IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY OF LISTED MANUFACTURING COMPANIES

(With reference to Nepal Lube Oil Limited and Bottlers Nepal Limited Balaju)

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CHAPTER I

INTRODUCTION

1.1 Background of the Study

The capital structure refers to the proportion of debt and equity capital. This has an important place in the theory of financial management. The financing decision of a company relates to the choice of proportion of debt and equity to finance the investment requirement of which a proper balance is necessary to ensure a tradeoff between risk and return to the shareholder. An optimal capital structure, which consists of a reasonable proportion of debt and equity, can help to maximize the value and ultimately the shareholders wealth (Sultan & Adam, 2015).

Literature examines the impact of the association among capital structure and financial performance of the developed economies, very slightly is identified concerning such implications in developing economies like Iraq which is considered to be the main exporter of oil to the World and still backward in the industrial sector. In such a country common problems of the market include less efficiency, incomplete information and irregularities as compared to developed economies. Previous studies have addressed the issue of capital structure decisions from the point of view of large companies. The capital structure has become a research topic in developing nations only recently despite the fact that all enterprises play a very crucial role in fostering growth and employment in many countries (Modigliani & Miller, 2022). Some research studies have investigated the relationship between capital structure mix as an independent variable and specific corporate characteristics as dependent variables.

Capital Structure refers to the combination of long-term sources of funds such as debentures, long term debt, preference share capital and equity share capital including reserves and surpluses. Capital structure is the composition of the debt and equity securities and is considered a financing decision undertaken by the financial manager. The financial manager must strive to obtain the best financing mix or optimum capital structure for his company.

The company attains capital structure where the debt-equity proportion maximizes the market value of the shares, the uses of debt affect the return and risk of the equity shareholder, it increases the return on equity fund and at the same time it also increases risk (Brealey et al, 2020). A proper balance must be struck between the risk and return in order to maximize the market value of shares.

Capital structure is a very crucial part of financial management as the various compositions of debate equity capital may impact differently on risk and rate of return to equity capital may impact differently on risk and enterprises are raised either through the ownership securities and creditor ship securities. Business enterprise has to maintain a proper mix of both the securities in a manner that the cost and risk perception to the shareholders are minimized (Modigliani & Miller, 2021).

The unplanned capital structure of the companies may also fail to economize the use of their funds (Abor, 2019). Thus, it is being increasingly realized that a company should plan its appropriate capital structure to maximize the use of funds and be able to adapt more easily to changing conditions. The research is concerned with the study of capital structure management of some selected manufacturing companies. To describe the capital structure of any company the long-term source of funds is necessarily used. Well financial performance depends on optimal capital structure. The term capital refers to the long-term funds like debt equity. The capital mix, which leads to the maximum value and minimum cost of capital, is optimal capital structure, which can be obtained by changing the financing mix.

Composition of capital structure is one of the most important components of solvency analysis. Capital structure refers to sources of financing and its economic attributes. Capital structure is usually measured in terms of the relative magnitude of the various financing sources. A financing stability and risk of insolvency depend on its financing sources and the types and sizes of various assets its own. Common size and ratio analysis of capital structure are preliminary measures of the risk of the capital structure. The higher the proportion of debt, the larger the fixed charges of interest and debt repayment and the greater the likelihood of insolvency during

periods of earnings decline or hardship. Capital structure measures serve as screening devices (Bernstein and Wild, 1997).

The right capital structure planning also increases the power of a company to face the losses and changes in financial markets. Capital structure is about putting in place the structure, processes and mechanism that may ensure the company is being directed and managed in a way that

enhances long-term equity value through accountability of managers and enhancing organizational performance (Kajananthan & Nimalthasan, 2013). Therefore, capital structure refers to a set of rules and incentives by which the management of a company is directed and controlled, hence, sound capital structure will have effects on profitability and long-term value of the company for shareholders. Company performance and capital structure has succeeded in attracting a good deal of public interest because it is a tool for socio-economic development. Also when there is good company performance and capital structure, there will be proper and efficient practice in the administration of business entities.

The choice between debt and equity for a business company has implications on the value of a company as well as strategic importance for corporate managers (Berkley et al, 2006). Corporations‟ capital structure mainly depends upon the size and composition of debt or equity well-known as hybrid financing that is then used by companies to be operational (Brealey et al, 2006). The research work of Modigliani and Miller (1958), propounded a theory of capital structure, known as MM theory, which states that there is no optimal capital structure because each structure is based on different assumptions such as a perfect market, no taxes. They put forward a solid platform for today's research of capital structure.

Capital structure decision is the vital one since the profitability of an enterprise is directly affected by such a decision. The successful selection and use of capital is one of the key elements of the financial strategy (Kajananthan et al, 2012). Profitability should be reinvested into the business for its survival (Velnampy, 2006), where profitability is the most prominent issue in the world of corporate finance literature, and the ultimate goal for any company is to maximize profitability.

Capital structure has a crucial role to play in determining a financial performance and fulfills the expectations of stakeholders who always demand the increase of their value. Goyal (2013) argued that, “capital structure decisions are critical for any company for maximizing return to the

various stakeholders and also enhance the ability to operate in a competitive environment". Moreover, Awunyo & Badu (2012) stated that "even though generally companies have a choice on how to combine debt and equity, managers attempt to ascertain a particular combination that will maximize profitability and market value".

Ross (2002) also showed the importance of capital structure decisions to finance managers by stating that, "finance managers try to find the capital structure that maximizes the value of the company". His argument shows that capital structure decisions are one of the crucial decisions that help to maximize company value.

The idea of relating capital structure and its value started since the establishment of irrelevant theory of capital structure by Modigliani and Miller in 1958. This theory was cited by Toraman (2013) which stated that, "company value is independent of its capital structure". In recent years, researchers come up with different perspectives of their studies; some revealed the positive relationship between capital structure and company profit while others revealed the negative relationship between the variables. Safiuddin (2015) and Adesina (2015) in their study results, they found that capital structure was strongly associated with performance. Narayanasary (2015) and Mwangi (2013) concluded a negative relationship between capital structure and company profitability. Because of the controversial results revealed by previous researchers, that situation provided an opportunity for a researcher to add the knowledge by analyzing the effect of capital on profitability of listed manufacturing companies in Tanzania. The results obtained were compared with the tradeoff theory of capital structure. Researcher revealed mixed results; positive relationship between the variables which was consistent with the tradeoff theory and negative relationship which was not consistent with the tradeoff theory.

