepalese firms. Negative coefficient of NDTS indicates that firm with larger amount of annual depression charges relatively borrow less amount of debt capital. The positive coefficient of SANS (uniqueness) indicates that firm with relatively higher amount of annual selling and advertisement expenses prefer to use more debt capital. The main conclusions of the study are that size, liquidity, tangibility, tax rate, non-debt tax shields and uniqueness are the major determinants of capital structure in Nepalese listed non-financial companies.

The effect of capital structure on firm's profitability has also been empirically tested in Nepalese reality. Leverage variables like short-term debt, long-term debt and total debt are found to be significantly but negatively related to profitability (ROA). The result has revealed that profitable Nepalese firms use less debt to finance their operation. Further the significant negative coefficients of long-term leverage with ROCE implies that higher proportion of long-term debt in the capital structure decreases profitability (ROCE) of Nepalese sample companies. Unlike debt, assets turnover (TURN), size (SIZE) and liquidity (LQUI) have positive and significant coefficients with profitability (ROA) in manufacturing firms. While tangibility (TANG), and assets growth (GROW), firm's age (Age) have negative and significant coefficients with ROA. The results provide the evidence that capital structure (SDA, LDA and DA), efficiency (TURN), reputation (AGE), tangibility (TANG), liquidity (LIQUI) and firm size (SIZE) are considered as the factors that affect firm's profitability. This study therefore concludes that investors who concern for profitability (ROA and ROCE) should be dependent to level of debt used by the firms since the level of debt does affect the firms' profitability (ROA & ROE).

In addition to capital structure; TURN, AGE, TANG, LIQUI and SIZE are also found as influencing variables for firm's profitability. Unlike debt, assets turnover (TURN), size (SIZE) and liquidity (LQUI) have positive and significant coefficients with profitability (ROA), while tangibility (TANG), and assets growth (GROW), firm's age (Age) have negative and significant coefficients with ROA in manufacturing firms. In non-manufacturing (hotel & trading) samples, LDA and DA were found negative and significant with profitability (ROA). It implies that higher debt in capital structure cause to reduce profitability (ROA) in hotel and trading companies in Nepal.

Effect of capital structure on cost of capital has also been investigated in Nepalese perspective. The significant positive association has been found between leverage and cost of capital. Since the coefficient is higher than that of other control variables, it implies that as firm's debt level increases its cost of capital is also expected to increase. With respect to the other control variables, assets turnover is found positively related to cost of capital but the liquidity variable is negatively related to cost of capital. The results imply that firms with high assets turnover also have higher cost of capital whereas more liquid firm should have lower cost of capital. Further

positive coefficient of age indicates that even if reputed Nepalese firms should incur higher cost of capital.

The effect of capital structure on firm value has been examined empirically for a sample of listed non-financial companies in Nepal. The results reveal that market value of a firm is positively influenced by its choice of capital structure (financial leverage). More specifically, there is a significant positive effect of total leverage, long-term & short-term leverage on the market value of a firm. Capital structure has been found to be the major determinant of firm's value.

The study has also discovered from the analysis that, in Nepal, a firm's market value is positively significantly influenced by its choice of capital structure. With respect to the other control variables, profitability is positively related to firm value; whereas assets turnover, size and liquidity are negatively related to firm value. In general, it can be concluded that capital structure with controlling effect of profitability, assets turnover, size and liquidity seem to affect firm value of Nepalese listed firms.

The survey of the practice of corporate financing policies is both reassuring and puzzling. Based on primary evidence the study also concludes that majority of Nepalese sample pursue formal financing policies. Their major financing policy setters are board of directors and president/ managing director. Their financing decisions are made using the information provided by own management and staff analysis as well as commercial bankers. The 'situational' and 'risk avoiding' are the two important methods used to describe the financing policies in Nepalese companies. Nepalese firms do regard the tax issues in designing their capital structure and financing decision. Nepalese firms do not have spare debt capacity and they could not borrow more at the same interest rate. Nepalese firms make use the of off-balance sheet financing techniques. Nepalese firms do use industry norm for financing decision. Financial ratios that mostly used by Nepalese corporations to measure leverage are: (1) total liabilities divided by total assets, (2) long-term debt divided by total assets, (3) long-term debt divided by net worth etc. Among alternatives leverage measures, total liabilities divided by total assets (debt ratio) was considered most important in these firms' financing decision procedures. Nepalese enterprises pay

more importance in ‘projected cash flow or earnings from the assets to be financed’ and ‘financial flexibility’ in governing financial decisions.

As regards to the preference for a particular maturity structure in borrowings, respondents had shown their first ranking on short (up to 1 year) and the second rank on long (>5 years) maturity funding sources. With respect to the long-term source of funds in order of preference for financing new investments, ‘long-term debt’ was the first choice and ‘Internal equity’ and ‘external common equity’ were ranked second and third respectively. Nepalese firms, to some extent, follow the pecking order hypothesis. Further main circumstances making an equity issue are: 'to fund a major expansion', and 'to reduce leverage if market conditions right'. Circumstances that would make a debt issue are: to fund a major expansion and it is followed by to add to liquidity.

Important factors affecting firm's choice between short-term and long-term debts are 'we expect our rating to improve, so we borrow short-term until it does', matching the maturity of debt with the life of assets, 'borrowing short-term reduces the chance that our firm will want to take on risky projects'. The main factors affecting firm’s choice to the appropriate amount of debt are: ‘volatility of our earnings and cash flow’, ‘financial flexibility, and 'tax advantage of interest deductibility’. Likewise important factors affecting the firm’s choice to issue common stock are: ‘maintaining target debt-to-equity ratio’, ‘inability to obtain funds using other sources’, ‘if our stock price has recently risen, the price at which we can issue is high’. Nepalese non-financial companies are narrowly held as regard to the ownership structure.

It has been evident that the participating executives subscribe to the concept of an optimal capital structure. Further, they believe the prudent use of debt can lower the firm's overall cost of capital and that debt use can affect firm value.

Right share issue is less practiced in Nepalese non-financial companies. Main situations to issue right shares are: ‘to reduce transaction costs/cost of issue’ and ‘for new project expansion and to decrease debt’. Nepalese financial executives are in favor of choosing borrowing in relation to equity capital is less than or equal to 2:1. Owners related factors influencing capital Structure are: goals, knowledge and need

for control. Based on opinion survey important firms' characteristics factors influencing capital structure are: liquidity, tax, size and other. Other external factors influencing capital structure are: the availability of the funds, conditions in the market and state of the economy.

Nepalese practitioners are in agreement that capital structure seems to improve investors, earnings. As majority of the respondents showed their agreement (strongly agreed and agreed), it can be concluded that higher ratio of long-term debt to equity causes firms to reduce their profitability. Important factors influencing firm's profitability based on opinion survey are growth, assets turnover, debt, and size.

Nepalese financial executives have asserted that debt in firm's capitalization can lower overall cost of capital. The mostly followed duration for the estimating of the company's cost of capital is every investment basis as well as annually practice. Current average and marginal cost methods are mostly used in Nepalese companies as methods to estimate before tax cost of debt. Dividend growth model is the most popular method of estimating the cost of equity capital. The current market weight is mostly practiced by Nepalese firm for calculating weighted average cost of capital. Nepalese financial executives usually make further adjustment on estimated cost capital to reflect the risk of individual investment opportunities. Nepalese financial executives prefer to use cost of capital for purposes other than project analysis.

There is a significant relationship between a firm's market value and its choice of capital structure. An excessive amount of debt would eventually results in the market price of their firms stock being adversely affected. Utilization of debt capital in the capital structure of a firm does make it have higher market value than a firm without debt capital in its capital structure. 'Earnings per share' is the best measure for firm value. The 'market value of debt plus equity', 'price/earnings ratio' and 'Tobin-Q' are also the usual measures for firm value in Nepalese companies. Firms can only maximize their market values by an appropriate capital mix of debt and equity capital. When deciding a firm's choice of capital structure, maximizing its market value should be its major focus since majority of the respondents (strongly agreed and agreed) affirmed the statement.

The variables considered as influencing in determining capital structure of developed capital market realities are also considered as influencing variables in Nepalese context too. The financial executives believe that the prudent use of leverage can lower the firm's average financing costs. Further the evidence indicated that formulation of an appropriate corporate debt policy appears to be central part of the firm's financial management process in Nepalese firms. Financial executives stood decisive in stating that capital structure is relevant.

Overall, the study finds that firms in the non-financial sector of Nepal have adopted capital structure to some extent on the pecking order hypothesis. Due to underdeveloped debt market and inefficient equity market, sample firms are largely financed by short term debt. Banks are the major source of finance in this country and due to information asymmetry problems, weak regulatory structure and volatility in earnings; loan is protected with strict covenants which can force the firms to borrow less amount of long-term debt.

The finding of this study suggests that maximizing the wealth of shareholders requires a perfect combination of debt and equity. Changing the capital structure composition, a firm can increase its value in the market. Nonetheless, this could be a significant policy implication for finance managers, because they can utilize debt to form optimal capital structure to maximize the wealth of shareholders. Based on the findings of this study, it can be conclusively stated that capital structure decisions have various implications and one of them is its effect on the value of the firm which formed the basis of this study.

7.3 Recommendations

Based on the evidence derived from secondary data analysis and the examination of the primary information, some recommendations are forwarded. The major recommendations are:

1. As size is negatively related to total leverage and short term leverage, it shows that small firms are employing higher level of debt. Thus it is suggested that even larger firms should make judicious use of leverage to maximize market price of common stock.

2. Liquidity is negatively related to total leverage and short-term leverage whereas it is positively related to long-term leverage. This result indicates that more liquid firms borrow fewer amounts of total debt and short-term debt but these firms borrow more long-term debt. It is recommended that even more liquid firms should use more debt to take advantages of cheapest sources of funds.

3. Tangibility positively affects the long-term leverage whereas negative association is found between short-term leverage and tangibility. It indicates that firms having more tangible assets borrow more long-term debt but firms having fewer tangible assets borrow more short-term debt. It is recommended that firms having more tangible assets should also borrow short- term debt as short-term debt is cheapest sources of funds.

4. Tax is negatively related to leverage. It indicates that firms having more tax burden borrow less amount of debt. It seems that Nepalese firms are unable to take advantage of tax benefit from the use of debt. It is recommended that Nepalese firm should use optimal debt capital in their capital structure and take the benefit of debt and reduce the tax liability.

5. The NDTS is negatively related to leverage. It indicates that firm with larger amount of annual depression charges relatively borrow less amount of debt capital. It seems that Nepalese firms are unable to take advantage of tax benefit from the use of debt. It is recommended that Nepalese firms having larger amount of annual depression charges should use more debt capital in their capital structure and take the tax benefit of debt.

6. Uniqueness is positively significantly related to leverage. It indicates that firm with relatively higher amount of annual selling and advertisement expenses prefer to use more debt capital. It is suggested that even firm with relatively lower amount of annual selling and advertisement expenses should borrow reasonable amount of debt as debt is cheapest sources of fund.

7. Since there is a significant positive association between leverage and cost of capital, it implies that as firm's debt level increases its cost of capital is also expected to increase. Thus it is recommended that Nepalese firms should borrow reasonable (optimal) amount of debt to lower cost of capital.

8. Assets turnover is found positively related to cost of capital and it implies that Nepalese firms with high assets turnover should have higher cost of capital. It is suggested that Nepalese firms even with high assets turnover try to raise low cost bearing source of capital (optimal use of debt capital).

9. The liquidity is negatively related to cost of capital implies that more liquid firm should have lower cost of capital. It is recommended that Nepalese firms even with lower liquidity position try to raise low cost bearing source of capital for funding their investment needs.

10. Age is found positively related to cost of capital and it indicates that more reputed Nepalese firms should have higher cost of capital. It seems that Nepalese aged firms are not aware of optimal capital structure. Thus it is recommended that even more reputed firms should maintain optimal capital structure thereby cost of capital can be minimized.

11. Leverage is negatively related to profitability. It indicates that profitable Nepalese firms use less amount of debt in their capital structure. It further implies that excessive use of leverage may lower the profitability. Thus it is recommended that Nepalese firms should judicial use of debt in their capital structure to enhance profitability.

12. Assets turnover is positively related to profitability and it implies that Nepalese firms with high assets turnover should have higher profitability. It is suggested that Nepalese firms even with low assets turnover try to enhance their efficiency to increase profitability.

13. Since size is positively related to profitability, the smaller the firm size, there will be the chances of less efficient use of firm's assets, eventually profitability may be

deteriorated. Thus, smaller size Nepalese companies should increase efficiency and try to enhance size to increase profitability.

14. Age is found positively related to profitability and it indicates that more reputed Nepalese firms should have higher profitability. Since young firms are not able to generate sufficient profit, it is recommended that even young (less-reputed) firms should try to diversify their business and increase efficiency to enhance profitability.

15. Tangibility is negatively related to profitability. It indicates that Nepalese firms are not efficiently utilizing their tangible assets. This may the case that most of Nepalese firms are not operating at their full capacity, thus Nepalese firms should enhance capacity and best utilize their tangible assets to increase profitability.

16. Liquidity is negatively related to profitability. It indicates that excessive liquidity lower the profitability since idle cash earns nothings. Thus it is recommended that Nepalese firms should maintain optimal level of liquidity that helps smooth operations and maximize profitability.

17. Market value of a firm is positively influenced by its choice of capital structure. It indicates that by changing the capital structure composition a firm can increase its value in the market. It is suggested that maximizing the wealth of shareholders requires a perfect combination of debt and equity.

18. Market value of a firm is positively related to profitability. It indicates that profitable Nepalese firms have the higher market value. Thus it is suggested that maximizing the market value of a firm requires an effort to increase profitability by controlling the costs.

19. Since market value of a firm is negatively related to assets turnover, it indicates that firms not only generate high assets turnover but should control cost that may positively contribute for high market value.

20. As size is negatively related to market value of a firm, it indicates that larger size Nepalese firms have lower market value. It is suggested that even larger size Nepalese should enhance market value by controlling cost and increase profitability.

21. The survey results pointed out that 'situational' and 'risk avoiding' are the popular methods for describing financing policies in Nepalese companies. It seems that chosen financing policies are not supportive to generate reasonable profit by the Nepalese companies because without 'risk accepting' profit may not be enhanced. Thus, 'risk accepting' which is less emphasized by companies, should be followed as the appropriate methods for describing financing policies in Nepalese companies.

22. Since tax issues have a major influence on financing decisions in Nepalese firms. As interest expense is tax deductible expense, Nepalese firms are suggested to use optimal level of debt that provides positive tax benefit to their firms.

23. Nepalese firms do not follow a policy of maintaining spare debt capacity. It indicates that they are not aware of the importance of financial planning and optimal capital structure decisions. Thus Nepalese financial executives are recommended to exercise the sound financial planning and set the optimal target debt ratio and maintain a spare debt capacity.

24. Nepalese firms mainly raised short (up to 1 year) and long (>5 years) maturity funding sources but they are not aware of the importance of the 'policy of matching assets and liabilities' which looks appropriate in respect of cost as well as refunding perspective. Thus they are suggested to follow 'policy of matching assets and liabilities' while raising debt capital.

25. Survey indicates that right share issue is less practiced in Nepalese companies. It seems that they are not aware of the importance of right share issue. Thus Nepalese firms are suggested to issue the right shares as source of equity financing.

26. Since respondents have provided affirmative answer with regard to the statement that use of an excessive amount of debt would eventually result in the market price of their firms stock in an adverse way, what becomes clear is that the use of excessive

debt is likely to reduce the share price in the market. Thus, Nepalese firms are suggested to use optimal level of debt that can maximize the market price of companies' common stock.

27. It can be seen from the analysis that by changing the capital structure composition a firm can increase its value in the market. Thus it is suggested that maximizing the wealth of shareholders requires a perfect combination of debt and equity.

28. Financing decision (i.e. capital mix decision) is one of the most important decisions of a firm because the financing decision involves decisions related to amount of financing, types of financing, financing mix and timing of financing. It is suggested that the financial manager of the firm should take right financing decision to maximize the stockholders' wealth, since the maximization of stockholders' wealth is closely related to the maximization of firm value.

29. It is recommended that firms are strongly advised to always compare the marginal benefit of using debt to the marginal costs of debt before concluding on using it in financing their operations. This is because as shown by this study, debt capital impacts positively/negatively on firm's value just like equity capital.

30. Financial leverage (debt) can significantly decreases the burden of taxes on the firm but a careful analysis is very important and mandatory to evaluate the precise level of debt financing to maximize the profitability of the business. Thus it is recommended to Nepalese practitioners for a careful analysis before issuing excessive debt capital.

Scope for future research

1. This study investigates the relationship between financing policies and its impact on firm value of Nepalese firms.

2. This study is based on the data of only one (Nepalese) market of developing economy so it cannot represent all the markets of developing economies. However, markets of developing economies have some shared features and few characteristics are unique like, regulation of the markets etc. Thus, further studies can be conducted

covering the data of other developing countries in the developing economy to obtain better result.

3. Further study can be conducted by adding industry characteristics variables and macro level variable as independent variables. Likewise more profitability proxy variables may be helpful to clarify the results of these types of studies.

4. This study includes only fifteen years data. To find consistent results, long time series data is required. Thus further studies can be conducted using data of long time series for more reliability of results.

5. This study is mainly concentrated on the financing policies of manufacturing and non-manufacturing (i.e. hotel and trading) sector of Nepal. However, it is equally important to focus on other sectors like: service, finance etc. It is suggested that the study on these sectors can also be carried out by highlighting their positions as well as practices and behaviors.

6. Future research can be conducted by comparing the financing policy and firm value of small and large firms; public and private firms actively traded and non-actively traded firms in stock exchange etc.

7.Though this study reveals that capital structure has impact on the market value of a firm but market firm value may not only dependent on the fundamental financial information of the company, there may be some qualitative factors like: decision of the management, level of good governance, investors psychology, market condition, business cycle, etc may affect firm value. Thus further study can be conducted including these factors to find out more realistic result on this issue.

8. This study is mainly concentrated on companies representing manufacturing, hotel and trading industries. There is need to conduct a study on financing policy by all industry.

BIBLIOGRAPHY

Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *The Journal of Risk Finance*, *6*(5), 438-445.

Abor, J. (2008). *Determinants of the Capital Structure of Ghanaian Firms (*AERC Research Paper 176). Nairobi: African Economic Research Consortium.

Abor, J. (2007). Debt policy and performance of SMEs: evidence from Ghanaian and South Africa firms. *Journal of Risk Finance*, *8*, 364-379.