Since most researchers in Tanzania managed to find the relationship between capital structure and commercial bank performance, this study was based on measuring the relationship between capital structure and profitability of listed manufacturing companies. Kipesha (2014) and Kaaya

(2013) conducted the study on the relationship between commercial bank performance and capital structure in Tanzania. There are several researchers who analyzed the effect of capital structure on company performance in developed countries. However, empirical studies on the impact of capital structure on company performance in developing countries especially in Tanzania are very little. This study filled the gap and added new knowledge by analyzing such a relationship here in Tanzania.

1.2 Problem Statement

Generally, every company has its own policy in determining capital structure for operating business activities. Some of the business use only equity capital some use only debt capital and some combine both equity and debt capital. Therefore, determination of the capital structure largely depends upon the company policy and cost of capital. Most of the companies make low cost capital structure. As underdeveloped country, Nepal has many manufacturing companies established and yet few are running and majority closed down. There is no doubt that they need to seek for long term profits and be transparent in their strategy, policy and management so as to contribute more to country's GDP.

This study tests the effect of capital structure on the profitability of the Nepalese manufacturing companies that are listed in Nepal stock exchange. The study findings suggest that capital structure positively influences, in a significant way, on the profitability of listed manufacturing companies in Nepal. Furthermore, profitability, and assets (company-size) have been found to be negatively influencing the capital structure of the listed companies. These findings generally concur with the predictions of the pecking order theory and the signaling effects of capital structure decisions of companies. The concerned companies must have to enhance their company size that negatively correlates with ROE, its growth and continuity.

(i) What is the impact of debt to total assets ratio on return on equity, return on assets and net profit?

(ii) What is the effect of debt to total equity ratio on return on equity, return on assets and net profit?

1.3 Objectives of the Study

This study provides evidence on capital structure alternative by using a manufacturing Nepalese data. Where the way in which capital structure is managed by companies will have a significant effect on the profitability of a company, therefore, the main objective of this study is to analyze the capital structure management of the selected organizations. The specific objectives of the study are pointed out as under:

(i) To find out the impact of debt to total assets ratio on return on equity, return on assets and net profit.

(ii) To find out the effect of debt to total equity ratio on return on equity, return on assets, net profit.

1.4 Research Hypothesis

The study mentions the following three hypotheses mainly.

$H0_1$: There is significant relationship between total debt to total assets and return on equity (ROE)

$H0_2$: There is significant relationship between total debt to total assets and net profit (NP)

$H0_3$: There is significant relationship between total debt to total assets and return on assets (ROA)

$H0_4$: There is significant relationship between total debt to total equity and return on equity (ROE)

$H0_5$: There is significant relationship between total debt to total equity and return on net profit (NP)

$H0_6$: There is significant relationship between total debt to total equity and return on assets (ROA)

1.5 Significance of the Study

The final results of this research will provide financial guidance to entrepreneur, business consultants and stakeholder with the necessary techniques of combining debt and equity and will be able to increase company performance. This study will also help decision makers especially finance managers and policy planners of both public and private sector enterprises to formulate better policy decisions in respect of the combination of debt and equity capital and therefore increase shareholders value and reduce cost of capital. This study will be used by investors and other stakeholder with the intention of investing to analyze the companies and see what kind of combination of capital structure generates huge profit for the company. This research will help finance managers and other finance officers in public listed companies to advice on their management about the best source of finance which helps to generate more profitability of the company. Investors and other company stakeholders after reading this research will be able to know the profitability and capital structure indicators of the companies in which they would like to invest and acquire returns in terms of dividends or capital gains.

1.6 Limitations of the Study

In this particular study the descriptive and co-relational statistical tools have only been used for data analysis. Not only that but also, regression analysis has also been considered for authentic outcome as per dependent and independent variables. Moreover, in order to reach significant or insignificant results for hypothesis used for this study t-test has been particularly used with 95 percent confidence level with two degrees of freedom. Under descriptive statistics Skewness and kurtosis statistical tools have been ignored in this study. With reference to sampling technique the convenience sampling technique has been used as the data have been derived for the official website of NEPSE.

This study is based on secondary data therefore reliability of conclusion of the study is based on the accuracy of secondary data. Study period is included from year 2075 to 2079 of selected manufacturing Information and the conclusion is drawn from the period under study. Certain limitations do exist in this study. In Nepalese context, the data problem is very acute. Necessary data may not be available due to business secrecy and only audited data were used. Data may be taken from a audited annual reports and it has its own limitations, thus, the competitive nature of any organization may prevent the revaluation of any confidential details.

Therefore, it is only rearrangement of data given in financial statements. Analysis and discussions are based on the available data and the knowledge of the selected company.

CHAPTER II

LITERATURE REVIEW

2.1 Conceptual Review

A literature review is a comprehensive summary of previous research on a topic. The literature review surveys articles, books and others sources relevant to a particular area of research. The review should enumerate, describe, summarize, objectively evaluated and clarify this previous research. It should give a theoretical base for the research and help you (the author) determine the nature of your research. The literature review acknowledges the work of previous researchers, and in so doing, assures the reader that your work has been well conceived. It is assumed that by mentioning a previous work in the field of study that the author has read, evaluated and assimilated that work into the work at hand. In order to find the impact of capital structure on the profitability of a firm, a lot of research has been undertaken so for by various researchers all over the world. The review of some of the major studies has been undertaken so as to develop a clear understanding about the relationship between capital structure and profitability. The review of such major studies is as follows:

Chiang et al. (2002) undertook a study and the findings of the study put forth that profitability and capital structure are interrelated; the study sample includes 35 companies listed in Hong Kong Stock Exchange. Abor (2005) investigates the relationship between capital structure and profitability of listed firms on the Ghana Stock Exchange and finds a significantly positive relation between the ratio of short-term debt to total assets and ROE and negative relationship between the ratio of long-term debt to total assets and ROE.

Gill et al. (2011) seeks to extend Abor's (2005) findings regarding the effect of capital structure on profitability by examining the effect of capital structure on profitability of the American service and manufacturing firms. The Empirical results of the study show a positive relationship between short-term debt to total assets and profitability and between total debt to total assets and profitability in the service industry. The findings of this paper also show a positive relationship between short-term debt to total assets and profitability, long-term debt to total assets and profitability, and between total debt to total assets and profitability in the manufacturing industry.

2.2.1 Capital Structure

Capital structure is how a firm would be able to fund its future investments projects via debt, equity or mixed. Capital structure was also defined by Roshan (2009) as a mix of debt and equity capital maintained by a firm. There is a sign of stability about the meaning of capital structure if the newest definition by Narayasanary (2015) is compared with the older definition by Roshan (2009) because both of them consider a mix of debt and equity capital which form a company capital structure.

2.2.2 Company Profitability

This is an outcome or result of company business operations. That company result is the difference between the company revenue and expenditure. Burja (2011) defined company profit or performance as the direct result of managing various economic resources and of their efficient use within operational, investment and financing activities. In this study, company profit was a dependent variable measured by Return on equity and return on asset.