Abor, J., & Biekpe, N. (2006). SME_s Access to Debt Finance: A Comparison of Male-Owned and Female-Owned Business in Ghana. *International Journal of Entrepreneurship and Innovation, 7*(2), 5-112.

Achy, L. (2009). Corporate Capital Structure Choices in Mena: Empirical Evidence from Non-Listed Firms in Morocco. *Middle East Development Journal*, *1*(2), 255-273.

Adams, M., & Buckle, M. (2003). The Determinants of Corporate Financial Performance in the Bermuda Insurance Market. *Applied Financial Economics, 13*, 133-143.

Adelegan, O.J. (2007). Effect of Taxes on Business Financing Decisions and Firm Value in Nigeria. *International Research Journal of Finance and Economics, 12*, 189-213.

Adelegan, O.J. (2007). Political succession, capital market performance and firm valuations in Nigeria. *Ibadan Journal of the Social Sciences*, *5*(1), 25-36.

Adeyemi, S.B., & Oboh C.S. (2011). Perceived Relationship between Corporate Capital Structure and Firm Value in Nigeria. *International Journal of Business and Social Science*, *2*(19), 131-143.

Agarwal, S., & Mohtadi, H. (2004). Financial markets and the financing choice of firms: Evidence from developing countries. *Global Finance Journal*, *15*(1), 57-70.

Aggarwal , R., & Kyaw, N.A. (2006). Leverage, Investment Opportunities and Firm Value: A Global Perspective. *Financial Development*, *1*(2), 1-26.

Aggarwal, R., & Zhao, X. (2007). The Leverage-Value Relationship Puzzle: An Industry Effects Resolution. *Journal of Economics and Business*, *59*(4), 286-297.

Aghion, P., & Bolton, P. *(*1992). An incomplete contract approach to financial contracting. *Review of Economic Studies, 59,* 473-494.

Agrawal, A., & Mandelker, G.N. (1987). Managerial Incentives and Corporate Investment and Financing Decisions. *Journal of Finance, 42*(4), 823-837.

Ahmad, Z., Abdullah, N.M.H., & Roslan, S. (2012). Capital Structure Effect on Firms Performance: Focusing on Consumers and Industrials Sectors on Malaysian Firm. *International Review of Business Research Papers, 8*(5), 137-155.

Akerlof, G.A. (1970). The market for lemons: Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, *84*, 488-500.

Akhtar, S. (2005). The determinants of capital structure for Australian multinational and domestic corporations. *Australian Journal of Management*, *30*(2), 321-341.

Akintoye, I.R. (2008). Sensitivity of Performance to Capital Structure. *European Journal of Social Science, 7*(1), 23-31.

Allen, D.E. (1991).The Determinants of the Capital Structure of Listed Australian Companies: The Financial Manager's Perspective. *Australian Journal of Management*, *16*(2), 103-128.

Allen, F. *(*1985). *Capital structure and imperfect competition in product markets* (Working paper). Pennsylvania: The Wharton School, University of Pennsylvania.

Allen, M.T. (1995). Capital Structure Determinants in Real Estate Limited Partnerships. *The Financial Review, 30*(3), 399-426.

Almeida, H., Campello, M., & Hackbarth, D. (2009). Liquidity mergers. *Journal of Corporate Finance, 15*(4), 389-411.

Alouj, H.A., Nia, N.M., & Amiri, S.M.S. (2012). The Effect of Systematic Risk on Cost of Capital determinants Applying CAPM Model: Evidence fromTehran Stock Exchange (TSE). *Australian Journal of Basic and Applied Sciences, 6*(10), 180-188.

Al-Sakran, S. (2001). Leverage Determinants in the absence of Corporate Tax System: The Case of Non-financial Publicly traded Corporation in Saudi Arabia. *Managerial Finance, 27*, 58-86.

Altinkilic, O., & Hansen, R.S. (2000). Are There Economies of Scale in Underwriting Fees? Evidence of Rising External Financing Costs. *Review of Financial Studies, 13*, 191-218.

Amihud, Y., & Lev, B. (1981). Risk reduction as a managerial motive for conglomerate mergers. *Bell Journal of Economics, 12*, 605-617.

Ananiadis, J., & Varsakelis, N. C. (2008). Capital Structure, Short Run Policy, and Performance of Listed Manufacturing Firms in Greece. *The Journal of Applied Business Research, 24*(3), 45-52.

Ang, J.S, Fatami, A., & Rad, T.A. (1997). Capital Structure and Dividend Policies of Indonesian Firms. *Pacific-Basin Finance Journal, 5*(1), 87-103.

Ang, J.S. (1991). Small Business Uniqueness and the Theory of Financial Management. *Journal of Small Business Finance, 1*(1) 1-13.

Ang, J.S., Chua, J.H., & McConnel, J.J.(1982). The administrative costs of corporate bankruptcy: a note. *Journal of Finance, 37,* 337-348.

Ang, J.S., Cole, R., & Lin, J. (2000). Agency costs and ownership structure. *Journal of Finance, 55,* 81-106.

Annuar, M.N., & Shamsher, M. (1993). Capital Structure. *Capital Market Review, 1*(2), 171-177.

Antoniou, A., Guney, Y., & Paudel, K. (2002). *Determinants of Corporate Capital Structure: Evidence from European Countries* (Working paper). University of Durham, 1-8.

Antwi, S., Mills, E.F.E.A., & Zhao X. (2012). Capital Structure and Firm Value: Empirical Evidence from Ghana. *International Journal of Business and Social Science, 3*(22), 103-111.

Arbiyan, A.A., & Safari, M. (2009). The effects of capital structure and profitability in the listed firms in Tehran Stock Exchange. *Journal of Management Perspective, 33,* 159-175.

Arestis, P., Luintel, A.D., & Luintel, K.B. (2004). *Does financial structure matter?* (Working papers Series No. 399). New York: Levy Economics Institute of Bard College, Annandale-on-Hudson.

Ariff, M. (1998). *Stock pricing in Malaysia: Corporate Financial & Investment Management.* Helsinki: UPM Press.

Armstrong, J.S., & Overton, T.S. (1977). Estimating Non-Response Bias in Mail Surveys. *Journal of Marketing Research, 14,* 396-402.

Artikis, P., & Nifora, G. (2011). Leverage and Returns in Three Countries of Southern European Region. *European Research Studies Journal, 4*, 3-26.

Asquith, P., & Mullins Jr., D.W. (1986). Equity issues and offering dilution. *Journal of Financial Economics, 15*, 61-89.

Azhagaiah, R., & Gavoury, C. (2011). The Impact of Capital Structure on Profitability with Special Reference to it Industry in India. *Managing Global Transitions*, *9*(4), 371-392.

Babbie, E.R. (1973). *Survey Research Methods*. Belmont, CA: Wadsworth Publishing Company Inc.

Babbie, E.R. (1990). *Survey Research Methods.* Belmont Ca: Wadsworth Publishing Company Inc.

Babenko, I. (2003). Optimal capital structure of the firm in the presence of costs of financial distress (Meetings paper No. 5179). University of California at Berkeley, EFA 2004 Maastricht.

Babu, S., & Jain, P.K. (1997). Determinants of Capital Structure Decisions: Some Empirical Evidence from a Developing Country. *Journal of Euro-Asian Management.Thailand.*

Baharudddin , N. S., Khamis, Z., Mahmood W. M. W., & Dollah, H. (2011). Determinants of Capital Structure for Listed Construction Companies in Malaysia. *Journal of Applied Finance & Banking*, *1*(2), 115-132.

Baker, M., & Wurgler, J. (2002). Market timing and capital structure. *Journal of Finance*, *57*, 1-32.

Baker, M., & Wurgler, J. (2000). The equity share in new issues and aggregate stock returns. *Journal of Finance, 55*, 2219-2257.

Baker, S.A. (1973). Risk, Leverage and Profitability. *Review of Economics and Statistics, 55,* 503-507.

Bancel, F., & Mittoo, V.U. (2004). The Determinants of Capital Structure Choice: A Survey of European Firms. *Financial Management, 33*(4), 103-132.

Banz, R.W. (1981). The relationship between return and market value of common stocks. *Journal of Financial Economics, 9(*1), 3-19.

Baral, K. J. (2004). Determinants of Capital Structure: A Case Study of Listed Companies of Nepal. *The Journal of Nepalese Business Studies, 1*(1), 1-13.

Baral, K. J. (1996). *Capital Structure and Cost of the Capital in a Public Sector Enterprises in Nepal* (Unpublished doctoral thesis). Faculty of Management, University of Delhi, Delhi.

Barbosa, N., & Louri, H. (2005). Corporate Performance: Does Ownership Matter? A Comparison of Foreign- and Domestic-Owned Firms in Greece and Portugal. *Review of Industrial Organization, 27*(1), 73-102.

Barclay, M. J., & Smith, C.W. (1995). The maturity structure of corporate debt. *Journal of Finance, 50,* 609-631.

Barclay, M.J., Smith , C.W., & Watts, R.L. (1995). The determinants of corporate leverage and dividend policies. *Journal of Applied Corporate Finance, 7,* 4-19.

Barges, A. (1962). The Effect of Capital Structure on the Cost of Capital. *The Journal of Finance, 17*(3), 548-550.

Barges, A. (1963). *The Effects of Capital Structure on the Cost of Capital*. Englewood Cliffs, N.J: Prentice-Hall, Inc.

Barkham, R.J. (1997). The financial structure and ethos of property companies: an empirical analysis. *Construction Management and Economics, 15,* 441-456.

Barnea, A., Haugen, R.A., & Senbet, L.W. (1985). *Agency Problems and Financial Contracting*. Englewood Cliffs, NJ: Prentice-Hall.

Barnes, M. L., & Lopez, J. A. (2006). Alternative measures of the Federal Reserve Banks' cost of equity capital. *Journal of Banking and Finance, 30,* 1687-1711.

Barry, C.B., Peavy, J.W. III, & Rodriguez, M. (1998). Performance Characteristics of Emerging Capital Markets. *Financial Analysis Journal,* 54(1), 72-80.

Barton, S.L., & Matthews, C.H. (1989). Small Firm Financing: Implications from a strategic management perspective. *Journal of Small Business Management, 27(1), 1-7.*

Barton, S.L., & Gordon P.J. (1987). Corporate Strategy: Useful Perspective for the Study of Capital Structure? *Academy of Management Review, 12*, 67-75.

Barton, S.L., & Gordon P.J. (1988). Corporate Strategy and Capital Structure. *Strategic Management Journal, 9,* 623-632.

Barton, S.L., Hill, N.C., & Sundaram, S. (1989). An empirical test of stakeholder theory predictions of capital structure. *Financial Management, 18*(1), 36-44.

Bastos, D. D., Nakamura, W.T., & Basso, L.F.C. (2009). Determinantes da estrutura de capital das companhias abertas na América Latina: um estudo empírico considerando fatores macroeconômicos e institucionais. *RAM, 10*(6).

Bauer, P. (2004). Determinants of Capital Structure: Empirical Evidence from the Czech Republic. *Czech Journal of Economics and Finance, 54*, 2-21.

Baum, C.F., Schafer, D., & Talavera, O. (2007). *The Effects of Short-Term Liabilities on Profitability: The Case of Germany.* Money Macro and Finance Research Group Conference 2006, 61.

Baxter, D. (1967). Leverage, Risk of ruin and the Cost of capital. *Journal of Finance, 22*(4), 395-403.

Beattie, V., Goosacre, A., & Thomson, S.J. (2006). Corporate Financing Decisions: UK Survey Evidence. *Journal of Business Finance & Accounting*, 33(9&10), 1402-1434.

Beena, P.L. (2011). *Financing pattern of Indian Corporate Sector Under liberalization: with focus on acquiring firms abroad* (No. 440). CDS Working Paper.

Beiner, S., & Dchmid, M.M. (2005). *Agency conflict, corporate governance, and corporate diversification - Evidence from Switzerland.* Working Paper. Retrieved May 19, 2012 from http://papers.ssrn.com/sol3/papers.

Ben-David, I., Graham, J., & Harvey, C. (2007). *Managerial over confidence and corporate policies* (Working paper). Duke University.

Berger, A.N. (2002). *Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry* (Working paper). Washington: Board of Governors of the Federal Reserve System.

Berger, A.N., Herring, R.J., & Szego, G.P. (1995). The role of capital in financial Institutions. *Journal of Banking Finance, 19*, 393-430.

Berger, A.N., & DeYoung, R. (1997). Problem Loans and Cost Efficiency in Commercial Banks. *Journal of Banking and Finance, 21*, 849-870.

Berger, A.N., & di Patti, E.B. (2003). *Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry* (No. 2002-54). FEDS Working Paper.

Berger, A.N., & Patti, E.B. (2002). *Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry.* Feds Paper.

Berger, A.N., & Patti, E.B. (2006). Capital structure and firm performance: a new approach to testing agency theory and an application to the banking industry. *Journal of Banking and Finance*, *30*(4), 1065-1102.

Berger, P.G., & Ofek, E. (1995). Diversification's effect on firm value. *Journal of Financial Economics*, *37*, 39-65.

Berger, P.G., Ofek, E., & Yermack, D.L. (1997). Managerial Entrenchment and Capital Structure Decisions. *Journal of Finance*, *52*, 1411-1438.

Berle, A., & Means, G. (1932). *The modern corporation and private property.* United States: Transaction Publishers.

Berndit, E. (1993). *The Practice of Econometrics: Classic and Contemporary*. New York: Addison-Wesley Publishing Company.

Bertrand, M., & Schoar, A. (2003). Managing with style: The effect of managers on firm policies. *Quarterly Journal of Economics*, *118*, 1169-1208.

Bervan, A.A., & Daubolt, J. (2001). *Testing for Inconsistencies in the Estimation of UK Capital Structure Determinants* (Working paper, 4). Department of Accounting and Finance, University of Glasgow.

Bettis, R.A., & Hall, W.K. (1982). Diversification strategy, accounting determined risk, and accounting determined return. *Academy of Management Journal*, *25*, 254-264.

Bevan, A., & Danbolt, J. (2000). *Capital structure and its determinants in the United Kingdom: a decomposition analysis* (Working paper). University of Glasgow, Mimeo.

Bevan, A., & Danbolt, J. (2000). *Dynamics in the Determinants of Capital Structure in the UK* (Working paper, 1-10). University of Glasgow.

Bevan, A., & Danbolt, J. (2002). Capital structure and its determinants in the UK- a decompositional analysis. *Applied Financial Economics, 12,* 159-170.

Bhabra, G. (2007). Insider ownership and firm value in New Zealand. *Journal of Multinational Financial Management*, *17*(2), 142-154.

Bhandari, L.C. (1988). Debt/Equity Ratio and Expected Common Stock Returns: Empirical Evidence. *Journal of Finance, 43*, 507-528.

Biemer, P.P., & Lyberg, L.E. (2003). *Introduction to Survey Quality*. Hoboken, NJ: Wiley-Interscience.

Binks, M. (1979). Finance for expansion in the small firm. *Lloyds bank Review, 134*, 33-45.

Black, B.S. (2001). Does corporate governance matter: A crude test using Russian data. *University of Pennsylvania Law Review*, *149*, 2131-2150.

Bokpin, G. A., Aboagye A. Q.Q., & Osei, K. A. (2010). Risk exposure and corporate financial policy on the Ghana Stock Exchange. *The Journal of Risk Finance*, *11*(3), 323-332.

Bokpin, G.A., & Abor, J. (2009). Financial Policy and Corporate Performance: Evidence from Emerging Market Economies. *African Finance Journal*, *11*(1), 24-36.

Booth, L., Aivazian, V., Demirguc-Kunt, A., & Maksmivoc, V. (2001). Capital Structure in Developing Countries. *Journal of Finance,* 56, 87-130.

Bos, T., & Fetherston, T.A. (1993). Capital Structure practices on the specific firm. *Research in International Business and Finance*, *10*, 53-66.

Bradley, M., Jarrell, G.A., & Kim, E.H. (1984). On the Existence of an Optimal Capital Structure: Theory and Evidence. *Journal of Finance, 39*, 857-878.

Brander, J. A., & Lewis, T.R. (1986). Oligopoly and financial structure: the limited liability effect. *American Economic Review, 76*, 956-970.

Brealey, R.A., & Myers, S.C. (1996). *Principles of Corporate Finance.* New York: McGraw-Hill.

Brennan, M. J., & Kraus, A. (1987). Efficient financing under asymmetric information. *Journal of Finance, 42,* 1225-1243.

Brick, I.E., & Ravid, A.S. (1985).On the relevance of debt maturity structure. *Journal of Finance, 40*(5), 1423-1437.

Brigham, E.F., & Gordon, M. J. (1968). Leverage, Dividend Policy, and The Cost of Capital. *The Journal of Finance, 23*(1), 85-103.

Brigham, E.F., Gapenski, L.C., & Aberwald, D.A. (1986). *Effects of Capital Structure on Utilities' Cost of Capital and Revenue requirements*. Public Utility research Center, College of Business admonition University of Florida Gainesville, Florida 32611.

Brounen, D., Jong, A., & Koedijk, K. (2004). Corporate Finance in Europe: Confronting Theory with Practice. *Financial Management, 33,* 71-101.

Bruner, R.F., Eades, K.M., Harris, R.S., & Higgins, R.C. (1998). Best Practices in Estimating the Cost of Capital: Survey and Synthesis. *Financial Practice and Education, 8,* 13-28.

Buferna, F., Bangassa, K., & Hodgkinson, L. (2005). Determinants of capital structure evidence from Libya. *University of Liverpool, 8,* 1-32.

Capozza, D.R., & Seguin, P.J. (1999). Focus, transparency and value: the REIT evidence. *Journal of Real Estate Economics, 27*(4), 587-619.

Carelton, W.T., & Siberman. I.H. (1977). Joint Determination of rate of return and capital structure; An econometric analysis. *Journal of Finance, 32,* 811-821.

Carlson, M., Fisher, A., & Giammarino, R. (2004). Corporate investment and asset price dynamics: Implications for the cross-section of returns. *Journal of Finance, 59,* 2577-2603.

Carpentier, C. (2006). The valuation effects of long-term changes in capital structure. *International Journal of Managerial Finance, 2*(1), 4-18.

Carvalho, P.G., Serrasqueiro, Z., & Nunes, P.M. (2013). Profitability Determinants of Fitness SMEs: Empirical Evidence from Portugal Using Panel Data. *The Protection of Consumer Rights in the Field of Economic Services of General Interest, 15*(34), 417-430.

Cassar, G., & Holmes, S. (2003). Capital structure and financing of SMEs: Australian evidence. *Accounting & Finance, 43*(2), 123-147.

Cavana, R.Y, Delahaye, B. L., & Sekaran, U. (2001). *Applied business research: Qualitative and quantative method.* Australia: John Wiley & Sons.

Chaganti. R., & Damanpour, F. (1991). Institutional ownership, capital structure and firm performance. *Strategic Management Journal, 12*(7), 479-491.

Chakraborty, S.K., & Sen, A. (1975). Optimal Capital Structure and Lower Cost of Capital: Towards an Operational Approach in the Indian Context. *Economic and Political Weekly, 10*(48), 114-118.

Chakraborty, I. (2010). Capital structure in an emerging stock market: The case of India. *Research in International Business and Finance, 24*, 295-314.

Chamoli, P.C. (1985). A Panorama of Capital Structure Planning of Indian Cement Industry. *Lok Ydhyog, 19*(9), 23-30.

Champion, D. (1999). Finance: the joy of leverage. *Harvard Business Review, 77*(4), 19-22.

Chandrakumarmangalam, S., & Govindasamy, P. (2010). Leverage - An Analysis and its Impact on Profitability with Reference to Selected Cement Companies in India. *European Journal of Economics Finance and Administrative Sciences, 7,* 27-35.

Chaplinsky, S., & Niehaus, G. (1993). Do inside ownership and leverage share common determinants? *Quarterly Journal of Business and Economics*, *32*(4), 51-65.

Chazi, A., Terra, P.R.S., & Zanella, F. C. (2010). Theory versus practice: Perspective of Middle-Eastern financial managers. *European Business Review, 22*(2), 195-221.

Chen, G., Firth, M., Xin, Y., & Xu, L. (2008). Control Transfers, Privatization, and Corporate Performance: Efficiency Gains in China's Listed Companies. *Journal of Financial and Quantitative Analysis, 43*(1), 161-190.

Chen, J. (2004). Determinants of Capital Structure of Chinese Listed Companies. *Journal of Business Research, 57*(12), 1341-1351.

Chen, J., & Strange, R. (2005). The Determinants of Capital Structure: Evidence from Chinese Listed Companies. *Journal of Economic Change and Restructuring, 38,* 11-35.

Chen, L., Lensink, R., & Sterken, E. (1998). *The Determinants of Capital Structure: Evidence from Dutch Panel Data.* Working paper.

Chen, L.J., & Chen, S.Y. (2011). How the pecking-order theory explain capital structure. *J. Int. Manage. Stud., 6,* 1-9.

Chen, S.S., & Chen I.J. (2011). Inefficient Investment and the Diversification Discount: Evidence from Corporate Asset Purchases. *Journal of Business Finance & Accounting, 38*(7-8), 887-914.

Chen, Y., & Hammes, K. (2003). Capital Structure Theories and Empirical Results - a Panel Data Analysis. Available at SSRN: http:// ssrn.com/abstract=535782 or http://dx.doi.org/10.2139/ssrn.535782.

Cheng, M.C., & Tzeng, Z.C. (2011). How Does Ownership Structure Effect Capital Structure and Firms Performance？ Evidence from Taiwan. *Global Review of Accounting and Finance*, *2*(2), 61-81.

Cheng, M.C., & Tzeng, Z.C. (2011). The effect of leverage on firm value and how the firm financial quality influence on this effect. *World Journal of Management*, *3*(2), 30-53.

Cheng, Y.S., Liu, Y.P., & Chien, C.Y. (2010). Capital structure and firm value in China: A panel threshold regression analysis. *African Journal of Business Management, 4*(12), 2500-2507.

Chikolwa, B. (2009). *Determinants of Capital structure for A- REITS.* In 15th Annual Conference of Pacific Rim Real Estate Society, Sydney.

Child, J. (1972). Organization structure, environment and performance: The role of strategic choice. *Sociology*, *6*, 1-22.

Chisari, O.O., Pardina, M. A. R., & Rossi, M. (2000). *The cost of capital in Regulated Firms: the Argentine Experience* (Series No. 08). CEER Working Paper.

Chittenden, F., Hall, G., & Hutchinson, P. (1996). Small firm growth, access to capital markets choice in UK SMEs: empirical evidence from company panel data. *Small Business Economics*, *12*, 113-130.

Chittenden, F., Hall, H., & Hutchinson, P. (1996). Small firm growth, access to capital markets and financial structure: Review of issues and empirical investigation. *Small Business Economies, 8*, 59-67.

Choi, J.J., Fabozzi, F.J., & Yaari, U. (1989). Optimal Corporate Leverage with Risky Debt: A Demand Approach. *The Journal of Financial Research, 12*(2), 129-142.

Chowdhury, A., & Chowdhury, S.P. (2010). Impact of capital structure on firm's value: Evidence from Bangladesh. *Business and Economic Horizons, 3*, 111-122.

Chung, K.H. (1993). Asset characteristics and corporate debt policy: an empirical investigation. *Journal of Business Finance and Accounting, 20*(1), 83-98.

Claessens, S., Djankov, S., & Xu, L.C. (2000). Corporate Performance in the East Asian Financial Crisis. *The World Bank Research Observe, 15*(1), 23-46.

Clarke, R. (1984). Profit Margins and Market Concentration in the U.K. Manufacturing Industry. *Applied Economics, 16,* 567-571.

Collins, J.M., & Sekely, W.S. (1983). The relationship of headquarters country and industry classification to financial structure. *Financial Management, 12,* 45-51.

Collins, O.S., Filibus, I.E., & Clement, A.A. (2012). Corporate Capital Structure and Corporate Market Value: Empirical Evidence from Nigeria. *International Journal of Economics and Finance, 4*(12), 193-201.

Colombage, S.R.N. (2007). Consistency and controversy in corporate financing practices: Evidence from an emerging market. *Studies in Economics and Finance, 24*(1), 51-71.

Colombo, E. (2001). Determinants of corporate capital structure: evidence from Hungarian firms. *Applied Economics, 33*, 1689-1701.

Connelly, L.M. (2011). Cronbach's alpha. *Medsurg Nursing, 20*(1), 44-45.

Connolly, R.A., & Hirschey, M. (1984). R&D, Market Structure and Performance. *Review of Economics and Statistics, 66,* 678-681.

Conyon, M., & Machin, S. (1991). The Determinants of Profit Margins in U.K. Manufacturing. *Journal of Industrial Economics, 39*, 369-382.

Cooley, P.L., & Heck, J.L. (1981). Significant Contributions to Finance Literature. *Financial Management, 10*, 23-33.

Cooper, D.R., & Schindler, P.S. (2003). *Business Research Methods.* New Delhi: Tata McGraw-Hill Publishing Company Limited.

Cooper, I. (2006). Asset pricing implications of nonconvex adjustment costs and irreversibility of investment. *Journal of Finance, 61*, 139-170.

Cornelli, F., Portes, R., & Schaffer, M. (1996). *The Capital Structure of Firms in Central and Eastern Europe* (CEPR Discussion Paper No.1392). London: Centre for Economic Policy Research.

Cosh, A., & Hughes, A. (1994). Size, Financial Structure and Profitability: UK Companies in the 1980s. In A. Hughes and D.J. Storey (Eds.), *Finance and the Small Firm* (PP. 18-63). London: Routhledge.

Cuong, N.T., & Canh, N.T. (2012). The effect of capital structure on firm value for Vietnam's seafood processing enterprises. *International Research Journal of Finance and Economics, 89*, 221-233.

Dammon, R.M., & Senbet L.W. (1988). The Effect of Taxes and Depreciation on Corporate Investment and Financial Leverage. *Journal of Finance, 43*(2), 357-373.

Daniel, O., Masli, E., Rahman, K., & Selvarajah, S.F. (2006). Determinant of capital structure in new ventures: evidence from Swedish longitudinal data. *Journal of Dev. Entrepreneurship, 23*(5), 204-231.

Davenport, M. (1971). Leverage and Cost of capital: Some Tests using British Data. *Economica*, 137-162.

David, D. (1963). A Portfolio Model of Capital Budgeting under Risk. *The Journal of Finance, 18*, 893-894.

De Angelo, H., & Masulis, R.W. (1980). Leverage and Dividend Irrelevancy Under Corporate and Personal Taxation. *Journal of Finance, 35*(2), 453-464.

DeAngelo, H., & Masulis, R.W. (1980). Optimal capital structure under corporate and personal taxation. *Journal of financial economics, 8*(1), 3-29.

Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The Determinants of Capital Structure: Evidence from the Asia Pacific Region. *Journal of Multinational Financial Management, 14*, 387-405.

Degryse, H.A., Goeij, P.C., & Kappert, P. (2009). *The Impact of Firm and Industry Characteristics on Small Firms' Capital Structure: Evidence from Dutch Panel Data* (Discussion Paper 21). Center for Economic Research, Tilburg University.

Delcoure, N. (2007). The Determinants of Capital Structure in Transitional Economies. *International Review of Economics and Finance, 16*(2), 400-415.

Demirguc-Kunt, A. (1992). *Creditor country regulations and commercial bank lending to developing countries* (*Policy Research Working Paper Series* 917). The World Bank.

Demsetz, H., & Lehn, K. (1985). The Structure of Corporate Ownership: Causes and Consequences. *Journal of Political Economy, 93*, 1155-1177.

Dermirguc-Kunt, A., & Maksimovic, V. (1999). Institutions, financial markets, and firm debt maturity. *Journal of Financial Economics, 54*, 295-336.

Dermirguc-Kunt, A., & Maksimovic, V. (1996). Stock market development and firms' financing choices. *World Bank Economic Review, 10*, 341-369.

Devic, A., & Krstic, B. (2001). Comparatible Analysis of the Capital Structure Determinants in Polish and Hungarian Enterprises-Empirical Study. *Economies and Organization, 1*(9), 85-100.

Dewatripont, M., & Tirole, J. (1994). A theory of debt and equity: Diversity of securities and manager-shareholder congruence. *Quarterly Journal of Economics, 109*, 1027-1054.

Dhaliwal, D., Heitzman, S., & Li, O. Z. (2006). Taxes, Leverage, and the Cost of Equity Capital. *Journal of Accounting Research, 44*(4), 691-723.

Dhaliwal, D., Trezevant, R., & Wang, S. (1992). Taxes investment- Related tax shields and capital structure. *Journal of the American Taxation Association, 14*(1), 1-21.

Dhankar, R.S., & Boora, A.S. (1996). Cost of capital, Optimal Capital Structure, and Value of Firm: An Empirical Study of Indian Companies. *Vikalpa, 21*(3), 29-35.

Diamond, D.W. (1989). Reputation Acquisition in Debt Markets. *Journal of Political Economy, 97*, 828-862.

Diamond, D.W. (1991). Debt maturity structure and liquidity risk. *Quarterly Journal of Economics, 106*(3), 709-737.

Diamond, D.W. (1991a). Debt-Maturity Structure and Liquidity Risk. *Quarterly Journal of Economics, 106*, 1027-1054.

Diamond, D.W. (1991b). Monitoring and reputation: The Choice between Bank Loans and Directly Placed Debt. *Journal of Political Economy, 99*, 689-721.

Diamond, D.W. (1993). Seniority and maturity of debt contracts. *Journal of Financial Economics, 33*(3), 341-368.

Dierkens, N. (1991). Information Asymmetry and Equity Issues. *Journal of Financial and Quantitative Analysis,* Cambridge University Press, *26*(2), 181-199.

Dimitrov, V., & Jain, P.C. (2005). The Value Relevance of Changes in Financial Leverage. *[online] Available at: < http://ssrn.com/abstract= 708281>*

Dimitrov, V., & Jain, P.C. (2003). *The Information Content of Change in Financial Leverage* (Working Paper). Georgetown University.

Dimitrov, V., & Jain, P.C. (2008). The Value Relevance of Changes in Financial Leverage Beyond Growth in Assets and GAAP Earnings. *Journal of Accounting, Auditing and Finance, 23(2),* 191-222.

Dincergok, B., & Yalciner , K.(2011). Capital Structure Decisions of Manufacturing Firms' in Developing Countries. *Middle Eastern Finance and Economics*, (12), 86-100.

Doan, N.P.A., & Nguyen, J.D.K. (2011, June). *Firm Characteristics, Capital Structure and Operational Performance: a Vietnamese Study.* APEA Conference Pusan National University, Busan, Korea.

Doku, J.N., Adjasi, C.K.D., & Kumankuma, E.S. (2011). Financial Market Development and Capital Structure of Listed Firms: Empirical Evidence from Ghana. *Serbian Journal of Management, 6*(2), 155-168.

Donaldson, G. (1961). *Corporate Debt Capacity*. Harvard: Harvard University Press.

Donaldson, G. (1961). *Corporate debt capacity: a study of corporate debt policy and the determinants of corporate debt capacity* (Working Paper). MA: Division of Research, Harvard Business School, Harvard University, Cambridge.

Donaldson, G. (1969). *Strategy for Financial Mobility*. Harvard: Harvard Business School Press.

Donaldson, G. (1984). *Managing Corporate Wealth*. New York: Hitt, M. Praeger.

Donaldson, G., & Lorsch, J.W. (1983). *Decision Making at the Top.* New York: Basic Books.

Easterbrook, F. (1984). Two-Agency Cost Explanations of Dividends. *American Economic Review, 74*, 650-659.

Easterby-Smith, M., Thorpe, R., & Lowe, A. (2002). *Management Research: An Introduction*. London: Sage.

Ebaid, E.I. (2009). The impact of capital-structure choice on firm performance: empirical evidence from Egypt. *The Journal of Risk Finance*, *10*(5), 477-487.

Eldomiaty, T.I. (2007). Determinants of corporate capital structure: evidence from an emerging economy. *International Journal of Commerce and Management*, *17*(1/2), 25-43.

Eriotis, N., Vasiliou, D., & Neokosmidi, Z.V. (2007). How firm characteristics affect capital structure: An empirical study. *Managerial Finance, 33*(5), 321-331.

Esperança, J.P., Ana, P.M.G., & Mohamed, A.G. (2003). Corporate debt policy of small firms: An empirical (re)examination. *Journal of Small Business and Enterprise Development, 10*(1), 62-80.

Fama, E. F., & French, K. R. (2004). The Capital Asset Pricing Model: Theory and Evidence. *Journal of Economic Perspectives, 18*, 25-46.

Fama, E.F. (1985). What is different about banks? *Journal of Monetary Economics, 15*, 29-37.

Fama, E.F., & French, K.R. (1998). Taxes, Financing Decisions, and Firm Value. *Journal of Finance, 53*, 819-843.

Fama, E.F., & French, K.R. (1992). The Cross-Section of Expected Stock Returns. *The Journal of Finance, 47*(2), 427-465.

Fama, E.F., & French, K.R. (1996). The CAPM is Wanted, Dead or Alive. *The Journal of Finance*, *51*(5), 1947-1958.

Fama, E.F., & French, K.R. (1997). Industry cost of equity. *Journal of Financial Economics, 43*, 153-193.

Fama, E.F., & French, K.R. (2002). Testing trade-off and pecking order prediction about dividends and debt. *The Review of Financial Studies, 15*(1), 1-33.

Fama, E.F., & French, K.R. (2002). *Testing Tradeoff and Pecking Order Predictions about Dividends and Debt* (Working paper). University of Chicago and Sloan School of Management (MIT).

Farisi, A.S.A., & Hendrawan, R. (2012). Effect of Capital Structure on Banks Performance: A Profit Efficiency Approach Islamic and Conventional Banks Case in Indonesia. *International Research Journal of Finance and Economics,* (86), 1450-1487.

Faulkender, M., & Petersen, M.A. (2006). Does the Source of Capital Affect Capital Structure? *The Review of Financial Studies Journal, 19*(1), 45-79.

Faulkender, M., Flannery, M.J., Hankins, K.W., & Smith, J.M. (2012). Cash flows and leverage adjustments. *Journal of Financial Economics, 103*, 632-646.

Feld, L.P., Heckemeyer, J.H., & Overesch, M. (2011). *Capital structure choice and company taxation: A meta-study.* ZEW Discussion Papers, 11-75.

Ferri, M.G., & Jones, W.H. (1979). Determinants of Financial Structure: A New Methodological Approach. *Journal of Finance,* 631-644.

Fink, A. (2003). *The survey handbook*. Thousand Oaks, CA: SAGE publications.

Fischer, E. O., Heinkel, R., & Zechner, J. (1989). Dynamic Capital Structure Choice: Theory and Tests. *Journal of Finance, 44*(1), 19-40.

Frangouli, Z. (1999). Product Differentiation and Monopoly Power: An Empirical Relationship. *International Review of Economics and Business, 46*(1), 125-130.

Frank, M.Z., & Goyal, V.K. (2005). Trade off and Pecking order theories of Debt. In E.B. Espen (Ed.), *Handbook of corporate finance, handbooks in finance series* (pp. 2-62). North Holland: Elsevier.

Frank, M.Z., & Goyal, V.K. (2008). Trade-Off and Pecking Order Theories of Debt. *Handbook of Corporate Finance: Empirical Corporate Finance, 2*, 135-202.

Frank, M.Z., & Goyal, V.K. *(2003). Capital Structure Decisions* (Working paper). Stanford Working Paper, http://ssrn.com/abstract=556697.

Frank, M.Z., & Goyal, V.K. (2007b). *Corporate leverage: How much do managers really matter?* (Working paper). University of Minnesota and Hong Kong University of Science and Technology.

Franks, J.R., & Pringle, J.J. (1982). Debt Financing, Corporate Financial Intermediaries and Firm Valuation. *The Journal of Finance, 37*(3), 751-761.

Frielinghaus, A., Mostert, B., & Firer, C. (2005). Capital Structure and the Firm's Life Stage. *South Africa Journal of Business Management*, *36*(4), 9-18.

Friend, I., & Lang, L. (1988). An Empirical Test of the impact of Managerial Self-Interest on Corporate Capital Structure. *Journal of Finance, 43*, 271-281.

Gale, B. (1972). Market Share and the Rate of Return. *Review of Economics and Statistics, 54*, 412-423.

Garg, S.B. (1988). *Optimum Capital Structure: Theory and the Indian Experience (*M.Phil. dissertation). Department of Economics, University of Delhi, Delhi.

Gaud, P., Jani, E., Hoesli, M., & Bender, A. (2003). *The capital structure of Swiss companies: an empirical analysis using dynamic panel data* (Series, 68). *FAME Research Paper.*

Gaud, P., Jani, E., Hoesli, M., & Bender, A. (2005). The capital structure of Swiss firms: an empirical analysis using dynamic panel data. *European Financial Management, 11*(1), 51-69.

Gemmille, G. (2001). *Capital structure and firm value a study of split-capital closed-end funds in the UK*. London: City University Business School.

George, D., & Mallery, P. (2003). *SPSS for windows step by step: A sample Guide & reference.* Boston: Allyn & Bacon.