2.2.3 Components of Financial Statements

In this study, researcher described two types of financial statements as a guide for data collection purpose from listed manufacturing companies. Those financial statements were balance sheet and income statement.

2.2.4 Balance Sheet

Pandey (2010) defined balance sheet and income statement of a company as follows. He defined balance sheet as a statement that indicates the financial condition or the state of affairs of a business at a particular moment in time. To provide more clarification on this, balance sheet consists of information about resources (assets) and company obligations (liabilities) and owners funds (equity) at a particular point of time. Normally balance sheet prepared at a particular date reveal the firm's financial position at that specific date.

Moreover, Pandey (2010) defined company assets as the valuable economic resources owned by the firm which are divided into current and noncurrent assets. Current assets are short term in nature while noncurrent assets are long term in nature. Liabilities represent debts payable in the future by the company to its creditors. They are divided into current and long term liabilities;

where current liabilities are debts payable within an accounting period while long term liabilities are the obligations in period longer than one accounting period. Another part of balance sheet is owners' equity which is the capital contributed by shareholders of the company. Owner's equity according to Pandey (2010) is divided into two parts, “paid up share capital and reserves (retained earnings)”. Paid up capital is the amount of funds directly contributed by the shareholders through purchase of shares while reserves or retained earnings are undistributed profits?

2.2.5 Profit and Loss Account

Pandey (2010) defined profit and loss account as a score board of the firm's performance during a period of time. Since the profit and loss account reflects the results of operations for a period of time, it is a flow statement. Profit and loss account represents the summary of revenues, expenses and net income or net loss of a company, and net income is the difference between company revenues and expenses at a particular financial year.

2.2.6 Capital Structure Ratios

Capital structure ratios as represented by leverage ratios indicate the proportion of debt and equity in financing the firm's assets (Pandey, 2010). To judge the long term financial position of a firm, financial leverage or capital structure ratios are calculated. These ratios indicate a mix of funds provided by owners and lenders. As a general rule, there should be an appropriate mix of debt and owners' equity in financing the firm's assets. The use of debt magnifies the shareholders earnings as well as increases their risk. Creditors treat the Owner's equity as a margin of safety that is if the equity base is thin, then creditors risk will be high.

2.2.7 Debt Ratios

According to Pandey (2010) debt ratio normally used to analyze the long term solvency of a firm. The firm may be interested in knowing the proportion of the interest-bearing debt in the capital structure. Debt to equity ratio is the relationship describing the lenders contribution to the company. Chandy (2012) defined debt to equity ratio as the financing of total assets of a business concern done by Owner's equity (also known as internal equity) as well as outside debts (known as external equity). How much fund has been provided by the owners and how much by outsiders in the acquisition of total assets is a very significant factor affecting the long term

solvency position of a firm. In other words, the relationship between borrowed funds and owners capital is a popular measure of the long term financial solvency of the company.

2.2.8 Factors Determining Capital Structure

Different previous studies have been indicating either negative or positive influence on firms leverage ratio. Factors like firms profitability, tangibility of assets, company growth and size are said to affect firm leverage .The International Journal of Business Management and Technology, Volume 3 Issue(6 November–December 2019) Profitable firms or enterprises attracts debt financing because of their ability to meet the all obligations of the company, companies with large division of tangible asset have the chance of attracting more investors because noncurrent assets acts as collateral for loan repayment purpose.

In terms of company size, bigger firms are more diversified and the chance for them to become bankruptcy is less hence attracts more financiers. Narayanasary (2015) measured the determinants of capital structure using leverage as dependent variable against profitability, tangibility, growth, size and non-debt tax shield as independent variables.

2.2.9 Profitability Ratios

Pandy (2012) defined profitability ratio as a measure of the operating efficiency and performance of the company. Users of financial statements like management, shareholders, suppliers and customers are interested with performance ratios because they help them to judge the company performance. Shareholders require profitability information because help them to judge the survival of the company in which they have invested. Creditors of the company want to get interest and repayment of principal regularly. Moreover, for owners of the company a good profitability ratio assure them to acquire a huge required rate of return.

2.2.10 Return on Asset

This is the ratio showing the contribution of firm's assets on profitability of the firms. The greater the ratio the greater the firm's performance contributed by company assets of that firm's.

2.2.11 Return on Equity

This is the contribution of shareholders fund (equity) in generation of company profit. It is a ratio of company profit to shareholders fund. The greater the ratio the greater the performance of a company generated by equity.

2.2.12 Traditional Model of Capital Structure

Under this, the value of the company is affected in the way it is financed. According to this model, change in capital structure directly affects the firm's market Value. Optimal capital structure exists at the point where weighted average cost of capital is minimized. Under this model the value of the company and its capital structure are related.

According to Frentzel (2013) with his study on capital structure theory since Modigliani and Miller, stated that "the traditional view of capital structure assume that there is a specific optimal gearing level that eventually minimizes the cost of capital and maximizes the value of the firm and shareholders wealth"

2.2.13 Modigliani and Miller theory of capital structure

These are the earlier theories of capital structure explaining the effect of capital structure on the value of the firms. The first theory discovered by Modigliani and Miller in 1958 and their second theory which corrected the first theory was in 1963. This theory as cited by Sharma, K. (2014) explained MMI and MMII as follows. The capital structure decision is critical for the existence of any business organization as to the maximization of returns to shareholders in the current business environment although Modigliani and Miller theory has a weakness if compared with the current business environment.

2.2.14 Modigliani and Miller (MMI)-1958

Founders in this theory concluded that the value of the firm is self-determining of capital structure and that the value of ungeared firm is equal to value of geared firm. Their research based on MMI model without and with taxes. Under MMI without taxes, this theory is also called capital structure irrelevancy theory, which means that in capital market without taxes, value of the firm is not related to its capital structure.

The argument is that the value of the firm depends on firms earning and risk of its assets not its capital structure which means Value of geared firm is equal to the value of ungeared firm. Their argument is represented by the following equation where Vg is the value of geared firm, Vu is the value of a ungeared firm, EBIT is the earnings before interest and tax, Ko is the overall cost of capital and Ku cost of ungeared firm. MMI with taxes states that the value of a geared firm is greater than that of an ungeared firm because of the tax advantage or debt tax shield achieved from the interest expense deducted before taxable income of a company.

2.2.15 Trade off Theory of Capital Structure

According to Modigliani and Miller (1963), cited by Sharma (2014), they argued that, "trade off theory created a benefit for debt in that it served to shield earning from taxes". This theory states that, there is an advantage for corporations to be financed with debt because of the balance between the tax benefits gained by corporations and costs of bankruptcy due to the risk of taking more debts. The tax benefit occurs because of the interest deducted from before interest and tax earnings (EBIT), which brings about tax advantage because taxable income becomes less and hence less corporate tax payment for the company.