George, T.J., & Hwang, C.Y. (2010). A resolution of the distress risk and leverage puzzles in the cross section of stock returns. *Journal of Financial Economics, 96*, 56-79.

Gerrish, K., & Guillaume, L. (2006). Whither Survey Research? The challenge of understanding postal surveys within the UK research governance framework. *Journal of Research in Nursing, 11*(6), 485-497.

Ghosh, A. (2008). *Capital Structure and Firm Performance*. United States: Transaction Publishers.

Ghosh, C., Nag, R., & Sirmans, C. (2000). The pricing of seasoned equity offerings: evidence from REITs. *Real Estate Economics, 28*, 363-384.

Ghosh, S. and Ghosh, A. (2008). Do Leverage, Dividend Policy and Profitability Influence Future Value of Firm? Evidence from India. Available at SSRN: http://ssrn.com/abstract=1158251 or doi:10.2139/ssrn.1158251

Gill, A., & Mathur, N. (2011b). Factors that influence financial leverage of Canadian firms. *Journal of Applied Finance and Banking*, *1*(2), 19-37.

Gill, A., & Mathur, N. (2011a). Board size, CEO duality, and the value of Canadian manufacturing firms. *Journal of Applied Finance and Banking*, *1*(3), 1-13.

Gill, A., Biger, N., Pai, C., & Bhutani, S. (2009). The Determinants of Capital Structure in the Service Industry: Evidence from United States. *The Open Business Journal*, *2*, 48-53.

Gill, A., Biger, N., & Mathur, N. (2011). The effects of capital structure on profitability: Evidence from United States. *International Journal of Management*, *28*(4), 3-15.

Gisser, M. (1991). Advertising, Concentration and Profitability in Manufacturing. *Economic Enquiry*, *29*, 148-165.

Gitman, L.J., & Mercurio, V. (1982). Cost of Capital Techniques Used by Major U.S. Firms: Survey and Analysis of Fortune's 1000. *Financial Management*, *11*(4), 21-29.

Gleason, K.C., Mathur, L.K., & Mathur, I. (2000). The Interrelationship between Culture, Capital Structure, and Performance: Evidence from European Retailers. *Journal of Business Research*, *50*(2), 185-191.

Glen, J., & Pinto, B. (1994). *Debt or equity? How firms in developing countries choose* (IFC Discussion paper). Washington, D.C.

Goddard, J., Tavakoli, M., & Wilson, J. (2005). Determinants of profitability in European manufacturing and services: Evidence from a dynamic panel data. *Applied Financial Economics*, *15*, 1269-1282.

Gomes, J., Kogan, L., & Zhang, L. (2003). Equilibrium cross-section of returns. *Journal of Political Economy*, *111*, 693-732.

Gompers, P.A., Ishii, J.L., & Metrick, A. (2003). *Corporate governance and equity prices.* Working Paper. Retrieved May 22, 2012 from http://fic.wharton.upenn.edu/fic/papers.

Gordon, R.H., & Lee, Y. (1999). *Do Taxes Affect Corporate Debt Policy? Evidence from US Corporate Tax Return Data* (NBER Working Papers 7433). National Bureau of Economic Research, Inc.

Gordon, M. J. (1967). Some estimates of the cost of capital to the electric utility industry, 1954-57: Comment. *American Economic Review, 5,* 1267-1278.

Gordon, M.J. (1962). *The investment, financing, and valuation of the corporation*. Homewood: Irwin.

Gorton, G., & Rosen, R. (1995). Corporate Control, Portfolio Choice, and the Decline of Banking. *Journal of Finance, 50,* 1377-1420.

Graham, J.R. (1999). Do Personal Taxes Affect Corporate Financing Decisions? *Journal of Public Economies, 73,* 147-185.

Graham, J.R. (2000). How big are the tax benefits of debt? *Journal of Finance, 55,* 1901-1941.

Graham, J.R., & Harvey, C.R. (2001). The Theory and Practice of Corporate Finance: Evidence From The Field. *Journal of Financial Economics*, *60*(2), 187-243.

Graud, P., Jani, E., Hoesli, M., & Bender, A. (2003). *The Capital Structure of Swiss Companies: an empirical analysis using dynamic panel data* (Finance Research Seminar Paper). University of Geneva.

Greiner, L. (1972). Evolutions and Revolutions as Organizations Grow. *Harvard Business Review, 50,* 37-46.

Grinblatt, M., & Titman, S. (1998). *Financial Markets and Corporate Strategy*. Boston: McGraw-Hill.

Groves, R.M., & Peytcheva, E. (2008). The Impact of Non-response Rates on Non-response Bias. *Public Opinion Quarterly*, *72*, 1-23.

Gschwandtner, A. (2005). Profit Persistence in the ´Very` Long Run: Evidence From Survivors and Exiters. *Applied Economics, 37,* 793-806.

Gujarati, D.N. (2004). *Basic Econometrics.* New Delhi: Tata McGraw-Hill Publishing Company Limited.

Gujrati, D.N. (2003). *Basic Econometrics*. New Delhi: Tata McGraw-Hill Publishing Company Limited.

Gul, F.A., & Tsui, J.S.L. (1998). A test of the free cash flow and debt monitoring hypotheses: Evidence from audit pricing. *Journal of Accounting and Economics*, *24*, 219-237.

Gupta, M.C. (1969). The Effect of Size, Growth and Industry on the Financial Structure of Manufacturing Companies. *Journal of finance*, *24*(3), 517-529.

Gurcharan, S.A. (2010). A Review of Optimal Capital Structure Determinant of Selected ASEAN Countries. *International Research Journal of Finance and Economics*, *47*, 30-41.

Haas, R., & Peeters, M. (2004). *The Dynamic Adjustment Towards Target Capital Structures of Firms in Transition Economies* (*Working Paper*, No.87). European Bank for Reconstruction and Development.

Habib, M.M., & Victor, B. (1991). Strategy, structure and performance of US manufacturing and service MNCs: a comparative analysis. *Strategic Management Journal*, *12*, 589-606.

Hadlock, C., & James, C. (2002). Do banks provide financial slack? *Journal of Finance*, *57*, 1383-1420.

Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate Data Analysis.* New Jersey: Pearson Education Inc.

Hall, G.C., Hutchinson, P.J., & Michaelas, N. (2004). Determinants of the capital structures of European SMEs. *Journal of Business Finance and Accounting*, *31*(5/6), 711-728.

Hall, M., & Weiss, L.W. (1967). Firm Size and Profitability. *Review of Economics and Statistics, 49,* 319-331.

Hamada, R.S. (1969). Portfolio analysis, market equilibrium and corporate finance. *Journal of Finance*, *24*, 13-31.

Hamada, R.S. (1972). The Effect of the Firm's Capital Structure on the Systematic Risk of Common Stocks. *Journal of Finance*, 435-452.

Hamson, D.F. (1992). *An empirical examination of corporate capital structure in Australia and the USA* (Unpublished doctoral thesis). Department of Commerce, University of Queensland, Australia.

Harris, M., & Raviv, A. (1991). The Theory of Capital Structure. *Journal of Finance, 49,* 297-355.

Harris, M., & Raviv, A. (1988). Corporate control contests and capital structure. *Journal of Financial Economics, 20,* 55-86.

Harris, M., & Raviv, A. (1990). Capital Structure and the Informational Role of Journal of Finance. *American Finance Association*, *45*(2), 321-349.

Harris, R.S., Marston, F.C., Mishra, D.R., & O'Brien, T.J. (2003). Ex Ante Cost of Equity Estimates of S&P 500 Firms: The Choice Between Global and Domestic CAPM. *Financial Management*, 51-66.

Hart, O. (1995). Corporate governance: some theory and implications. *Economic Journal, 105,* 678-689.

Hart, O., & Moore, J. (1995). Debt and seniority: An analysis of the role of hard claims in constraining management. *American Economic Review, 85*(3), 567-585.

Harvey, C.R., Lins, K.V., & Roper, A.H. (2001). *The Effect of Capital Structure When Expected Agency Costs are Extreme* (No. 8452). NBER Working Paper.

Harvey, C.R., Lins, K.V., & Roper, A.H. (2001). The effect of capital structure when expected agency costs are extreme. *Journal of Financial Economics,* 74(1), 3-30.

Hatfield, B.G., Cheng, T.W., & Davidson, N.W. (1994). The Determination of Optimal Capital Structure: The Effect of Firm and Industry Debt Ratio on Market Value. *Journal of Financial and Strategic Decision, 7*(3), 1-14.

Heaton, J.B. (2002). Managerial optimism and corporate finance. *Financial Management, 31,* 33-45.

Heinkel, R. (1982). A Theory of Capital Structure Relevance under Imperfect Information. *Journal of Finance, 37,* l141-1150.

Heshmati, A. (2001). The dynamics of capital structure: Evidence from Swedish micro and small firms. *Research in Banking and Finance, 2,* 199-241.

Hijazi. S., & Tariq, Y. B. (2006). Determinants of Capital of Structure: A case for Pakistani cement Industry. *The Lahore Journal of Economics, 11*(1), 63-80.

Hirshleifer, D., & Thakor, A. (1992).Managerial conservatism, project choice and debt. *The Review of Financial Studies, 5,* 437-470.

Hirshleifer, J. (1958). On the Theory of Optimal Investment Decision. *The Journal of Political Economy, 66*(4), 329-352.

Homaifar, G., Zietz, J., & Benkato, O. (1994). An Empirical Model of Capital structure: some new evidence. *Journal of Business Finance and Accounting, 21*, 1-14.

Hovakimian, A., Opler, T., & Titman, S. (2001). The Debt-Equity Choice. *Journal of Financial and Quantitative Analysis, 36*(1), 1-24.

Huang, S., & Song, F.M. (2006). The Determinants of Capital Structure: Evidence from China. *China Economic Review, 17*, 14-35.

Huang, S., & Song, F. (2002). The Determinants of Capital Structure: Evidence from China (*Working paper).* Hong Kong: University of Hong Kong Press.

Huat, T.Y. (2008). *Managed Float Regime and Capital Structure Determinants: Evidence from Malaysia.* Faculty of Accountancy, University Malaysia.

Hull, R.M. (1999). Leverage ratios, industry norms, and stock price reaction: An empirical investigation of stock-for-debt transactions. *Financial Management, 28*, 32-45.

Hurdle, G.L. (1974). Leverage Risk, Market Structure and Profitability. *Review of Economics and Statistics, 56*, 478-485.

Hussain, Q., & Nivorozhkin, E. (1997). *The Capital Structure of Listed Companies in Poland.* IMF Working paper, WP/97/175.

Ibrahim, H., & Masron, T.A. (2011). *Capital Structure and the Firm Determinants: Evidence from Small and Medium Enterprises (SMEs) in Malaysia.* International Conference on Economics, Trade and Development, Singapore: IACSIT Press.

Isa, M. (2008). Corporate finance practices in Malaysia: A survey analysis. *Capital Markets Review, 16*(2), 53-73.

Isachenkova, N., & Mickiewicz, T. (2004). *Ownership Characteristics and Access to Finance: Evidence from a Survey of Large Privatized Companies in Hungari and Poland* (Working paper No.666). *William Davidson Institute.*

Jang, S.C., & Tang, C.H. (2009). Simultaneous profitability impacts of internationalization and financial leverage: The case of hotel companies. *Journal of Hospitality and Tourism Research*, *33*(3), 347-368.

Jensen, F.E., & Langemeier, N. (1996). Optimal leverage with risk aversion: empirical Evidence. *Agricultural Finance Review*, *56*, 85-97.

Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency costs and Ownership Structure. *Journal of Financial Economics, 3*, 305-360.

Jensen, M., & Meckling, W. (1976). Theory of the firm: managerial behaviour, agency cost and ownership structure. *Journal of Financial Economics, 43*, 271-281.

Jensen, M.C. (1986). Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review, 76(2)*, 323-329.

Jensen, M.C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review, 76*(2), 323-329.

Jensen, M.C., & Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360.

Jenter, D. (2004). Market timing and managerial portfolio decisions. *Journal of Finance, 60* (4), 1903-1949.

Jermias, J. (2008). The relative influence of competitive intensity and business strategy on the relationship between financial leverage and performance. *British Accounting Review, 40,* 71-86.

Jindrichovska, I., & Korner, P. (2008). *Determinants of corporate financing decisions: a survey evidence from Czech firms* (IES Working Paper). Prague, Czech Republic: Charles University.

Johnson, A. S. (1977). An empirical analysis of the determinants of corporate debt ownership structure. *Journal of Financial and Quantitative Analysis, 32,* 47-69.

Jong, A., Kabir, R., & Nguyen, T.T. (2008). Capital structure around the world: The roles of firm- and country-specific determinants. *Journal of Banking & Finance, 32*(9), 1954-1969.

Jordan, J., Lowe, J., & Taylor, P. (1998). Strategy and Financial Policy in UK Small firms. *Journal of Business Finance and Accounting, 25*(1), 1-27.

Joshua, D.C. (2008). *The Economics of Structured Finance* (Working Paper, No. 9-60). Boston, MA: *Harvard Business School.*

Kajola, S.O. (2008). Corporate governance and firm performance: The case of Nigerian listed firms. *European Journal of Economics, Finance and Administrative Sciences, 14,* 16-27.

Kale, J.R., Thomas, H.N., & Ramirez, G.G. (1991). The effect of business risk on corporate capital structure: Theory and evidence. *American Finance Association,* 87-102.

Karadeniz, E., Kandir, S.Y., Iskenderoglu, O., & Onal, Y. B. (2011). Firm Size and Capital Structure Decisions: Evidence From Turkish Lodging Companies. *International Journal of Economics and Financial Issues, 1*(1), 1-11.

Karadeniz, E., Kandir, S.Y., Balcilar, M., & Onal, Y.B. (2009). Determinants of capital structure: Evidence from Turkish lodging companies. *International Journal of Contemporary Hospitality Management*, *21*(5), 594-609.

Keister, L. (2000). *Capital Structure in Transition: Financial Strategy in China's Emerging Economy* (Working Paper). Columbus, Ohio: The Ohio State University.

Kester, C.W. (1986). Capital and ownership structure: a comparison of United States and Japanese manufacturing corporations. *Financial Management*, 5-16.

Khadka, H.B. (2006). Leverage and Cost of Capital: Some Tests Using Nepalese Data. *The Journal of Nepalese Business Studies*, *3*(1), 85-91.

Khalid, S. (2010). *Analyzing the Impact of Leverage and Adjustment Costs on Various Measures of Corporate Performance: Insights from Listed Firms of Pakistan* (No. 24611). MPRA Paper

Khrawish, H.A., & Khrawesh, A.H.A. (2007-08). The Determinants of the Capital Structure: Evidence from Jordanian Industrial Companies. *Economics and Administration Journal*, *24*(1), 173-196.

Kim, C. (1998). The Effects of Asset Liquidity: Evidence from the Contract Drilling Industry. *Journal of Financial Intermediation, 7*, 151-176.

Kim, E.H. (1998). A Mean-Variance Theory of Optimal Capital Structure and Corporate Debt Capacity. *Journal of Finance*, *33*, 45-64.

Kim, I. J., Krishna, R., & Suresh, S. (1998). Does default risk in coupons affect the valuation of corporate bonds? A contingent claims model. *Financial Management, 22*, 117-131.

Kim, W.S., & Sorensen, E.H. (1986). Evidence on the impact of agency costs of debt in corporate debt policy. *Journal of Financial and Quantitative Analysis, 21*(2), 131-144.

King, M.R. (2009). The cost of equity for global banks: a CAPM perspective from 1990 to 2009. *BIS Quarterly Review*, 59-73.

King, M.R., & Santor, E. (2008). Family values: Ownership structure, performance and capital structure of Canadian Firms. *Journal of Banking & Finance, 32*, 2423-2432.

Kinsman, M., & Newman, J. (1998). *Debt tied to lower firm performance: Finding calls for review of rise in debt use*. Malibu, CA: Pepperdine University.

Klapper, L., & Love, I. (2004). Corporate governance, investor protection, and performance in emerging markets. *Working Paper*. Retrieved May 19, 2012 from http://papers.ssrn.com/sol3/papers.

Klein, L.S., O'Brien, T.J., & Peters, S.R. (2002). Debt vs. Equity and Asymmetric Information: A Review. *Financial Review, 37*, 317-350.

Kogan, L. (2004). Asset prices and real investment. *Journal of Financial Economics, 73*, 411-431.

Korajczyk, R., & Levy, A. (2003). Capital structure choice: macroeconomic conditions and financial constraints. *Journal of Financial Economics, 68*, 75-109.

Korteweg, A. (2004). Financial leverage and expected stock returns: evidence from pure exchange offers. *Working paper*, Available at SSRN: http://dx.doi.org/10.2139/ssrn.597922.

Kose, E. (2011). Dissecting the leverage effect on stock returns. *Working paper*. Availableat:http://www.business.uconn.edu/finance/seminars/papers/Dissecting.

Kostyuk , A. (2011). Corporate governance in banking sector in transition economy: the role of ownership structures. *Serbian Journal of Management*, *6*(1), 43-54.

Kothari, C.R. (2004). *Research Methodology: Methods & Techniques.* New Delhi: New Age International (P) Limited.

Kraus, A., & Litzenberger, R. (1973). A state preference model of optimal financial leverage. *The Journal of Finance*, *28*, 911-921.

Kraus, A., & Litzenberger, R. (1982). A State-Preference Model of Optimal Financial Leverage. *Journal of Finance, 27*, 199-222.

Kremp, E., Stoss, E., & Gerdesmeier, D. (1999). Estimation of a Debt Function: Evidence from French and German firm Panel Data. In: Sauve, A and Scheuer, M. (eds.), Corporate finance in Germany and France, A joint research of the Deutsche Bundesbank and the Banque de France, 139-194.

Kreuter, F., Olson, K., Wagner, J., Yan, T., Ezzati-Rice, T.M., Casa-Cordero, C.,… Raghunathan, T. (2010). Using proxy measures and other correlates of survey outcomes to adjust for non-response: examples from multiple surveys. *Journal of the Royal Statistical Society: Series A*, *173*(2), 389-407.

Krishnan, V. S., & Moyer, R. C. (1997). Performance, Capital Structure and Home Country: An Analysis of Asian Corporations. *Global Finance Journal, 8*(1), 129-143.

Kyerboach-Coleman, A. (2007). The impact of capital structure on the performance of microfinance institutions. *J. Risk Fin.*, *8*(1), 56-71.

Kyereboah-Coleman, A. (2007). Corporate governance and firm performance in Africa: A dynamic panel data analysis. *International Conference on Corporate Governance in Emerging Markets, Sabanci University, Istanbul, Turkey*. Retrieved May 11, 2012 from http://www.ifc.org/ifcext/cgf.nsf.

Lambert, D.M., & Harrington, T.C. (1990). Measuring Non-response Bias in Customer Service Mail Surveys', *Journal of Business Logistics, 11*(2), 5-25.

Lang, L., Poulsen, A., & Stulz, R. (1995). Assets sales, firm performance, and the agency costs of managerial discretion. *Journal of Financial Economics, 37,* 3-37.

Lasfer, M. (1999). *Debt Structure, Agency Costs and Firm's Size: An Empirical Investigation* (Working Paper). City University Business School.

Lawrence, D., Diewert, W.E., & Fox, K.J. (2004). The Contributions of Productivity, Price Changes and Firm Size to Profitability. *The Journal of Economic Literature,* Classification: C43, D24.

Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of Financial Management and Analysis, 19*(1), 26-125.

Leary, M.T., & Roberts, M.R. (2005). Do Firms Rebalance Their Capital Structures? *Journal of Finance, 60*(6), 575-619.

Leland, H., & Pyle, H. (1977). Informational asymmetries, financial structure, and financial intermediation. *Journal of Finance, 32*(2), 371-387.

Leland, H.E., & Toft, K. (1991). Optimal Capital Structure, Endogenous Bankruptcy, and the term Structure of credit spreads. *Journal of Finance, 51,* 987-1019.

Lev, B. (1974). On the association between operating leverage and risk. *Journal of Financial and Quantitative Analysis, 9*(4), 627-641.

Lima, M. (2009). *An Insight into the Capital Structure Determinants of the Pharmaceutical Companies in Bangladesh.* GBMF Conference. [Online] available at: http://www.gbmf.info/2009/

Lintner, J. (1956). Distribution of Incomes of Corporations among Dividends, Retained Earnings, and Taxes. *American Economic Review, 46*, 97-113.

Lipton, M., & Lorsch, J.W. (1992). A modest proposal for improved corporate governance. *Business Lawyer, 48*(1), 59-78.

Long, M., & Maltiz, I. (1985). The Investment Financing Nexus: Some Empirical Evidence. *Midland Finance Journal,* 53-59.

Loof, H. (2003). Dynamic optimal capital structure and technical change. *Structural Change and Economic Dynamics, 15*(4), 449-468

Maçãs-Nunes, P., Viveiros, A., & Serrasqueiro, Z. (2012). Are the determinants of young SME profitability different? Empirical evidence using dynamic estimators. *Journal of Business Economics and Management, 13*(3), 443-470.

Maccario, A., Sironi, A., & Zazzara, C. (2002). *Is Banks' Cost of Equity Capital Different Across Countries? Evidence from the G10 Countries Major Banks* (Working paper, 02/77). SDA Bocconi Research Division DOI: 10.2139/ssrn.335721.

MacKay, P., & Phillips, G.M. (2005). How does industry affect firm financial structure? *Review of Financial Studies, 18*(4), 1433-1466.

Mackay, P., & Phillips, G.W. (2003). How does capital industry affect firm financial structure? *Review of Financial Studies, 18*(4), 1433-1466.

MacKie-Mason, J.K. (1990). Do taxes affect corporate financing decisions? *The Journal of Finance, 45*(5), 1471-1493.

Majumdar, S. K., & Chhibber, P. (1999). Capital structure and performance: Evidence from a transition economy on an aspect of corporate governance. *Public Choice*, *98*(3), 287-305.

Majumdar, S.K. (1997). Debt, Where Is Thy Sting? Leverage and Corporate Performance. *Economic and Political Weekly*, 32(8), 21-24.

Mak, Y.T., & Kusnadi, Y. (2005). Size really matters: Further evidence on the negative relationship between board size and firm value. *Pcific-Basin Finance Journal*, *13*(3), 301-318.

Maksimovic, V., & Phillips, G.M. (1998). Asset efficiency and reallocation decisions of bankrupt firms. *Journal of Finance, 53,* 1619-1643.

Mandelker, G.N., & Rhee, S.G. (1984). The Impact of the Degrees of Operating and Financial Leverage on Systematic Risk of Common Stock. *Journal of Financial and Quantitative Analysis*, *19,* 45-57.

Margaritis, D., & Psillaki, M. (2006). Capital structure and firm efficiency. *Journal of Business Finance and Accounting*, *34,* 1447-1469.

Margaritis, D., & Psillaki, M. (2007). Capital Structure and Firm Efficiency. *Journal of Business Finance & Accounting, 34,* 1447-1469.

Markman, G.D., & Gartner, W.B. (2002). Is extraordinary growth profitable? A study of Inc 500 high-growth companies. *Entrepreneurship Theory and Practice, 27,* 65-76.

Martin, B. (1979). Finance for expansion in the small firm. *Lloyds Bank Review, 134,* 33-45.

Martin, J.D., Cox, S.H., & MacMinn, R.D. (1988). *The Theory of Finance: Evidence and Applications.* Chicago: The Dryden Press.

Masulis, R. (1983). The impact of capital structure change on firm value: Some estimates. *The Journal of Finance, 38*(1), 107-126.

Mathur, A., Zhang, Y., & Neelankavil, J. (2001). Critical Management Motivational Factors: A Cross Cultural Analysis of Four Culturally Divergent Countries. *International Journal of Cross Cultural Management, 3*, 251-267.

Matkar, A. (2012). Cronbach's alpha reliability coefficient for standard of customer service in Maharashtra state cooperative bank. *IUP Journal of Bank Management, 11*(3), 89-95.

Maxwell, O.O., & Kehinde, E.F. (2012). Capital Structure and Firm Value: Empirical Evidence from Nigeria. *International Journal of Business and Social Science, 3*(19), 252-261.

Mayer, C. (1990). Financial Systems, Corporate Finance and Economic Development. In R.G. Hubbard (ed), *Asymmetric Information, Corporate Finance and Investment*. Chicago: University of Chicago Press.

Mazhar, A., & Nasr, M. (2007). Determinants of capital structure decisions case of Pakistani government owned and private firms. *International Review of Business Research Papers*, *6*, 40-46.

Mazhar, A., & Nasr, M. (2010). Determinants of Capital Structure Decisions: Case of Pakistani Government Owned and Private Firms. *International Review of Business Research Papers, 6*, 40-46.

Mazur, K. (2007). The Determinants of Capital Structure Choice: Evidence from Polish Companies. *International Advances in Economic Research, 13*(4), 495-514.

McConnell, J.J., & Servaes, H. (1995). Equity ownership and the two faces of debt. *Journal of Financial Economics, 39*, 131-157.

McConnell, J.J., & Servaes, H. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics, 27*, 595-612.

McGahan, A.M., & Porter, M.E. (1997). How much does industry matter really? *Strategic Management Journal*, (18), 15-30.

Mehran, H. (1992). Executive Incentive Plans, Corporate Control, and Capital Structure. *Journal of Financial and Quantitative Analysis, 27*(4), 539-560.

Mehran, H. (1995). Executive compensation structure, ownership, and firm performance. *Journal of Financial Economics, 38*, 163-184.

Mesquita, J.M.C., & Lara, J.E. (2003, July). *Capital structure and profitability: the Brazilian case.* Academy of Business and Administration Sciences Conference, Vancouver, 11-13.

Messick, S. (1995). Validity of psychological assessment: validation of inferences from person' responses and performances as scientific inquiry into score meaning. *American Psychologist, 50*(9), 741-749.

Michaelas, N., Chittenden, F., & Poutziouris, F. (1999). Financial policy and capital structure choice in UK SMEs: Empirical evidence from company panel data. *Small Business Economics, 12*, 113-130.

Mikkelson, W., & Partch, M. (1986). Valuation effects of security offerings and the issuance process. *Journal of Financial Economics, 15*, 31-60.

Miller, M.H., & Modigliani F. (1961). Dividend Policy, Growth and the Valuation of Shares. *Journal of Business, 34*(3), 411-433.

Miller, M.H. (1977). Debt and taxes. *Journal of Finance, 32*, 261-276.

Miller, M.H., & Modigliani, F. (1966). Some estimates of the cost of capital to the electric utility industry, 1954-57. *American Economic Review, 56*(3), 333-391.

Min-Tsung, C. (2009). The effects of profitability and market performance on corporate financing behavior: a quantile regression approach. *Journal of Information and Optimization Sciences, 30*(4), 669-691.

Mira, F.S. (2001). *On Capital Structure in the Small and Medium Enterprises: The Spanish Case* (Working paper). Spain: Faculty of Social Sciences, University of Cardenal Herrera.

Mira, F.S. (2005). How SME uniqueness affects capital structure: Evidence from a 1994-1998 Spanish data panel. *Small Business Economics, 25*, 447-457.

Modigliani, F. (1980). Introduction in a Abel (ed). *The Collected papers of Franco Modigliani, 3*, 11- 19.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review, 48*(3), 261-297.

Modigliani, F., & Miller, M.H. (1963). Corporate Income Taxes and the Cost of Capital; A Correction. *The American Economic Review, 53*(3), 433-443.

Mollik, A.T. (2005). *Capital structure choice and the firm value in Australia: A panel data analysis under the imputation tax system* (Working paper). Thirteenth Annual Conference on Pacific Basin Finance, Economics and Accounting, June 10-11, New Brunswick, New Jersey.

Mollik, A.T. (2008). Capital structure choice and the firm value in Australia: a panel data analysis under the imputation tax system. *Advances in Quantitative Analysis of Finance & Accounting, 6*, 205-237.

Moore, W. (1986). Asset composition, bankruptcy costs and the firm's choice of capital structure. *Quart. Rev. Econ. Bus., 26*, 51-61.

Moradi, M., Salehi, M., & Erfanian, Z. (2010). A Study of the Effect of Financial Leverage on Earnings Response Coefficient throughout Income Approach:

Iranian Evidence. *International Review of Accounting, Banking and Finance, 2*(2), 104-116.

Morin, R. (1994). *Regulatory Finance: Utilities' cost of capital.* Arlington, Virginia: Public Utilities Reports, Inc.

Muradoglu, G., & Sivaprasad, S. (2009). *An Empirical Analysis of Capital Structure and Abnormal Returns.* http://ssrn.com/abstract=948393.

Muradoglu, G., & Sivaprasad, S. (2010). Capital Structure and Returns. In H.K., Baker, & G., Martin (Eds.), *Capital Structure and Corporate Financing Decisions: Valuation Strategy and Risk Analysis.* New York: Wiley.

Murphy, K.J. (1985). Corporate performance and managerial remuneration: an empirical analysis. *Journal of Accounting and Economics, 7*, 11-42.

Myers, S.C (1984). The Capital Structure Puzzle. *Journal of Finance, 39,* 575-592.

Myers, S.C. (1977). The Determinants of Corporate Borrowing. *Journal of Financial Economics, 5*, 147-175.

Myers, S.C. (1993). Still Searching for Optimal Capital Structure. *Journal of Applied Corporate Finance*, *6*(1), 4-14.

Myers, S.C. (2001). Capital Structure. *Journal of Economic Perspectives*, *15*(2), 81-102.

Myers, S.C., & Majluf, N.S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187-221.

NBER Working Paper.

Nimalathasan, B., & Valeriu, B. (2010). Capital Structure and Its Impact on Profitability: A Study of Listed Manufacturing Companies in Sri Lanka. *The Young Economists Journal, 13*, 55-61.

Nissim, D., & Penman, S.H. (2003). Financial Statement Analysis of Leverage and How It Informs About Profitability and Price-to-Book Ratios. *Review of Accounting Studies, 8*(2), 531-560.

Nivorozhkin, E. (2002). Capital Structures in Emerging Stock Market: the Case of Hungary. *The Developing Economies, 40,* 166-187.

Noe, T. (1988). Capital Structure and signaling game equilibria. *Review of Financial Studies, 1,* 331-356.

Nor, F.M., Ibrahim, K., Haron, R., Ibrahim, I., & Alias, M.A. (2012*)*.Practices of Capital Structure Decisions: Malaysia Survey Evidence. *International Review of Business Research Papers, 8*(1), 33-63.

Norton, E. (1991a). Factors Affecting capital Structure Decisions. *Financial Review, 26*(3), 431-446.

Norton, E. (1991). Capital Structure and Small Public Firms. *Journal of Business Venturing, 6*(4), 287-303.

Nosa, O.A., & Ose, E.D. (2010). Capital Structure and Corporate Performance in Nigeria: An Empirical Investigation. *AAU Journal of Management Sciences, 1*(1), 43-52.

Nunes, P.J.M., Serrasqueiro, Z.M., & Sequeira, T.N. (2009). Profitability in Portuguese service industries: a panel data approach. *The Service Industries Journal, 29*, 693-707.

O'Brien, K. L.S., & Peters, S.R. (2002). Debt vs. equity and asymmetry information: A review. *The Financial Review, 37,* 317-350.

O'Brien, R.M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity, 41*(5), 673-690.

Obert, M., & Olawale, F. (2010). Does debt really matter on the profitability of small firms? A perspective on small manufacturing firms in Bulawayo, Zimbabwe. *African Journal of Business Management, 4*(9), 1709-1716.

Olayinka, A. (2011).Determinants of capital structure: Evidence from Nigerian panel data. *African Economic and Business Review, 9*(1), 1-16.

Omet, G., & Nobanee, H. (2001). The Capital Structure of Listed Industrial Companies in Jordan. *Arabic Journal of Administrative Sciences, 8*, 273-289.

Omran, M., & Pointon, J. (2004). The Determinants of the Cost of Capital by Industry within an Emerging Economy: Evidence from Egypt. *International Journal of Business, 9*(3), 237-258.

Onaolapo, A.A., & Kajola, S.O. (2010). Capital Structure and Firm Performance: Evidence from Nigeria. *European Journal of Economics, Finance and Administrative Sciences,* (25), 1450-2275.

Ooi, J. (1999). The determinants of capital structure Evidence on UK property companies. *Journal of Property Investment & Finance, 17*(5), 464-480.

Ortiz-Molina, H., & Phillips, G.M. (2010). *Assets liquidity and cost of capital* (No. 15992).

Ouchi, W., & Maguire, M.A. (1975). Organizational Control: Two Functions. *Administrative Science Quarterly, 20,* 559-569.

Oustapassidis, K. (1998). Performance of Strategic Groups in the Greek Dairy Industry. *European Journal of Marketing, 32*, 962-973.

Overesch, M., & Voeller, D. (2007). *The Impact of Personal and Corporate Taxation on Capital Structure Choices* (Discussion Paper, No. 8-20). *ZEW.*

Overesch, M., &Voeller, D. (2008). *The Impact of Personal and Corporate Taxation on Capital Structure Choices* (Discussion Paper No. 8-20). Center for European Economic Research Mannheim University.

Ozkan, A. (1996). Determinants of capital structure and adjustment to long run target. *Journal of Business Finance and Accounting*, *28*, 175-198.

Ozkan, A. (2001). Determinants of Capital Structure and Adjustment to Long Run Target: Evidence from UK Company Panel Data. *Journal of Business Finance and Accounting*, *28*(1), 175-199.

Pagoulatos, E., & Sorenson, R. (1981). A Simultaneous Equation Analysis of Advertising, Concentration and Profitability. *Southern Economic Journal*, *47*, 728-741.

Pandey, I.M., Chotigeat, T., & Ranjit, M.K. (2000). Capital structure choices in an emerging capital market: The case of Thailand. *Management and Change*, *4*(1), 1-14.

Pandey, I. M. (1991). *Capital Structure and the Cost of Capital*. New Delhi: Vikas Publishing House Pvt.

Pandey, I.M. (1992). *Capital Structure and Cost of Capital.* New Delhi: Vikas Publishing House Pvt.

Pandey, I.M. (2004). Capital structure, profitability and market structure: Evidence from Malaysia. *Asia Pacific Journal of Economics and Business*, *8*(2), 78-91.

Pandey, L. (2001). *Capital Structure and the Firm Characteristics: Evidence from an Emerging Market* (IIMA Working Paper). Indian Institute of Management Ahmedabad.

Panno, A. (2003). An Empirical Investigation on Determinants of Capital Structure: The UK and Italian Experience. *Journal of Applied Financial Economics, 13*, 97-112.

Parrino, R., & Weisbach, M. (1999). Measuring Investment Distortions arising from Stockholder- Bondholder Conflicts. *Journal of Financial Economics, 53*, 3-42.

Pattanayak, M. (2008). *Insider ownership and firm value: Evidence from Indian corporate sector.* Working paper, 1-30. Retrieved from http://ssrn.com/abstract=962307.

Paudel, R.B. (1994). *Industrial Finance in Nepal* (Unpublished doctoral thesis). Faculty of Management, Tribhuvan University, Kathmandu.

Penman, S.H., Richardson, S.A., & Tuna, I. (2007). The Book-to-Price Effect in Stock Returns: Accounting for Leverage. *Journal of Accounting Research, 45*(2), 427-467.

Penrose, E.T. (1959). *The Theory of the Growth of the Firm*. New York: Oxford University Press.

Petersen, M.A., & Rajan, R. G. (1994). The benefits of lending relationships: Evidence from small business data. *Journal of Finance, 49*(1), 3-37.

Pettit, R., & Singer, R. (1985). Small Business Finance: A research agenda. *Financial Management, 14*, 47-60.

Peytcheva, E., & Groves, R.M. (2009). Using variation in response rates of demographic subgroups as evidence of non-response bias in survey estimates. *Journal of Official Statistics, 25*(2), 193-201.

Phillips, P.A., & Sipahioglu, M.A. (2004). Performance Implications of Capital Structure; Evidence From Quoted U.K Organizations With Hotel Interests. *The Service Industry Journal, 24(*5), 31-51.

Polit, D. F., & Beck, C.T. (2008). *Nursing research: Generating and Assessing Evidence for Nursing Practice.* Philadelphia: Wolters Kluwer/ Lippincott Williams & Wilkins.

Prahalathan, B. (2010). *The determinants of capital structure: An empirical analysis of listed manufacturing companies in Colombo stock exchange market in Sri Lanka.* ICBI- University of Kelaniya. Sri Lanka, WP, 2010:1-15, [Online]: www.kln.ac.lk/uokr/ICBI2010/27

Prahinski, C. (2001). *Communication Strategies and Supplier Performance Evaluations in an Industrial Supply Chain* (Unpublished doctoral dissertation). The Ohio State University, Ohio.

Pratheepkanth, P. (2011). Capital Structure and Financial Performance: Evidence from Selected Business Companies in Colombo Stock Exchange. *Journal of Arts, Science & Commerce, 2*(2), 171-183.