2.2.16 Pecking Order Theory

Pecking order theory as cited by Nicola and Myers (1984), states that "companies priorities their sources of financing, first preferring internal financing, then debt, lastly equity as a last resort. They also came up with a conclusion by giving out the reason for treating equity financing as a last resort. They said that, „when managers issue new equity, investors believe that managers think that the firm is overvalued and managers think that the firm is overvalued and managers are taking advantage of this overvaluation. As a result, investors place a lower value to the new equity issuance."

Internal financing is mostly suggested by this theory because it is less costly as compared with external financing of debt and equity, debt finance increases cost to the firm in terms of interest expense while equity finance gives out firms authority. Siro (2013) argued that firms would prefer internal sources of finance as compared to expensive or costly external finance and therefore profitable firms that generate earnings are expected to use less debt than those that do not generate earnings.

2.2.17 Agency Cost Theory

Agency theory states that leverage companies are better for their shareholders because debt level can be used as a monitoring tool for managers hence maximize company performance by lowering agency costs. Kajola (2010) as cited by Odita and Osuji (2012) with their study on the impact of capital structure on financial performance in Nigerian, supported the argument by stating that, higher leverage is expected to lower agency costs, reduce inefficiency and lead to improvement in a firm's performance.

Several studies examined the agency cost as one of the determinants of capital structure in nonfinancial companies such as the study of Jensen and Meckling (1976) who find the possible conflict between owners and managers that results in an increasing agency cost. A vast literature on such agency cost theoretic explanation of capital structure has developed such as Harris and Rajiv (1991) and Myers (2001). Some studies incorporated debt in capital structure in terms of tax advantage of debt (Miller 1977). While Antoniou et al. (2002) found mixed results when they used data from European countries in their study. Some others used debt as a signal for quality companies' management, Leland and Pyle 1976 and Ross 1977, while others used debt as an anti-takeover device Harris and Rajiv (1990).

Stutz (1990) like Jensen believes that debt payment decreases cash flows available for managers. But, on the other hand, he states that this decrease will decrease the opportunities of profitable investing. Thus, companies with less debt have more opportunities for investment and in comparison with other active companies in industry, have more liquidity. Additional costs of debt include potential bankruptcy costs, and agency costs associated with the monitoring of investments by bondholders. Costs and benefits of alternate financial sources are “traded off” until the marginal cost of equity equals the marginal cost of debt, yielding the optimal capital structure, and maximizing the value of the company.

The alternative theory, discussed by Meyers (1984) and Fama and French (2002), describes a debt position as the accumulated outcome of past investment and capital decisions. In this theory, commonly called the “Pecking Order” theory, companies 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 financial structure is the outcome of past cash flows and investment opportunities. The conflict between benefits of shareholders 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).

Dimitrov and Jain (2003) with operational performance of companies proposed another theory. They argued that if managers have access to private information about becoming worse in future operational performance they will be increased debt. Thus, increasing the leverage is a negative sign and demonstrates poor forward performance. While, Rajan & Zing ales (1995) argue that larger companies tend to disclose more information to outside investors than smaller ones. Overall, larger companies with less asymmetric information problems should tend to have more equity than debt and thus have lower leverage. However, larger companies are often more diversified and have more stable cash flow; the probability of bankruptcy for large companies is smaller compared with smaller ones. Abor (2005) investigated the relationship between capital structure and profitability of listed companies on Ghana Stock Exchange for five years. He applied regression to estimate functions related to return on equity (ROE) with measure to capital structure. The results of the study reveal a significantly positive relation between the ratio of short-term debt to total assets and ROE was found. Also there is significant positive association between the ratio of total debt to total assets and return on equity. The study suggested that profitable companies depend more on debt as their main financing option.

Zeitun & Tian (2007) experienced that financial leverage is negatively related to both market performance measures and accounting measures but one of the variables of market performance is PE ratio shows an insignificant effect, while other variables of the study were Tobin's Q, market value of equity to book value, ROE, ROA. Another similar research related to Egypt is studied by (Ebaid, 2009) who empirically investigated the impact of capital structure choice on company performance. It applied multiple regression analysis in his study so as to estimate the relation between the leverage level and the performance. Three accounting based measures of financial performance i.e. return on equity, return on assets, and gross profit margin

were used by the study and based on a sample of non-financial Egyptian listed companies for the period (1997-2005), the results reveal that capital structure choice decision, in general terms, has a weak-to-no impact on the performance.

A research study related to Iranian companies was done by Salehi and Biglar (2009) that studied the issue of whether the capital-structure decision impacts companies performance? Where they used three definitions of capital structure in scope of book value to market value and five measures were assumed for financial performance. They applied the data of 117 corporations in Tehran Stock Exchange for the period from 2002 to 2007.Results of their study demonstrated that capital structure influences financial performance. The significance of the influence of capital structure on performance respectively belongs to measures of adjusted value, market value and book value.

Gill (2011) followed the path of Arbor's (2005) findings regarding the effect of capital structure on profitability by examining the effect of capital structure on profitability of the American service and manufacturing companies. They have used a sample of 272 American companies listed on New York Stock Exchange for the years (2005-2007). They applied correlations and regression analyses to estimate the functions relating to profitability that were measured by return on equity with measures of capital structure. Empirical results show a positive relationship between debt to total assets and profitability and between total debt to total assets and profitability in the service industry. Also, the findings of their study show a positive relationship between debt to total assets and profitability in the short-run, long-term debt to total assets and profitability and between total debt to total assets and profitability in the manufacturing industry.

While, Ting and Lean (2011) studied the cross-sectional variation in leverage among publicly listed government-linked companies and non-government-linked companies in Malaysia for the period from 1997 to 2008. Their study applied balanced panel data with multivariate regression as the method of analysis. The results reveal that the government-linked companies are consistently more heavily leveraged than non-government-linked companies. The findings indicate a significantly positive association between debt ratio and tangible assets but a negative relationship between debt ratio and profitability for both government-linked and non government-

linked companies. However, company size is significantly negatively related to debt ratio for government-linked companies and significantly positively related to debt ratio for non-government-linked companies. The study also finds that tangible assets and profitability have an inverse relationship with long-term debt. Therefore, a significant negative association between asset structure, profitability and short-term debt is found. However, company growth and cash flow have no influence on the determination of short-term and long-term debt.

2.2 Review of previous Studies

A number of studies has been conducted in ten various aspects of capital structure in Nepal.

They are reviewed here under.