Pratomo, W.A., & Ismail, A.G. (2007). *Islamic Bank Performance and Capital Structure* (No. 6012). MPRA Paper. Retrieved from http://mpra.ub.uni-muenchen.de/6012/

Pushner, G. (1995). Equity Ownership Structure, Leverage and Productivity: Empirical Evidence from Japan. *Journal of Pacific-Basin Finance Journal, 3*, 241-255.

Qian, Y., Tian, Y., & Wirjanto, T.S. (2008). *Capital Structure Determinants of Publicly Listed Chinese Companies* (Research Paper). Xihu, Hangzhou: University of Zhejian.

Qian, Y., Tian, Y., & Wirjanto, T.S. (2007). *An empirical investigation into the capital-structure determinants of publicly listed Chinese companies: A static*

analysis. Waterloo: University of Waterloo. Retrieved from www.arts.uwaterloo.ca/twirjant

Qureshi, M.A. (2007). System Dynamics Modeling of Firm Value. *Journal of Modeling in Management, 2*(1), 24-39.

Rafiq, M., Iqbal, A., & Atiq, M. (2008). The determinants of capital structure of the chemical industry in Pakistan. *Lahore Journal of Economics, 13*(1), 139-158.

Rafique, M. (2011). Effect of Profitability & Financial Leverage on Capital Structure: A case of Pakistan's Automobile Industry. *Economics and Finance Review, 1*(4), 50-58.

Rajan, R. (1992). Insiders and Outsiders: The Choice between Informed and Ann's Length Debt. *Journal of Finance, 47,* 1367-1400.

Rajan, R.G., & Zingales, L. (1995). What Do We Know About Capital Structure? Some Evidence from International Data. *Journal of Finance, 50*(5), 1421-1460.

Ramasamy, B., Ong, D., & Yeung, M.C.H. (2005). Firm Size, Ownership and Performance in the Malaysian Palm Oil Industry. *Asian Academy of Management Journal of Accounting and Finance, 1*, 81-104.

Ramdani, D., & Witteloostuijn, A.V. (2010). The impact of board independence and CEO duality on firm performance: A quantile regression analysis for Indonesia, Malaysia, South Korea and Thailand. *British Journal of Management, 21*(3), 607-627.

Rao, K.H.S., & Sharma, L.V.L.N. (1967). Capital Structure in Engineering Industry. *Indian Journal of Commerce*, *20*(73), 34-37.

Rao, N.V., Al-Yahyaee, K.H.M., & Syed, L.A.M. (2007). Capital structure and financial performance: evidence from Oman. *Indian Journal of Economics and Business, 7*, 1-14.

Rao, S.M., Waters, M.S., & Payne, B. (1995). Going Private: A Financial Profile. *Journal of Financial and Strategic Decisions, 8*(3), 53-59.

Razak, N.H.A., Ahmad, R., & Aliahmed, H.J. (2008). Government ownership and performance: An analysis of listed companies in Malaysia. *Corporate Ownership and Control, 6*(2), 434-442.

Rehman, W.U., Fatima, G., & Admad, M. (2012). Impact of Debt Structure on profitability in Textile Industry of Pakistan. *International Journal of Economic Research., 3*(2), 61-70.

Remmers, L., Stonehill, A., Wright, R., & Beekhuisen, T. (1974). Industry and size as debt ratio determinants in manufacturing internationally. *Financial Management, 3*, 24-32.

Robb, A., & Robinson, D. T. (2009).*The Capital Structure Decisions of New Firms* (Working Paper).National Bureau of Economic Research.[online] Available:http://papers.ssrn.com/so13/papers.cfm?abstract-id=1345895

Roberts, M.R., & Sufi, A. (2009). Control Rights and Capital Structure: An Empirical Investigation. *The Journal of Finance, 64*(4), 1657-1695.

Robichek, A. A., Higgins, R.C., & Kinsman, M. (1973). The Effect of Leverage on the Cost of Equity Capital of Electric Utility Firms. *The Journal of Finance, 28*(2), 353-367.

Roden, D.M., & Lewellen, W.G. (1995). Corporate capital structure decisions: evidence from leveraged buyouts. *Financial Management, 24*, 76-87.

Roper, S. (1999). Modelling Small Business Growth and Profitability. *Small Business Economics, 13,* 235-252.

Roscoe, J.T. (1975). *Fundamental research statistics for the behavioural sciences.* New York: Holt Rinehart & Winston.

Ross, S. (1977). The Determination of Financial Structure: The Incentive Signalling Approach. *Bell Journal of Economics, 8,* 23-40.

Ross, S. (1985). Debt and taxes and uncertainty. *Journal of Finance, 40,* 637-657.

Rouf, M.A. (2011). The relationship between corporate governance and value of the firm in developing countries: Evidence from Bangladesh. *The International Journal of Applied Economics and Finance, 5*(3), 237-244.

Rozeff, M. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of Financial Research, 5*, 249-259.

Ruan, W., Tian, G., & Ma, S. (2011). Managerial ownership, capital structure and firm value: Evidence from China's civilian-run firms. *Australasian Accounting Business and Finance Journal, 5*(3), 73-92.

Rub, N.A. (2012). Capital Structure and Firm Performance; Evidence from Palestine Stock Exchange. *Journal of Money, Investment and Banking, 23,* 109-117.

Ruland, W., & Zhou, P. (2005). Debt, diversification and valuation. *Review of Quantitative Finance and Accounting, 25*(3), 277-291.

Ryu, K., & Yoo, J. (2011). Relationship between management ownership and firm value among the business group affiliated firms in Korea. *Journal of Comparative Economics, 39*(4), 557-576.

Sabir, M., & Malik, Q.A. (2012). Determinants of Capital Structure- A Study of Oil and Gas Sector of Pakistan. *Interdisciplinary Journal of Contemporary Research in Business, 3*(10), 395-400.

Saeedi, A., & Mahmoodi, I. (2011). Capital Structure and Firm Performance: Evidence from Iranian Companies. *International Research Journal of Finance and Economics, 70*, 20-30.

Salawu, R.O. (2007). An Empirical Analysis of the Capital Structure of Selected Quoted Companies in Nigeria, *International Journal of Applied Economics and Finance, 1*(1), 16-28.

Salawu, R.O., Asaolu, T.O., & Yinusa, D.O. (2012). Financial Policy and Corporate Performance: An Empirical Analysis of Nigerian Listed Companies. *International Journal of Economics and Finance, 4*(4), 175-181.

Salehi, M., & Biglar, K. (2009). Study of the Relationship between Capital Structure Measures and Performance: Evidence from Iran. *International Journal of Business and Management, 4*(1), 97-103.

Salwani, A., Wan-Mahmood, W.M., & Atiqah-Rashidah, A.S. (2007). *A Study on the Determinants of Capital Structure in Property Companies: Malaysian Evidence.* Proceeding of the 1st Terengganu International Business and Economic Conference, Malaysia.

San, O.T., & Heng, T.B. (2011). Capital Structure and Corporate Performance of Malaysian Construction Sector. *International Journal of Humanities and Social Science, 1*(2), 28-36.

Sarma, L.V.L.N., & Rao, K.S.H. (1969). Leverage and the Value of the Firm. *The Journal of Finance, 24*(4), 673-677.

Sarndal, C.E., Swensson, B., & Wretman, J. (1992). *Model Assisted Survey Sampling.* New York: Springer-Verlag.

Sayeed, M. A. (2011). The Determinants of Capital Structure for Selected Bangladeshi Listed Companies. *International Review of Business Research Papers*, *7*(2), 21-36.

Schiantarelli, F., & Sembenelli, A. (1999). *The maturity structure of debt: Determinants and effects on firms' performance? Evidence from the United Kingdom and Italy* (Policy Research Working Paper series). The World Bank.

Schipper, K., & Smith, A. *(*1986). A comparison of equity carve-outs and seasoned equity offerings: Share price effects and corporate restructuring. *Journal of Financial Economics, 15,* 153-186.

Schlingemann, F.P., Stulz, R.M., & Walkling, R.A. (2002). Divestitures and the liquidity of the market for corporate assets. *Journal of Financial Economics, 64*, 117-144.

Schouten, B., Cobben, F., & Bethlehem, J. (2009). Indicators for the Representativeness of Survey Response. *Survey Methodology*, *35*, 101-113.

Schwartz, E., & Aronson, J.R. (1967). Some Surrogate Evidence in Support of the Concept of Optimal financial Structure. *Journal of Finance, 22*, 10-18.

Scott, J. (1976). A Theory of Optimal Capital Structure. *Bell Journal of Economics, 8*, 33-54.

Scott, D.F., & Johnson, D.J. (1982). Financing Policies and Practices in Large Corporations. *Financial Management*, *11*(2), 51-59.

Scott, D.F., & Martin, J.D. (1975). Industry Influence on Financial Structure. *Financial Management, 4*(1), 67-73.

Scott, J. (1977). Bankruptcy, secured debt, and optimal capital structure. *Journal of Finance*, *32*(1), 1-19.

Sekaran, U. (2003). *Research methods for business: A skill building approach.* New Jersey: John Wiley and Sons.

Shah, A. (2005). *The Determinants of Capital Structure in Pakistani Listed Non-Financial Firms.* Presented at 20th AGM & Conference of Pak Society of Development Economics, Islamabad.

Shah, A., & Khan, S. (2007). Determinants of capital structure: Evidence from Pakistan Panel Data. *International Review of Business Research Papers, 3*(4), 265-282.

Shahar, H.B. (1968). Capital Structure and the cost of capital: a Suggested Exposition. *The Journal of Finance, 23*(4), 639-653.

Sharma, A.K. (2006). Financial Leverage and Firm Value; A study of Capital structure of selected manufacturing sector firms in India. *The Business Review, Cambridge, 6*(2), 70-76.

Sharma, L., & Rao, H. (1969). Leverage and the Value of the Firm. *Journal of Finance,* 673-677.

Sharma, S.K. (1983). *Determinants of Capital Structure and its Implications: With Special Reference to Chemical and Pharmaceutical Industry in India 1969-1978* (Unpublished M.Phil. dissertation). University of Delhi, Delhi.

Sheikh, N. A., & Wang, Z. (2011). Determinants of capital structure: An empirical study of firms in manufacturing industry of Pakistan. *Managerial Finance, 37*(2) 117-133.

Shepherd, W.G. (1994). *The Economics of Industrial Organization.* Englewood Cliffs: Prentice-Hall International.

Shivdasani, A., & Stefanescu, I. (2010). How do pensions affect capital structure decisions? *Review of Financial Studies, 23,* 1287-1323.

Shrestha, R.D. (1993). Focus on Capital Structure of Selected and Listed Companies. *Pravaha Journal of Management, 10*.

Shrestha, M.K. (1985). Analysis of Capital Structure in Selected Public Enterprises. *Prashasan: The Nepalese Journal of Public Administration, 16*, 41-49.

Shuetrim, G., Lowe, P., & Morling, S. (1993). *The Determinants of Corporate Leverage: A Panel Data Analysis* (Research Discussion Paper, No.9313). Melbourne: Reserve Bank of Australia.

Simerly, R.L., & Li, M. (2000). Environmental dynamism, capital structure and performance: a theoretical integration and an empirical test. *Strategic Management Journal, 21*, 31-50.

Singapurwoko, A., & Wahid, M.S.M.E. (2011). The Impact of Financial Leverage to Profitability Study of Non-Financial Companies Listed in Indonesia Stock Exchange. *European Journal of Economics, Finance and Administrative Sciences, 32*, 136-148.

Singh, A. (2003). The New International Financial Architecture, Corporate Governance and Competition in Emerging Markets: Empirical Anomalies and Policy Issues. In Ha-Joon Chang (eds.) *Rethinking Development Economics*, Anthem Press.

Singh, M., & Nejadmalayeri, A. (2004). Internationalization, capital structure, and cost of capital: evidence from French corporations. *Journal of Multinational Financial Management, 14*, 153-169.

Singh, A., & Hamid, J. (1992). *Corporate Financial Structure in Developing Countries* (Technical Paper 1). Washington DC: IFC, World Bank.

Singh, M., & Davidson, W.N. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking and Finance, 27*, 793-816.

Sinha, P. (2011). Short-term selling of a stock: a model. *Serbian Journal of Management*, *6*(1), 55-62.

Smith, C.W., & Warner, J.B. (1979). On Financial Contracting: An Analysis of Bond Covenants. *Journal of Financial Economics, 7*, 17-116.

Sogorb, M.F. (2002). On the capital structure in small and medium enterprises: the Spanish case. [online]. Available: http://www.papers.ssrn.

Soloman, E. (1963). Leverage and the Cost of Capital. *The Journal of Finance*, *18*(2), 273-279.

Song, H.S. (2005). *Capital Structure Determinants. An Empirical Study of Swedish Companies* (CESIS, Electronic Working Paper Series). Janvier, 25.

Stanley, M.T. (1981). Capital Structure and Cost of Capital for the Multinational Firm. *Journal of International Business Studies*, *12*(1), 103-120.

Stevens, J.P. (2002). *Applied Multivariate Statistics for the Social Sciences.* Mahwah: Lawrence Erlbaum Associates.

Stiglitz, J. (1974). On irrelevance of corporate financial policy. *American Economic Review*, *64*(6), 851-866.

Stinchcombe, A.L. (1965). *Social structure and organizations*. J.G (ed.). Handbook of Organizations. Chicago: Rand McNally.

Stohs, M.H., & Mauer, D.C. (1996). The determinants of corporate debt maturity structure. *Journal of Business, 69*(3), 279-312.

Strebulaev, I.A. (2007). Do tests of capital structure theory mean what they say? *Journal of Finance, 62,* 1747-1787.

Strebulaev, I.A. (2003). *Do Tests of Capital Structure Theory Mean What They Say?* (Job Market Paper). London Business School, 1-46.

Stultz, R. (1990). Managerial Discretion and Optimal Financing Policies. *Journal of Financial Economics, 26*, 3-27.

Stulz, R.M. (1988). Managerial control of voting rights: Financing policies and the market for corporate control. *Journal of Financial Economics, 20*, 25-54.

Stulz, R.M., & Johnson, H. (1985). An analysis of secured debt. *Journal of Financial Economics*, *14*, 501-521.

Tabachnick, B.G., & Fidell, L.S. (1996). *Using Multivariate Statistics.* New York: Harper Collins.

Taggart, R. A. (1985). Secular Patterns in the Financing of U.S. Corporations. *In Friedman, B. (ed), Corporate Capital Structures in the United States.* University of Chicago Press, 13-80.

Tamari, M. (1980). The financial structure of the small firm: An international comparison of corporate accounts in the U.S.A., France, U.K., Israel, and Japan. *American Journal of Small Business*, *4*, 20-34.

Tamulyte, J. (2012). The determinants of capital structure in the Baltic States and Russia. *Electronic Publications of Pan-European Institute,* 1-35.www.tse.fi/pei.

Tang, C.H., & Jang, S.S. (2007). Revisit to the determinants of capital structure: a comparison between lodging firms and software firms. *International Journal of Hospitality Management*, *26*(1), 175-187.

Tashfeen, H., & Liton, C. (2010). Is the cost of capital an important determinant of market performance of private commercial banks in Bangladesh? *Proceeding of ASBBS, 17*(1), 389-399.

Taub, A.J. (1975). Determinants of the firm's capital structure. *Review of Economics and Statistics, 57*, 410-416.

Teker, D., Tasseven, O., & Tukel, A. (2009). Determinants of Capital Structure for Turkish Firms: A Panel Data Analysis. *International Research Journal of Finance and Economics, 29*, 179-187.

Theis, J., & Casey, M. (1999). An empirical investigation of agency relationships and capital structure of property management firms in UK. *Journal of Property Investment and Finance*, *17*(1), 27-34.

Thompson, B. (1999). *Understanding coefficient alpha, really* (Paper presented at the annual meeting of the Education Research Exchange). Texas: College Station.

Tian, G. G., & Zeitun, R. (2007). Capital structure and corporate performance: evidence from Jordan. *Australian Accounting Business and Finance Journal*, *1*(4), 40-53.

Timan, S., & Wessels, R. (1988). The determinants of capital structure choice. *Journal of Finance*, *43*(1), 1-19.

Titman, S. (1984). The effect of capital structure on a firm's liquidation decisions. *Journal of Financial and Quantitative Analysis*, *13*, 137-151.

Titman, S., & Wessels, R. (1985). *The Determinants of Capital Structure Choice* (Working Paper). UCLA.

Tong, G., & Green, C.J. (2004). *Pecking order or trade-off hypothesis? Evidence on the capital structure of Chinese companies* (Working paper). Loughborough: Loughborough University.

Tran, N.D., & Khoig, R.N. (2006). Capital Structure in Small and Medium-sized Enterprises: The case of Vietnam. *ASEAN Econ. Bull*., *23*, 192-211. DOI: 10.1108/10569210710774730

Tufano, P. (2001). HBS-JFE conference volume: complementary research methods. *Journal of Financial Economics, 60,* 179-185.

Tychon, P. (1997). On the Valuation of Corporate Debt Contracts and Capital Structure. Louvain-la -Neuve: *CIACO.*

Umbach, P.D. (2005). Getting back to the basics of survey research. *New Directions for Institutional Research,* (127), 91-100.

Van-Wijst, N., & Thurik, R. (1993). Determinants of Small Firm Debt Ratios: An analysis of Retail Panel Data. *Small Business Economics, 5,* 55-65.

Velnampy, T., & Niresh, J.A. (2012). The Relationship between Capital Structure & Profitability. *Global Journal of Management and Business Research, 12*(13), 66-74.

Voulgaris, F., Asteriou, D., & Agiomirgianakis, G. (2004). Size and Determinants of Capital Structure in the Greek Manufacturing Sector. *International Review of Applied Economics, 8(*2).

Voulgaris, D. (2002). Capital structure, asset utilization, profitability and growth in the Greek. *Journal of Applied Economics, 34,* 1379-1388.

Voulgaris, F., Asteriou, D., & Agiomirgianakis, G. (2002). Capital structure, asset utilization, profitability and growth in the Greek manufacturing sector. *Applied Economics, 34*(11), 1379-1388.

Wagner, J. (2012). A comparison of alternative indicators for the risk of non-response bias. *Public Opinion Quarterly, 76,* 555-575.

Wald, J.K. (1999). How firm characteristics affect capital structure: an international comparison. *Journal of Financial Research, 22*(2), 161-87.

Wald, J. (1999). Capital Structure with Dividend Restrictions. *Journal of Corporate Finance, 5,* 193-208.

Ward, C. (1999). Estimating the cost of capital. *Journal of Corporate Real Estate, 1*(3), 287-293.

Ward, M., & Price, A. (2006). *Turning Vision into Value*. Pretoria: Van Schaik Publishers.