Milton & Arthur (1991) summarized the theories of capital structure, related to the known empirical evidence, and suggested promising avenues for future research. First they focus the theory of capital structure, second they arbitrarily exclude theories based primarily on tax consideration. Third they systematically exclude certain topics that, while related to capital structure theory does not have this theory as their control focus. In short, they concentrated on non-tax-drives capital structure theory. They have identified four categories of determinants of capital structure. These are the desire to:

(i) Rectify conflicts of interest among various groups with claims to the firm's resources, including managers.

(ii) Convey private information to capital market or mitigate adverse selection effects, in the product/ input market or,

(iii) Affect the outcomes of corporate control contests.

According to them, each of these four categories is discussed in a separate section. The plan of their studies is as follows. In section I they discussed models based on agency cost. Models using asymmetric information are considered in section II Interaction of capital structure with behavior in the product or inputs markets or with characteristics of product or inputs are taken up in section III Section IV surveys models based on corporate control consideration. In section V, they summarize the theoretical results and compare them with evidence. At last their conclusions are presented in section VI. They have concluded on their studies that the theories surveyed.

dentified a great many potential determinants of capital structure in addition to taxes). That means various variables affect the capital structure (Harris and Revive, 1991).

Weston, Besly and Brigham's (1996) study on capital structure theory has been developed along with two main line: (1) tax benefit bankruptcy cost trade-off theory and (2) signaling theory, they said that each firm has an optimal capital structure, defined as that mix of debt, preferred stock and common equity which minimize its weighted average cost of capital (Weston, Scott & Bringham 1996).

Pandey (1998) the professor of Indian institute of management, Ahmedabad had also studied capital structure. It's found that, under favorable economic conditions, the earning per share increases with leverage. But leverage also increases the financial risk of shareholders. As a result, it cannot be stated definitely whether or not the value of the firm will increase with leverage. Further he has said if the value of the firm can be affected by capital structure which maximizes the market value of the firm. Pandey further added there is existence of conflicting theories on the relationship between capital structures: Pandey has argued that the capital structure decision of the firm can be characterized as a choice of that combination of debt and equity, which maximize the market value of the firm. He has supported to traditional approach the cost of equity declines with leverage at an acceptable range of debt and then starts to increase with increasing debt in capital.

James Horne (1999), has also presented controversial decision about capital structure. It's found that, financial signaling occurs when capital structure changes convey information to security holders. It assumes symmetric information between management and stock holders. Management behavior results in debt issue being regarded as good news by investors and stock issues as bad news.

Garvin Cassar (2003) published an article entitled "capital structure and financing of SMEs and is the evidence of Australia". The article is about the investigation of determinants of capital structure and use of financing for small and medium sized enterprises. This paper investigates the determinants of capital structure and the use of development to explain capital structure. With

empirical evidence based upon large listed firms tending to support these theories. Institutional differences in the types of financial organizations, their pre-dominance and the traditional markets they serve, vary the way investment and capitals are allocated. For example, different investor groups may use investor groups, the allocation decisions may differ due to regulation.

Toru and Philip (2005) published an article entitled "The effects of ownership and capital structure on board composition and strategic diversification in Japanese corporations" investigates the relationships between ownership and board structure with the diversification strategy of large Japanese firms. The results show that corporate nominee directors are associated with lower product diversification of their invested firms. This suggests that nominee directors in large Japanese corporations see themselves representing specific interests and therefore investors should pay attention to board composition in order to assess the level of protection they can expect to reserve. Even without any apparent agency problem with management, there remains a potential principal- principal".

Miglo (2010) with his study was about the implications of pecking order theory, trade off theory, signaling and market timing theory by listed firms. His empirical evidence confirmed that under trade off theory, the leverage of firms was inversely related to the expected bankruptcy costs. The implication on pecking order theory showed that there was a negative correlation between debt and profitability of the firms. Since the implication of two theories of trade off and pecking order theory are mostly related with the proposed study, then the researcher used the correlation results to approve or disapprove theories with the real behavior within the public listed companies in Tanzania.

The study by Naidu (2011) in South African companies his findings suggested that an increase in the usage of debt by a bank has some effect of increasing the profitability of that bank but it was not the sole determinant of an increase in profitability. The findings were significant as it supported the MMII where a firm can increase its value by increasing its use of cheaper debt finance. The results of his study supports Modigliani and Miller theory II that debt finance is the best approach that influences the increase of the firm's value. The proposed study will reveal the truth of this argument after the final analysis on the relation between the capital structure and

profit of Tanzania Listed companies. The other empirical studies based on capital structure have either supported or not supported the earlier capital structure theories of Irrelevance theory by Modigliani and Miller, Pecking order theories and trade off theories. Bundala (2012), on his study on investigating whether Tanzania Listed companies practice Pecking Order Theory, Agency cost theory or Trade off theory. His results of the study revealed that there is a little support for Pecking Order Theory that predicts significant positive slopes for growth rate, liquidity, dividend payout and asset tangibility variables and negative significant slope for profitability variables. These results show that there is a need to prove this relationship in the Tanzanian environment.

Mihael (2012) in listed firms in Romania, his results indicate that there was a contradiction as they delivered both in favor of the positive correlation and in favor of negative correlation between the capital structure and firm's performance. Due to this conclusion, it was not clear whether capital structure influenced performance or not, for that case the further study on this relationship has to be conducted.

Abbasali (2012) in Tehran used Pearson correlation and multiple regression models to test the relationship between independent variables of debt ratios against dependent variables of return on asset (ROA) and return on equity (ROE). Researchers also used controlling variables of asset turnover, firm size, and asset tangibility and growth opportunity as other independent variables of the study. The results of the study indicated a negative relationship between debt ratio and financial performance. Also, results indicated a significant positive relationship between asset turnover, firm size, and asset tangibility and growth opportunity with financial performance measures.

Another analysis was conducted by Pouraghan (2012) who measured Iran companies using Pearson correlations and estimation of multiple regressions models to test independent variables of Debt ratios and controlling variables of firm size, firm age, asset tangibility and growth opportunities against dependent variables of return on assets and return on equity. He then discovered a strong negative relationship between debt ratios and performance measures. Moreover, researchers discovered a positive relationship between controlling variables and performance variables of the companies.

Jaffna (2013) analyzed the impact of capital structure on financial performance of the listed trading companies in Sri Lanka. He used companies data listed in Sri-lanka stock exchange during 2006 to 2010 and came up with the following results. He used correlation analysis and revealed that debt asset ratio and debt equity ratio correlated with gross profit margin, net profit margin, ROCE, ROA and ROE at significant levels of 0.05 and 0.1 Finally their results concluded a positive relationship between capital structure and financial performance.

Other empirical studies have shown mixed results where some study variables show negative relationships while others reveal the positive relationship. Goyal (2013) with his study on listed public sector banks in India, tested the study variables using regression analysis. The results of his study validated a strong positive dependence of short term debt to capital with all profitability measures of ROA, ROE and EPS while long term debt to capital and total debt to capital had a negative relationship with return on assets (ROA), return on equity (ROE) and Earning per share (EPS).

Kipesha (2021) with his study on commercial banks in Tanzania used fixed effect regression models with the help Housman test to measure the relationship between capital structure and banks performance. His results indicated the presence of significant negative relationship between total debt to equity and long term debt to equity with bank cost efficiency and return on equity, something which implies the presence of negative tradeoff between firm leverage and firm performance. The same study indicated a causality relationship between firm leverage and return on asset.

Rahman, Sarker & Uddin (2022) explores the impact of capital structure on the profitability of publicly traded manufacturing firms in Bangladesh. In this paper, we applied the fixed effect regression to find out the correlation among independent variables (debt ratio, equity ratio and debt to equity ratio) and dependent variables (return on asset, return on equity and earnings per share). A sample of 50 observations of selected 10 manufacturing companies listed in Dhaka Stock Exchange has been analyzed over the period of 2013 to 2017. This research reveals that the debt ratio and equity ratio have a significant positive impact but debt to equity ratio has a significant negative impact on ROA. This paper also exposes that, equity ratio has a significant

positive impact but debt to equity ratio has a significant negative impact on ROE. Finally, debt and equity ratio has a significant negative impact on EPS. Findings of this research will help the listed manufacturing companies to maintain an optimum capital structure which will lead to the maximization of stockholders wealth.

2.2.1 Review in Nepalese Context

Shrestha (1985) his study on "analysis of capital structure in selected public enterprises' ' argue that most public enterprises have confusing capital structure since the corporations are not guided by any objective based financial plan and policies. The corporations are using the least combination of debt with equity to avoid financial burden as far as possible. According to Mr. Shrestha, the debt-equity ratio should neither be highly levered to create too much financial obligations that lie beyond capacity to meet nor should be much lower low levered to infuse operational strategy to bypass responsibilities without performance. It used ratio analysis as the tool of analysis and found the selected public enterprises. It further added that in many instances aphorism becomes the basis of capital structure and most of them want to eliminate debt if possible to relieve financial obligations.

Aryal (2011) in his dissertation on An Evaluation of capital structure of bottlers Nepal limited that the company does not have proper balance between debt and equity, he further suggested that the company must raise fund by equity capital because the risk can diverted, however, he made his analysis for five years period and he found that the company has to follow good policy to set the capital structure of the company.

Kafle (2012) has conducted research on a comparative Analysis of capital structure between Lumbini sugar Factory Limited ND Birgunj sugars Factory Limited. It's found that both the companies were facing serious deterioration in earnings according to the net operating income approach. He noted down both the companies had defective capital structure as debt equity ratio were not so much satisfactory, Birgunj sugar Mills had low debt equity ratio. Which indicates access power of equity holders? And both the companies were unable to pay interest because they were operating at loss. As Birgunj sugar Factory was highly levered Lumbini sugar factory was unlived both the companies had defective capital structure. Mr. Kafle suggested that it

should change the debt equity ratio for sound capital structure management to maintain it in 1.1 ratios.

Shrestha (2013) in his analysis of capital structure in selected public enterprises has focused on providing the conceptual base and the determinants of capital structure analyzing the capital structure of selected public enterprises and suggested the possible measure to overcome the capital structure problems. He has calculated the cost of equity and weighted average cost of capital taking into consideration the net operating income approach respectively. The capitalization rate and EBIT were found very poor and inconsistent. He also used the various ratios and the analysis of capital structure and found a very imbalanced capital structure. In this study, he found that neither there exists proper determinants nor standards are developed to justify the appropriate capital structure. So, he argues that the public enterprises are following capital structure and neither government nor public enterprises themselves are serious for the use of appropriate capital structure. Interest obligation seems to be a financial burden to the existing public enterprises to maintain an optimal capital structure because there is no reliable basis to ensure sound capital structure. Shrestha concludes that the selected public enterprises under study have a very confusing capital structure. Since the corporation is not guided by objective based financial plans and policies. Finally, he suggested that the debt-equity ratio should neither be highly levered to create too much financial obligation that lies beyond capacity to meet nor should it be much low levered to infused operational lethargy to bypass responsibilities without performance.

Baidhay (2014) has conducted research on capital structure of manufacturing companies in NEPSE suggesting that the company should increase the equity proportion in financing its assets to be in the safe mode against liquidation and the company should try to streamline their sales. BNL and NLL should try to access a longer source of debt which will be less costly for them rather than relying on short term loans.

Bhattarai (2015) in her research titled "capital structure of manufacturing companies in Nepal", she has conducted that companies do not always plan capital structure and it develops as a result of the financial decisions taken be the financial manager without any formal planning. Moreover some industries even could not meet the interest and other expenses from the income. So they

increase loan and become more levered. It is suggested that increasing the profitability of the company by reducing the burden of interest on debt. The study recommends having the optimal capital structure. Hence, the excessive use of debt should be gradually curtailed in the coming year because the companies have no earning capacities to meet the interest burden.

Table No. 1: The major findings of some previous studies.

Study	**Major Findings**
Abor (2005)	The relationship between capital structure and profitability of listed firms on the Ghana Stock Exchange and find a significantly positive relation between the ratio of short-term debt to total assets and ROE and negative relationship between the ratio of long-term debt to total assets and ROE.
Gill et al. (2011)	The Empirical results of the study show a positive relationship between short-term debt to total assets and profitability and between total debt to total assets and profitability in the service industry. The findings of this paper also show a positive relationship between short-term debt to total assets and profitability, long-term debt to total assets and profitability, and between total debt to total assets and profitability in the manufacturing industry.
Chiang et al. (2002)	Undertake a study and the findings of the study put forth that profitability and capital structure are interrelated; the study sample includes 35 companies listed in Hong Kong Stock Exchange.
Roshan (2009)	Capital structure was also defined by Roshan (2009) as a mix of debt and equity capital maintained by a firm.
Burja (2011)	Burja (2011) defined company profit or performance as the direct result of managing various economic