Warner, J. B. (1977). Bankruptcy costs: some evidence. *The Journal of Finance, 32*, 337-347.

Wedig, G., Sloan, F.A., Hassan, M., & Morrisey, M.A. (1988). Capital structure, ownership, and capital payment policy: the case of hospitals. *Journal of Finance, 43*(1), 21-40.

Weill , L. (2008). Leverage and Corporate Performance: Does Institutional Environment Matter? *Small Business Economics, 30*, 251-265.

Weiss, L.A., & Wruck, K.H. (1998). Information problems, conflicts of interest, and asset stripping: Chapter 11's failure in the case of Eastern Airlines. *Journal of Financial Economics, 48*, 55-97.

Weston, J.F., & Brigham, E. F. (1992). *Essentials of Managerial Finance*. Hinsdale, IL. The Dryden Press.

Weston, J.F. (1963). A test of cost of capital propositions. *Southern Economic Journal, 30*, 107-112.

Weston, J.F. (1965). A Test of Cost of Capital Proposition. *Southern Economic Journal, 30*, 107-112.

Wippern, R.F. (1966). Financial Structure and the value of the firm. *The Journal of Finance, 21*, 615-633.

Wiwattanakantang, Y. (1999). An empirical study on the determinants of the capital structure of Thai firms. *Pacific Basin Finance Journal, 7*, 371-403.

Wolff, H.K., & Pant, P.R. (2002). *A Hand Book for Social Science Research and Thesis Writing.* Kathmandu: Buddha Academic Publishers & Distributor Pvt. Ltd.

Wolfgang, D., & Fix, R. (2003). *What are the Determinants of the Capital Structure? Some evidence from Switzerland* (Working Paper, No 4/03). Basel: University of Basel WWZ/Department of Finance.

Wurgler, J., & Zhuravskaya, E. (2002). Does arbitrage flatten demand curves for stocks? *Journal of Business, 75,* 583-608.

Xu, X., & Wang, Y. (1997). Ownership structure, corporate governance and firms' performance: the case of Chinese stock companies. *Amherst College and the World Bank Sponsored Study,* 1-54.

Zainodin, H.J., Noraini, A., & Yap, S.J. (2011). An alternative Multicollinearity approach in solving multiple regression problem. *Trends in Applied Science Research, 6(*11), 1241-1255.

Zeitun, R., & Tian, G. (2007). Capital structure and corporate performance: evidence from Jordan. *Australasian Accounting Business and Finance Journal, 1,* 40-53.

Zhang, L. (2005). The value premium. *Journal of Finance, 60,* 67-103.

Zhang, Y. (2010). The Product Category Effects on Capital Structure: Evidence from the SMEs of British Manufacturing Industry. *International Journal of Business and Management*. *5*(8), 86-112.

Zimmer, S. A., & McCauley, R.N. (1991). Bank cost of capital and international competition. *FRBNY Quarterly Review,* 33-59.

ANNEXURES

Annexure 1. Financial Information

Annexure 1.1
Current assets for the selected companies (In Million Rupees)

Company	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BNTL	255.51	350.44	406.18	489.76	561.49	518.66	443.15	479.07	225.15	352.90	306.33	418.93	575.85	645.96	1057.43
BNL	288.62	353.66	369.40	393.85	506.43	544.18	447.83	553.16	436.05	469.70	389.72	505.07	681.44	857.27	988.29
FHL	15.79	20.31	21.95	19.74	19.56	28.63	33.01	31.50	33.62	34.01	42.30	44.39	48.26	49.64	NA
GRUL	NA	NA	344.32	306.56	312.58	241.74	226.76	215.01	225.13	252.34	246.21	352.39	441.97	404.59	NA
HDL	NA	NA	NA	NA	128.71	119.58	110.56	175.31	161.69	197.21	206.11	182.57	224.73	182.25	188.01
KUL	43.54	80.10	109.66	85.51	89.27	84.49	28.30	21.94	21.06	13.90	21.64	36.39	38.44	30.62	NA
NBGUL	85.72	115.87	162.39	211.76	193.54	154.21	83.63	82.09	77.46	77.65	79.23	75.94	74.73	74.59	NA
NBBUL	56.18	86.32	90.32	84.75	95.64	83.09	88.37	119.87	132.54	208.35	197.47	278.18	278.43	284.97	NA
NLOL	77.72	86.52	104.78	97.37	110.83	143.33	115.11	110.15	130.09	126.53	137.72	161.11	206.45	154.34	NA
SRJML	42.57	68.77	60.26	59.98	80.51	76.41	80.13	100.55	136.65	126.23	141.10	136.65	252.39	235.12	NA
SRSML	123.40	104.57	259.14	174.46	195.44	290.93	197.34	129.20	179.70	348.18	230.06	127.08	160.73	391.39	NA
UNL	235.97	352.73	451.88	567.58	399.14	589.88	724.24	891.41	741.61	639.97	744.30	790.63	758.97	745.83	1293.79
OHL	NA	105.97	170.01	110.06	95.17	94.38	118.62	97.04	117.88	134.68	148.01	174.19	205.77	327.87	338.02
SHL	160.48	169.88	140.10	151.17	123.70	141.17	156.16	132.95	157.22	193.17	210.27	267.17	349.25	408.03	528.23
TRHL	193.96	568.16	285.82	64.82	48.42	73.83	85.59	104.87	149.43	175.23	148.52	169.91	228.94	187.44	NA
YYHL	146.33	175.78	194.12	168.82	153.09	157.70	118.08	101.92	78.40	178.13	93.68	78.40	69.95	106.26	NA
STL	738.73	835.65	102.34	1068.44	1114.81	1681.07	1543.93	1752.86	1970.75	1891.94	1877.51	2524.09	2874.49	3286.28	NA
BBCOL	22.38	18.10	8.71	13.93	11.46	14.01	16.32	24.53	25.13	25.85	21.26	91.85	82.80	136.74	NA

Source: Annual report of sample companies

Annexure 1.2
Current liabilities for the selected enterprises (In Million Rupees)

Company	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BNTL	154.92	199.28	212.40	271.66	305.68	272.31	197.16	236.34	155.99	315.41	213.10	377.69	549.75	655.30	886.40
BNL	190.83	211.58	192.23	285.06	340.12	332.85	230.85	293.58	275.48	576.40	416.30	602.21	787.26	1058.64	930.98
FHL	18.78	26.40	27.97	34.76	77.14	90.28	96.54	102.05	111.49	118.75	130.00	136.99	149.84	158.87	NA
GRUL	NA	NA	261.57	282.94	313.39	292.06	329.77	369.91	442.00	494.83	557.38	603.01	442.31	466.25	NA
HDL	NA	NA	NA	NA	101.63	126.05	124.50	200.86	217.86	277.98	316.95	355.00	440.70	439.31	396.89
KUL	4.51	52.30	11.91	9.49	7.97	90.56	18.44	14.34	12.14	14.28	28.03	50.93	46.37	44.48	NA
NBGUL	10.98	14.97	261.93	355.38	353.27	361.58	332.14	347.92	368.45	381.04	379.24	384.74	385.14	388.09	NA
NBBUL	25.55	29.94	39.00	78.43	87.17	80.89	82.67	106.96	118.57	191.51	180.77	280.48	359.63	350.08	NA
NLOL	34.05	42.73	52.66	43.78	73.76	105.40	76.09	87.40	105.66	99.80	106.43	129.16	175.13	138.33	NA
SRJML	11.97	30.27	33.59	38.05	58.04	44.74	59.08	78.08	190.88	250.90	281.85	248.02	353.75	342.75	NA
SRSML	210.94	224.96	380.45	289.84	302.70	425.03	393.42	382.97	375.64	713.60	581.25	413.40	540.16	851.71	NA
UNL	206.13	294.42	304.81	418.07	223.21	426.45	543.71	882.02	742.23	767.77	797.49	507.23	552.12	579.86	806.56
OHL	NA	99.50	138.49	119.43	111.68	119.98	128.33	195.62	215.35	237.01	251.82	273.44	271.19	321.47	420.56
SHL	196.15	227.98	212.97	230.24	232.98	265.21	280.74	301.16	330.66	383.03	351.29	329.29	413.99	524.33	629.91
TRHL	27.53	76.26	870.04	1502.91	1099.24	1413.45	980.14	1058.10	1123.11	546.05	462.90	632.37	712.84	760.78	NA
YYHL	144.71	171.02	193.39	441.01	346.12	280.88	328.66	459.62	572.54	723.59	281.89	281.56	324.77	371.57	NA
STL	238.85	267.09	309.73	272.53	298.20	380.76	1190.11	1654.11	1951.47	1822.27	1808.15	2525.55	2842.93	3222.22	NA
BBCOL	24.12	28.06	25.35	19.59	27.33	62.55	48.38	89.60	95.94	36.46	37.43	60.03	73.53	74.41	NA

Source: Annual report of sample companies

Annexure 1.3
Age for the selected enterprises

Company	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BNTL	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
BNL	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
FHL	2	3	4	5	6	7	8	9	10	11	12	13	14	15	NA
GRUL	NA	NA	4	5	6	7	8	9	10	11	12	13	14	15	NA
HDL	NA	NA	NA	NA	2	3	4	5	6	7	8	9	10	11	12
KUL	2	3	4	5	6	7	8	9	10	11	12	13	14	15	NA
NBGUL	26	27	28	29	30	31	32	33	34	35	36	37	38	39	NA
NBBUL	13	14	15	16	17	18	19	20	21	22	23	24	25	26	NA
NLOL	10	11	12	13	14	15	16	17	18	19	20	21	22	23	NA
SRJML	7	8	9	10	11	12	13	14	15	16	17	18	19	20	NA
SRSML	1	2	3	4	5	6	7	8	9	10	11	12	13	14	NA
UNL	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
OHL	NA	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SHL	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
TRHL	2	3	4	5	6	7	8	9	10	11	12	13	14	15	NA
YYHL	22	23	24	25	26	27	28	29	30	31	32	33	34	35	NA
STL	32	33	34	35	36	37	38	39	40	41	42	43	44	45	NA
BBCOL	28	29	30	31	32	33	34	35	36	37	38	39	40	41	NA

Source: Annual report of sample companies

Annexure 1.4
Fixed assets for the selected enterprises (In Million Rupees)

Company	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BNTL	90.28	104.55	123.30	137.09	126.43	149.14	129.06	139.85	193.62	170.74	151.40	203.75	280.11	396.50	422.57
BNL	333.13	346.48	360.61	445.39	416.99	381.60	326.10	309.48	499.68	669.74	642.96	638.05	665.75	821.40	850.68
FHL	36.27	35.16	33.93	33.02	30.21	27.61	25.57	23.56	22.26	21.16	22.41	21.72	20.66	19.71	NA
GRUL	NA	NA	561.85	532.30	499.54	461.41	432.83	397.29	378.82	334.14	317.30	311.83	292.22	277.55	NA
HDL	NA	NA	NA	NA	425.01	412.10	396.17	382.74	384.15	381.99	366.60	365.94	453.74	497.56	491.31
KUL	19.40	18.85	20.85	23.21	78.15	75.68	37.92	36.09	31.29	30.08	22.99	23.45	22.66	22.14	NA
NBGUL	24.13	22.33	20.01	19.59	22.30	36.48	34.88	32.30	29.43	27.86	26.41	26.64	23.54	20.87	NA
NBBUL	18.08	16.69	14.83	14.03	12.81	12.14	11.54	11.14	9.81	8.68	7.64	30.94	105.33	89.497458	NA
NLOL	15.79	14.68	18.20	16.75	15.29	17.19	18.61	17.04	15.32	14.92	13.53	12.20	11.00	9.97	NA
SRJML	214.58	219.42	226.77	232.39	231.42	226.63	227.01	224.50	320.90	348.89	345.09	334.37	359.86	351.84	NA
SRSML	794.71	798.24	875.95	874.82	862.93	841.48	868.80	856.43	742.36	666.31	615.50	564.38	496.30	453.96	NA
UNL	205.85	192.09	177.87	192.84	172.20	146.16	135.71	127.78	145.78	148.93	140.22	144.15	160.85	157.08	160.62
OHL	NA	188.82	1093.85	1218.78	1187.48	1155.16	1121.91	1088.70	1059.27	1020.31	1012.68	999.27	981.24	1062.43	1406.16
SHL	493.65	496.77	490.40	485.68	485.56	547.17	516.48	472.62	457.84	453.92	427.19	409.17	429.92	577.96	677.28
TRHL	782.65	1430.50	1815.83	2052.34	3379.13	3346.37	3264.89	3116.43	3060.61	2849.20	2778.47	2740.24	2654.37	2566.27	NA
YYHL	759.64	844.46	1036.99	1052.08	1007.28	954.96	915.01	907.91	888.89	885.28	850.97	845.86	853.59	864.46	NA
STC	39.89	42.08	42.02	42.78	445.17	462.13	465.99	1393.16	1379.61	1377.87	1361.45	1343.39	1308.87	1276.91	NA
BBCOL	54.44	54.05	51.75	48.79	45.10	42.03	39.64	37.37	40.77	40.04	50.49	57.94	57.91	61.47	NA

Source: Annual report of sample companies

Annexure 1.5
The SPSS results for Question 31 (Reliability Statistics (Q.31)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.782	.764	7

Annexure 1.6

Reliability analysis for each factor (Q.31) (Item-Total Statistics)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Debt	20.71	20.195	.556	.839	.745
Size	20.83	25.395	.321	.964	.785
Growth	20.05	26.036	.136	.804	.813
Assets Turnover	20.30	21.666	.479	.964	.761
Tangibility of assets	21.54	18.316	.636	.632	.727
Liquidity	21.01	22.939	.540	.909	.754
Others	22.54	16.072	.899	.961	.654

Annexure 2

Company Profile

1. Bottlers Nepal Limited

Bottlers Nepal Limited was established in 1973 as a private limited company under the company act, 1964. It was converted into public limited company in 1984. The main objective of the company is to produce and bottle soft drinks under the brand name of Coke, Fanta, and Sprite etc. The company has established a subsidiary company Bottlers Nepal (Terai) Limited, in Chitwan District, is managing the company since 1993. The installed capacity of the plant is 220 bottling per minute (BPM).

2. Bottlers Nepal (Terai) Limited

Bottlers Nepal (Terai) Limited, a subsidiary company of Bottlers Nepal Ltd. Balaju, Kathmandu, was established in 1986 under the company act, 1964 with object of producing and bottling soft drinks under the brand name of Coke, Fanta, Sprite, etc.The company situated in Chitwan District is under the management of F&N Coca Cola Pte. Ltd., Singapore since September 1993.The installed capacity of the plant is 350 bottling per minutes.

3. Fleur Himalayan Limited

Fleur Himalayan Ltd. established in 2053 B.S., had been founded to pioneer the efforts to popularize herbal resources and traditional medicines and hygienic products by blending these natural resources and traditional knowledge with modern technology. Our aim is to utilize these natural resources of herbs in a renewable basis. Fleur Himalayan Ltd. (FHL) has been working towards developing herbal medicines and hygienic products with due research on the subject. The Research and Development (R & D) team blends traditional knowledge with modern technology. The research on the products is vigorously done before the R & D team declares them to be suitable for the market. FHL has a state of art manufacturing facility of approx. 65,000 sq. ft. area in Jeetpur, Bara. The products are manufactured with the most modern technology in controlled areas to satisfy its quality parameters

4. Gorakhkali Rubber Udyog Limited

Gorakhkali Rubber Udyog Limited was incorporated in 1984 under the company act, 1964 with an objective of manufacturing tyre and tube of various types of trucks, buses, cars, jeeps, motorcycles and other vehicles and market them in and outside the country. The company was incorporated as a joint sector company, Nepal oil Corporation, National Trading Limited, NIDC, Salt Trading Corporation are the main promoters and is managed by Salt Trading Corporation. Asian Development Bank is also holding 13 percent equity in the company.

5. Himalayan Distillery Private Limited

Established in January 1999, the success that Himalayan Distillery has seen in such a small period of time explains the company's commitment towards winning. The distillery is located in serene surroundings at the foothills of Himalayas in the southern part of Nepal. The distillation unit stands as a landmark.

The local airport is only minutes away and the nearest Indian border Birjunj/Raxaul is only 12km from the factory site. The company's trust with excellence comes from the rich legacy it has inherited from Jawalakhel Distillery Pvt. Ltd., its parent company and the largest player in Nepal's liquor market. Himalayan Distillery is a culmination of a perfectionist's dream. A dream to build a distillery that will stand out from others in every respect. And this is what Himalayan Distillery Limited today is. Himalayan Distillery is not only a modem distillery but also a research unit. The product of the Himalayan Distillery are Royal Stag available in bottles of 750 ml, 375 ml,& 180 ml, Ultimate available in bottles of 750 ml,375 ml,& 180 ml, Wild Horse available in bottles of 180 ml and Himalayan Aaaila available in bottles of 750 ml. plant is 350 bottling per minute (BPM).

6. Khadya Udhyog Limited

Established in 2027 Jestha as an industry, the foundation was laid in 2027 Magh 24 (nine months after establishment) and the first production started in 2029 Shrawan. With the increased demand of its products, the production capacity was upgraded to 100 MT/ 24 hours from the capacity of 40 MT/24 hour (at the time of establishment).

The main objective of establishing the factory was to produce wheat related processed products to fulfill the demand of these food products in the Nepali market to replace imports from India. The factory produces maida, pitho, bran, etc within the country itself (previously it was imported from India) as the raw material necessary for the other industries such as bread, noodles, biscuit, cookies etc. This industry is a great contribution to such industries.

7. Nepal Vanaspati Ghee Udyog Limited

Nepal Vanaspati Ghee Udyog Limited was established under the company act, 1964 in 1976 with an objective of producing ghee, oil, and other by products and markets them all over the country. The main promoter of the company is Salt Trading Corporation Limited which has largest trading network and well trading reputation throughout the country.

8. Nepal Bitumen and Barrel Udyog Limited

Nepal Bitumen and Barrel Udyog Ltd., a public company establish by Nepal Oil Corporation limited in 1984 is now taken over by Panchakanya Group – a leading industrial and trading house of Nepal, under privatization programme of Government of Nepal. It's Plants and Products are Barreels, Drums and containers: The modern barrel plant is capable for producing mild steel containers of different designs, dimensions and thickness suitable for the packaging of liquid and semi – liquid products. The containers are manufactured by using quality cold rolled sheet and are painted in attractive colors to meet customer requirements. High quality, low cost and functional characteristics provides complete satisfaction to the users. Its automatic filling plant equipped with photo- censored device has efficient and accurate filling capacity. It is the only industry to supply bitumen in the kingdom. It provides test certificate along with every consignment. It can also arrange site delivery on request.