	resources and of their efficient use within operational, investment and financing activities. In this study, company profit was a dependent variable measured by Return on equity and return on asset.
Pandey (2010).	Capital structure ratios as represented by leverage ratios indicate the proportion of debt and equity in financing the firm's assets, Pandey (2010).
Narayanasary (2015)	The study revealed the positive impact of firm's profitability, firm's growth, size and non-debt tax shield on firms leverage while only tangibility of assets showed negative relationships.
Frentzel (2013)	The study specifies optimal gearing level that eventually minimizes the cost of capital and maximizes the value of the firm and shareholders wealth"
Siro (2013)	Profitable firms that generate earnings are expected to use less debt than those that do not generate Earnings.
Kajola (2010) , Odita and Osuji (2012)	Higher leverage is expected to lower agency costs, reduce inefficiency and lead to improvement in a Firm's performance.
Jenson (1976)	Demonstrates that high leverage leads to poor Performance.
Ebaid (2009)	This study empirically investigated the impact of Capital structure choice on company performance. It applied multiple regression analysis in his study so as to estimate the relation between the leverage level and the performance. Three accounting based measures of financial performance i.e. return on equity, return on assets, and gross profit margin were

	used by the study and based on a sample of non-financial Egyptian listed companies for the period (1997-2005), the results reveal that capital structure choice decision, in general terms, has a weak-to-no Impact on the performance.
Salehi and Biglar (2009)	Results of their study demonstrated that capital structure influences financial performance. The significance of the influence of capital structure on performance respectively is belonged to measures the adjusted value, market value and book value.
Gill (2011)	They applied correlations and regression analyses to estimate the functions relating to profitability that measured by return on equity with measures of capital structure. Empirical results show a positive relationship between debt to total assets and profitability and between total debt to total assets and profitability in the service industry. Also, the findings of their study show a positive relationship between debt to total assets and profitability in the short-run, long-term debt to total assets and profitability and between total debt to total assets and profitability in the manufacturing industry.
Ting and Lean (2011)	Their study applied balanced panel data with multivariate regression as the method of analysis. The results reveal that the government-linked companies are consistently more heavily leveraged than non-government-linked companies. The findings indicate a significantly positive association between debt ratio and tangible assets but a negative relationship between debt ratio and profitability for both government-linked and nongovernment- linked

	companies.
Miglo (2010)	The implication on pecking order theory showed that there was a negative correlation between debt and profitability of the firms. Since the implication of two theories of trade off and pecking order theory are mostly related with the proposed study, then the researcher used the correlation results to approve or disapprove theories with the real behavior within the public listed companies in Tanzania.
Naidu (2011)	The findings suggested that, an increase in the usage of debt by a bank has some effect of increasing the profitability of that bank but it was not the sole determinant of an increase in profitability. The findings were significant as it supported the MMII where a firm can increase its value by increasing its use of cheaper debt finance. The results of his study supports the Modigliani and Miller theory II that debt finance is the best approach that influence the increase of the firm's value.
Mihael (2012)	In listed firms in Romania, his results indicates that there was a contradictory as the delivered both in favor of the positive correlation and in favor of negative correlation between the capital structure and firm's performance. Due to this conclusion, it was not clear whether capital structure influenced performance or not, for that case the further study on this relationship has to be conducted.
Abbasali (2012)	Used Pearson correlation and multiple regression models to test the relationship between independent variables of debt ratios against dependent variables of return on asset (ROA) and return on equity (ROE).

	The results of the study indicated a negative relationship between debt ratio and financial performance. Also, results indicated a significant positive relationship between asset turnover, firm size, and asset tangibility and growth opportunity with financial performance measure.
Pouraghan (2012)	The study discovered strong negative relationship between debt ratios and performance measures and also discovered a positive relationship between controlling variables and performance variables of the companies.
Jaffna (2013)	used correlation analysis and revealed that debt asset ratio and debt equity ratio and correlated with gross profit margin, net profit margin, ROCE, ROA and ROE at significant level of 0.05 and 0.1 Finally their results concluded a positive relationship between capital structure and financial performance.
Goyal (2013)	The results of his study validated a strong positive dependence of short term debt to capital with all profitability measures of ROA, ROE and EPS while long term debt to capital and total debt to capital had a negative relationship with return on assets (ROA), return on equity (ROE) and Earning per share (EPS).
(Kipesha, 2014)	The same study indicated a causality relationship between firm leverage and return on assets.
Shrestha (1985)	It used ratio analysis as the tool of analysis and found the selected public enterprises. It further added that in many instances aphorism becomes the basis of capital structure and most of them want to eliminate debt if possible to relieve financial obligations.
Aryal (2011)	The capital structure of bottlers Nepal limited that the

	company does not have proper balance between debt and equity
Kafle (2012)	It's found that both the companies were facing serious deterioration in earnings according to the net operating income approach. He noted down both the companies had defective capital structure as debt The equity ratio was not very satisfactory.
Shrestha (2013)	He suggested that the debt-equity ratio should neither be highly levered to create too much financial obligation that lie beyond capacity to meet nor should it be much low levered to infused operational lethargy to bypass responsibilities without performance.
Bhattarai (2015)	The excessive use of debt should be gradually curtailed in the coming year because the companies have no earning capacities to meet the interest burden
Rahman, Sarker & Uddin (2019)	This research reveals that the debt ratio and equity ratio have a significant positive impact but debt to equity ratio has a significant negative impact on ROA. This paper also exposes that, equity ratio has a significant positive impact but debt to equity ratio has a significant negative impact on ROE.

2.3 Research Gap

In this particular study, convenience sampling technique, a non-probable sampling technique, has been considered with the period of 2073 to 2075 for data analysis however in previous study the 3 year period had not been taken over for data analysis. Moreover the methodology that has been used here has not been followed on previous studies. As per statistical tools descriptive and co-relational analyses have been conducted as well as with respect to financial only ratio analysis has used. The descriptive analysis deals with mean, standard deviation range along with standard error. Within inferential analysis correlation and regression analysis have been conducted for the purpose of understanding the nature and relationship between dependent and independent

variables. Moreover, hypothesis testing has been tested within 95 percent and 90 percent interval to conclude either the result is significant or insignificant. With regard to sample only two companies such as Nepal Lube Oil limited and Bottlers Nepal (Balaju) Limited have been sampled for this study which is not done by previous researcher.

CHAPTER III

METHODOLOGY

3.1 Research Design

This study has been designed on descriptive and co-relational research design. Quantitative analysis is used in this study to analyze data based on statistical techniques: descriptive statistics and paired sample t-tests and p-test. Descriptive statistics offers an essential summary of the sample of this study.

3.1.1 Descriptive Research Design

Descriptive Statistics were used to organize, summarize and display the research data in the particular study which consists of all the numerical values derived from the financial statements of selected companies. Descriptive research describes the features of the population or phenomenon that is going to be studied. This methodology focuses more on the “what” of the study topic (area) rather than the “why” of the study topic (area). In other words, descriptive research primarily focuses on describing the nature of a demographic section, without focusing on “why” a certain event occurs. Descriptive research also “describes” the subject of the study, without covering “why” it happens. To analyze the characteristics of the variables, means, maximum, minimum and standard deviations were produced using SPSS. Descriptive statistics were analyzed separately for each type of ratio.