9. Nepal Lube Oil Limited

Nepal Lube Oil Ltd, a public company established by Chaudhary Group in 1984- a leading business group of Nepal. It was listed in 1986 in Nepal Stock Exchange Ltd

for its securities transaction. The factory of Nepal Lube Oil Ltd is in Amlekhgunj, Bara and corporate office is in Chaudhary Tower, Lalitpur.

10. Sri Ram Sugar Mills Limited

Sri Ram Sugar Mills Ltd., a public company established in 1992 and it was listed in Nepal Stock Exchange in 1999. Its factory is located in Mahammadpur, Rautahat, Biratnagar. This company was promoted by renounced business group of Nepal - Golchha Group. Its head office is in Golchha House, Ganabahal, Kathmandu. The aim of this company is to produce quality sugar utilizing locally produce sugar cane.

11. Raghupati Jute Mills Limited

Raghupati Jute Mills Ltd., a public company was listed in Nepal Stock Exchange in 1988. Its factory is located in mills area, Rani, Biratnagar. The aim of this company is to produce jute products utilizing locally produced raw materials. This company was promoted by renounced business group of Nepal - Golchha Grop. Its head office is in Biratnagar and corporate office in Golchha House, Ganabahal, Kathmandu.

12. Unilever Nepal Limited

Unilever Nepal Limited was established in 1994 as a Joint venture company with Objective of establishing a factory to manufacture soaps, detergents, cosmetics, toiletries, oleaginous, saponaceous, unguents and other chemical products under the brand name of Hindustan Lever Limited. Hindustan Lever Limited with 80 percent ownership has invested Rs. 73.7 millions in equity. This is the first joint venture of Hindustan Lever Limited outside India. Unilever Nepal Limited was preliminary known as Nepal Lever Limited. It was renamed on 10th February 2005. It is the largest fast moving consumer goods Company, with leadership in Home & Personal Care Products and Foods & Beverages. UNL's brands spread across 20 distinct consumer categories touch the lives of two out of three Nepalese.

13. Oriental Hotel Limited

The hotel is adjacent to the Narayanhiti Palace Mueseum and within easy walking distance of major business houses, diplomatic offices and popular tourist spots. This

hotel in Kathmandu is also near the Pashupatinath Temple, great shopping in nearby Thamel and just nine kilometers from Tribhuvan International Airport, making it a great place to land for both business and leisure travellers. After a busy day of sightseeing or attending business meetings, return to comfort at the Radisson. A stay at the Radisson Hotel Kathmandu puts guests close to an array of tourist attractions, including Bhaktapur Durbar Square, Bouddhanath Stupa and the Changu Narayan Temple.

14. Soaltee Hotel Limited

Crowne Plaza Kathmandu-Soaltee is in peaceful Tahachal, 4km from the palaces and temples of Durbar Square in the city centre and 6 km from Pashupatinath Temple and 3km to Swayambhunath Stupa shrine. Tribhuvan International Airport is 8 km away. The hotel host stylish banquets, conventions and conferences in one of 7 elegant meeting rooms with space for 20-1,200 people. Crowne Plaza Kathmandu-Soaltee is one of the premier conference venues in South Asia, having hosted visits by Queen Elizabeth II, Princess Diana and numerous other heads of state. Speak to our Concierge about unforgettable tours or hiking trips throughout the Kathmandu Valley.

15. Taragaon Regency Hotel Limited

Hyatt Regency Kathmandu is a 5-star luxury hotel and resort, set on 37 acres of landscaped grounds: in the traditional Newari style of Nepalese architecture. This beautiful hotel and resort is located in the metropolitan city of Kathmandu at Taragaon, Boudha on the road to the Boudhanath Stupa - the most holy of Tibetan Buddhist shrines outside Tibet and one of the UNESCO World Heritage Site. The 5-star hotel is just 4 km from the Tribhuvan International Airport and 6 km from the city centre of Kathmandu. The Boudhanath Stupa is within five minutes walking distance from the hotel. This hotel in Kathmandu is blessed with panoramic views of the Boudhanath Stupa and the surrounding mountain ranges.

16. Yak & Yeti Hotel Limited

Hotel Yak and Yeti, is a luxury 5-star deluxe hotel in the heart of Kathmandu, Nepal. Modern day sophistication greets cultural heritage in the ample grounds of the 100-

year-old palace and newly designed structure of the hotel. Find refuge among antique fountains, gilded temples and emerald gardens as you remain just moments away from all the shops and adventure of the Kathmandu city, located at Durbar Marg.

17. Salt Trading Corporation (STC) Limited

Salt Trading Corporation (STC) Limited is one of the largest business organization in Nepal established as an experiment of the utility of Public Private Partnership (PPP) for a developing country under PPP act of Government of Nepal. Salt Trading Corporation (STC) Limited was established in 1963 AD. The corporation was launched with objective to avail iodized common salt for all citizens throughout the country. The central corporate office of Salt Trading Corporation is located at Kalimati, Kathmandu, with its zonal, branch, sub-branch and depot offices in different other parts of the country.

With the proportion of 79:21 investment from private- public (state owned National Trading Limited), STC is managed by joint effort of state (Government) and private (shareholders). In the business journey, Salt Trading Corporation is a brilliant example of success that provides its services through 93 offices (22 offices and 71 liaison offices) that include nearly whole population of the country as customers. STC has over 400 staff and has provided opportunities for over 1000 workers and laborers.

18. Bishal Bazar Company Limited

Bishal Bazar Co. Ltd is trading infrastructure complex is one of the most favorite shopping complex of the Kathmandu. It was established in 2026 B.S. Nepal government owns 34 percent of shares in the Bishal Bazar Company Ltd. Its current paid up capital is Rs. 49, 140,000 and is listed in NEPSE. Its stock symbol is "BBC". This shopping Complex is located at heart of Kathmandu in New Road. There are altogether 379 commercial shops and godwons in this shopping complex. The head office of this complex is located at the top floor in south east direction of the complex.

Survey Questionnaire

Dear Sir/ Madam

I am Ph. D. Scholar of Tribhuwan University, Faculty of Management. In order to accomplish research entitled "Financing Policies in Nepalese Enterprises", I hereby request you to kindly provide me information mentioned in the questionnaire enclosed herewith. I assure you that all the information will be kept completely confidential and will not be used for any other purpose. It will be used as aggregate level only.

Thanking You,

Sincerely Yours

Yuga Raj Bhattarai

Part –I

Respondent's Profile

Name of the respondent (optional): ……..… Age:.....

Name of the Organization: ….....Total no. of Employees:…….

Nature of Organization (industry)…… ……Designation:……..…

Experience (years):…….. . Qualification:….....

Sales Revenue (last fiscal year):…… Total assets (last fiscal year):……

Part-II

[Questionnaire related to the factors that influence a company's financing Policy]

1. What kind of financing policy you have practiced in your enterprise? (Please tick one)
   (a) Formal policy (b) Informal policy (c) No policy

2. Who sets the financing policy in your enterprise? (Please tick one)
   (a) Board of directors (b) President/managing director
   (c) General manager (d) Vice president/ Finance manager
   (e) Others (please specify)

3. Who is most important (influential) in setting your firm's target financial structure ratios? (Please indicate the most important with a 1, next most important with a 2, etc.)

(a)	Our own management and staff of analysts	
(b)	Investment bankers	
(c)	Commercial bankers	
(d)	Trade creditors (suppliers)	
(e)	Outside security analysts	
(f)	Comparison with ratios of industry competitors	
(g)	Other (please specify)	

4. How would you describe financing policy in your enterprise? (Please tick one)
(a) Risk avoiding (b) Risk accepting (c) Situational (d) Changes over time (e) Others (please specify)

5. Do tax issues have a major influence on your financing decisions? (Please tick one)
   (a)Yes (b) No (c) Unsure

6. Do you have a policy of maintaining spare debt capacity? (Please tick one)
   (a)Yes (b) No (c) Unsure

7. Could you borrow more at the same interest rate? (Please tick one)

(a)Yes (b) No (c) Unsure

8. Do you make use of off-balance sheet financing techniques? (Please tick one)

(a)Yes (b) No (c) Unsure

9. Is the concept of an industry norm (standard debt ratios for similar lines of business as your own) ever used by your firm in arriving at a financing decision? (Please tick one)

(a) Yes (b) No (c) Unsure

10. How does your firm measure the degree of financial leverage used? Please rank the following financial leverage measures in order of their importance in your firm's financing decision procedures. (Indicate the most important with a 1, next most important with a 2, etc.)

(a)	Total liabilities divided by total assets (the debt ratio)	
(b)	Long term debt divided by total debt plus net worth (the long- term debt to total capitalization ratio)	
(c)	Common equity divided by total assets (the common equity ratio)	
(d)	Long - term debt divided by total assets(the long- term debt ratio)	
(e)	Long term debt divided by net worth (the long-term debt to net worth ratio)	
(f)	Earnings before interest and taxes divided by total interest expense (The times-interest – earned ratio)	
(g)	Earnings before interest and taxes divided by interest expense plus the before–tax equivalent of preferred dividend payments (the times - interest -and preferred dividend coverage ratio)	
(h)	Earnings before interest and taxes plus rent expense (i.e. lease payments) plus depreciation expense divided by interest expense plus the before-tax equivalent of preferred dividend payments plus rent expense (i.e., lease payments) (the cash flow coverage ratio)	
(i)	Other (please identify the measure)	

11. Indicate the relative importance of the following factors in governing your firm's financing decisions. (On a scale of 1 to 5, where 1 = Unimportant and 5 = Important.)

	Relative importance factors	1	2	3	4	5
(a)	Maximizing price of publicly traded securities					
(b)	Financial flexibility					
(c)	Costs of bankruptcy					
(d)	Restrictive covenants of senior securities					
(e)	Projected cash flow or earnings from the assets to be financed					
(f)	Riskiness of the assets to be financed					
(g)	Avoiding dilution of common shareholders' claims					
(h)	Company credit rating					
(i)	Transaction costs					
(j)	Personal tax rates of your debt and equity-holders					
(k)	Maintaining comparability with firms in the industry					
(l)	Other					

12. Do you have any preferences for short-, medium- or long-term funding sources? (Please tick)

(a)	Short (up to 1 year)	
(b)	Medium/Short (up to 3 years)	
(c)	Medium (up to 5 years)	
(d)	Long (>5 years)	
(e)	Policy of matching assets and liabilities	
(f)	Term does not matter	
(g)	Depends on interest rates	
(h)	A balance of short/medium/long	

13. Indicate the relative importance of the following sources of long-term funds in order of preference for financing new investments (1=Unimportant, 5= Important.

	Sources of long-term funds	1	2	3	4	5
(a)	Internal equity (retained earnings)					
(b)	External common equity					
(c)	Long term debt					
(d)	Convertible debt					
(e)	Straight preferred stock					
(f)	Convertible preferred stock					
(g)	Other					

14. Under what circumstances would you make an equity issue? (Please tick)

(a)	To fund a major expansion	
(b)	To make an acquisition	
(c)	If market conditions is right	
(d)	To reduce leverage if market conditions right	
(e)	Avoid it	

15. Under what circumstances would you make a debt issue? (Please Tick)

(a)	To fund a major expansion	
(b)	To make an acquisition	
(c)	To add to liquidity	
(d)	If market conditions right	
(e)	To fund a long-term asset if market conditions right	
(f)	Avoid it	

16. What factors affect your firm's choice between short- and long-term debts? Respondents are asked to rate on a scale of 1 (not important) to 5 (very important).

	Factors affecting choice of short -and long-term debt	1	2	3	4	5
(a)	We issue short term when we are waiting for long term market interest rates to decline					
(b)	Matching the maturity of our debt with the life of our assets					
(c)	We borrow short-term so that returns from new projects can be captured by shareholders					
(d)	We expect our rating to improve, so we borrow short term until it does					
(e)	Borrowing short-term reduces the chance that our firm will want to take on risky projects					
(f)	We issue long-term debt to minimize the risk of having to finance in “bad times”					

17. What factors affect how you choose the appropriate amount of debt for your firm? Respondents are asked to rate on a scale of 1 (not important) to 5 (very important).

	Factors that affect amount of debt choice	1	2	3	4	5
(a)	The tax advantage of interest deductibility					
(b)	The potential costs of bankruptcy or near bankruptcy financial distress					
(c)	Financial flexibility					
(d)	Our credit rating (as assigned by rating agencies)					
(e)	The transactions costs and fees for issuing debt					
(f)	The debt levels of other firms in the industry					
(g)	We try to have enough debt so that we are not in an attractive target					
(h)	To ensure that upper management works hard and efficiently					
(i)	The volatility of our earnings and cash flows					

18. Has your firm issued convertible debt? (Please tick one)

(a)Yes (b) No

19. What are the factors that affect the decision to issue convertible debt? Please rate on a scale of 1 (not important) to 5 (very important).

Factors affecting convertible debt	1	2	3	4	5
Inexpensive way to issue "delayed" common stock					
Ability to "call"/force conversion if/when necessary					
Stock currently undervalued					
To attract investors unsure about riskiness					
Avoiding short-term equity dilution					
Other industry firms successfully use convertibles					
Less expensive than straight debt					

20. Has your firm seriously considered issuing common stock? If yes, what factors affect your firm's decisions about issuing common stock? Respondents are asked to rate on a scale of 1 (not important) to 5 (very important).

Factors affecting in issuing common stock	1	2	3	4	5
If our stock price has recently risen, the price at which we can issue is "high"					
Stock is our "least risky" source of funds					
Providing shares to employee as stock option plan					
Maintaining a target debt-to-equity ratio					
Using a similar debt/equity ratio as is used by other firms in our industry					
Whether our recent profits have been sufficient to fund our activities					
Issuing stock gives a better impression of our firm's prospects than using debt					
The capital gains tax rates faced by our investors (relative to tax rates on dividends)					
Diluting the holdings of certain shareholders					
Inability to obtain funds using other sources					
Earning per share dilution					

21. What percent of the common stock have owned by the largest three stockowners? (Please tick one)

(a) Less than 5 % (b) 5-10% (c) 10-20% (d) More than 20%

22. How many people have owned the company's common stocks? (Please tick one)

(a) Up to 100 (b) 100-500 (c) 500-1,000 (d) 1,000-10,000 (e) 10,000-100,000 (f) 100,000+

23. Has your firm ever issued right share as sources of equity financing? (Please tick one)

(a)Yes (b) No

24. In what situation does your firm prefer to issue right share as sources of equity financing? (Please tell in a sentence or two below)

……

……

25. How much should a company borrow in relation to its equity capital (i.e. the optimal capital structure level)? (Please tick one)

(a)	Less than or equal to 1:1 of debt to equity	
(b)	More than 1:1 but less than or equal to 2:1 of debt to equity	
(c)	More than 2:1 but less than or equal to 3:1 of debt to equity	

26. What are the important "owners' characteristics" factors influencing capital structure? Please rate on a scale of 1 (not important) to 5 (very important).

Owners' characteristics factors	1	2	3	4	5
Need for control					
Knowledge					
Experience					
Goals					
Risk propensity					
Perceptions and beliefs about external finance					

27. What are the important "firm characteristics" factors influencing capital structure? Please rate on a scale of 1 (not important) to 5 (very important).

Firm characteristics factors	1	2	3	4	5
Liquidity					
Size					
Tax					
Business risk					
Tangibility of assets					
Uniqueness					
Non-debt tax shields					
Other					

28. What are the important "other external characteristics" factors influencing capital structure? Please rate on a scale of 1 (not important) to 5 (very important).

Other external characteristics factors	1	2	3	4	5
State of the economy					
Condition of the market					
Availability of funds					
Industry characteristics					
Government policy					

29. Capital structure improves investors' (both shareholders and creditors) earning.
(a) Strongly agreed (b) Agreed (c) Undecided (d) Disagreed (e) Strongly disagreed

30. Higher ratio of long term debt to equity causes firms to reduce their profitability.
(a) Strongly agreed (b) Agreed (c) Undecided (d) Disagreed (e) Strongly disagreed

31. What are the important factors influencing firm's profitability? Please rate on a scale of 1 (not important) to 5 (very important).

Factors influencing firm's profitability	1	2	3	4	5
Debt					
Size					
Growth					
Assets turnover					
Tangibility of assets					
Liquidity					
Age					

32. Dose your firm believe that the use of a "proper" amount of debt in its capitalization (as opposed to none, or too much) will result in a lower overall cost of capital to the corporation? (Please tick one)
(a) Yes (b) No (c) Unsure

33. How frequently do you estimate your company's cost of capital? (Please tick one)
(a) Annually (b) Every investment (c) Infrequently (d) Other

34. How do you estimate before tax cost of debt? (Please tick one)
(a) Marginal cost (b) Current average (c) Uncertain (d) Other

35. How do you estimate your company's cost of equity? (Please tick one)
(a)CAPM (b) Modified CAPM (c) Dividend Growth Model (d) Arbitrage Pricing Model (e) Other

36. What weighting factors does your use in computing weighted average cost of capital (Please tick one)
(a) Target debt/equity (b) Current book weights (c) Current market weights (d) Other

37. Having estimated your company's cost of capital, do you make any further adjustments to reflect the risk of individual investment opportunities? (Please tick one)
(a) Yes (b) No (c) Unsure

38. Is the cost of capital used for purposes other than project analysis in your company? (For example: to evaluate divisional performance) (Please any one)
(a) Yes (b) No (c) Unsure

39. Firm's market value is directly related to its choice of capital structure. (Please tick one)
(a) Strongly agreed (b) Agreed (c) Undecided (d) Disagreed (e) Strongly disagreed

40. Dose your firm believe that the use of an excessive amount of debt will eventually result in the market price of your common stock being adversely affected? (Please tick one)
(a) Yes (b) No (c) Unsure

41. Firms with debt in their capital structure tend to have high market value than firms with only equity capital
(a) Strongly agreed (b) Agreed (c) Undecided (d) Disagreed (e) Strongly disagreed

42. Which one of the following do you think most appropriate proxy (measure) for firm value? (Please one)
(a) Total market value of debt plus equity (b) Price earnings ratio (c) Earnings value added
(d) Tobin- Q (e) Earnings per share (f) other (please specify)

43. Do you think that debt -equity mix is as a determinant for maximizing firms' market values in Nepal? (Please tick one)
(a) Yes (b) No (c) Unsure

44. Maximizing a firm's market value as the main focus when deciding its choice of capital structure (i.e. financing policy) (Please tick one)
(a) Strongly agreed (b) Agreed (c) Undecided (d) Disagreed (e) Strongly disagreed