3.1.2 Inferential Research Design

The inferential research design is basically used to analyze the characteristics of undertaken variables through correlation and regression analysis. It also deals with the testing of hypotheses. It is a type of non-experimental research method, where researcher measures two variables, understands and measures the statistical relationship between them with no influence from any extraneous variable. The measure of the correlation is represented by correlation coefficients. The coefficient gives both the direction and strength of the relationship between a pair of variables. In this particular study, the strength of association between all pairs of variables was statistically measured by Pearson's correlation coefficient. In statistics, Pearson's correlation coefficient measures linear correlation between two variables ranging from -1 to +1, where 1 is total positive correlation, 0 is no correlation and -1 is total negative correlation.

3.2 Population and Sample

As regard to the population and sample, 21 manufacturing industries have been considered as population, the Nepal Lube Oil Limited and Bottlers Nepal (Balaju) have been sampled for this study. Among the 21 listed manufacturing industries in Nepal. 10 companies have null transactions only 11 companies have contributed for manufacturing.

Table No. 2 The list of listed Manufacturing Companies in Nepal The following 10 companies whose transaction is null are as follows:

S.N	Company Name	Listed Shares	Paid up Value	Total Paid up
1	Arun Vanaspati Udhyog Limited	550,343	100.00	55,034,300.00
2	Birat Shoe Limited	165,000	100.00	16,500,000.00
3	Butwal Spinning Mills Limited	1,306,693	10000	130,669,300.00
4	Fleur Himalayan Limited	262,102	75.00	19,657,650.00
5	Gorakhkali Rubber Udhyog Limited	3,833,400	75.00	287,505,000.00
6	Harisiddhi Brick And Tiles Limited	18,650,000	10.00	186,500,000.00
7	Jyoti Sinning Mills Limited	1,270,288	100.00	127,028,800.00
8	Nepal Bitumin And Barrel Udhyog Limited	210,680	100.00	21,068,000.00
9	Nepal Khadya Udhyog Limited	90,000	100.00	9,000,000.00
10	Nepal Vanaspati Ghee Udhyog ltd.	101,250	100.00	10,125,000.00

The following 2 companies have been sampled for the study.

11	Bottlers Nepal (Balaju) Limited	1,948,887	100.00	194,888,700.00
12	Nepal Lube Oil Limited	244,723	100.00	24,472,300.00

Active companies for manufacturing other than Nepal Lube Oil Limited and bottlers Nepal (Balaju) limited.

13	Bottlers Nepal (Terai) Limited	1,210,000	100.00	121,000,000.00
14	Himalayan Distillery Limited	4,130,000	100.00	413,000,000.00
15	Raghupati Jute Mills Limited	1,806,966	100.00	180,696,600.00
16	Shree Ram Sugar Mills Limited	3,045,990	100.00	304,599,000.00
17	Shree Bhrikuti Pulp And Paper ltd.	3,500,000	100.00	350,000,000.00
18	Biratnagar Jute Mills Limited	68,750	160.00	11,000,000.00
19	Himgiri Textile Industries Limited	480,000	100.00	48,000,000.00
20	Unilever Nepal Limited	920,700	100.00	92,070,000.00
21	Morang Sugar Mills Limited	35,827	100.00	3,582,700.00

(Source: https://merolagani.com/CompanyList.aspx)

3.2.1 Sampling Technique

This sampling method has been followed up for this particular study as the secondary data of sampled manufacturing companies have been derived from official website of NPESE. Conveyance sampling is a type of sampling where the first available primary data source has been used for the research without additional requirements. In other words, this sampling method involves getting participants wherever you can find them and typically wherever is convenient. In convenience sampling no inclusion criteria identified prior to the selection of subjects. All subjects are invited to participate.

3.3 Types and Source of Data

Mainly, the financial statement such as Profit and loss statement and Balance sheet have been taken into consideration in this study. The source of data for this study has been used secondary considering the literature reviews and references used before on similar nature of study.

Moreover, the current year data of mentioned manufacturing companies focusing on Nepal Lube Oil Limited and Bottlers Nepal (Balaju) are also the source for effective results.

3.3.1 Secondary Data

Secondary data is research data that has been previously gathered and can be accessed by researchers. These data are different from primary data, which is data collected directly from its source. These data are used to increase the sampling size of research studies and is also chosen for the efficiency and speed that comes with using an already existing resource.

3.3.2. Financial Statements

Financial statements are reports prepared by a firm's management to present the financial performance and position at a point of time. Financial statements include a balance sheet, income statements, statement of Owner's equity, and statement of cash flows. These statements are prepared to give the information to stakeholders of the company, like investor's creditors and customers about the financial positions. Public companies are also required to present these statements along with other regulatory agencies in a timely manner.

Final summary report that shows how a company has used the funds entrusted to it by its shareholders and other investors and what is its current financial position. The three basic financial statements are

(I) Balance Sheet, which shows firm's assets, liabilities and net worth on a stated dated

(II) Income statement (also called profit & loss account), which shows how the net income of the firm is arrived at over a stated period.

(III) Cash flow statement, which shows the inflows and outflows of cash affected by the firm's activities during a given period.

3.4 Collection of Data

The secondary sources for the data are Articles, Literatures reviews, References studies, previous thesis writing, newspapers, Google etc. After the collection of data, the data has been converted to information after a series of steps. Data is the raw form of information. It may be in the form of sign, symbol and number or in other unstructured form. Data collection is the process of

gathering data from relevant and available sources which must be accurate, relevant and consistent.

This particular proposed study has been concentrated on quantitative data rather than qualitative data. These all data were collected from secondary sources.

3.5 Tools for Analysis Statistical and Financial

With respect to data analysis tools and techniques in this study descriptive statistic and co-relational statistics have been used to measure the variables that affect profitability of manufacturing Nepalese companies. It is concerned with the profitability of manufacturing companies. Under financial tools ratio analysis has been taken into the attention.

3.5.1. Statistical Tools

The study consists of major three statistical tools such as descriptive statistics, inferential statistics and regression analysis has been used for this study. They have been mentioned and described below.

(I) Descriptive Statistic

Descriptive statistics are brief descriptive coefficients that summarize a given data set, which can be either a representation of the entire or a sample of a population. Descriptive statistics are broken down into measures of central tendency and measures of variability (spread). Mean, standard deviation, range and standard error have been employed for the measurement of variables.

(II) Inferential Statistics

The inferential statistics has been undertaken for this study so as to analyze the characteristics of variables via correlation and regression. Not only is that but also for the purpose of hypothesis testing the inferential statistic much suitable tools.

(III) Regression Analysis

The regression equation for this study is undertaking dependent variable debt to equity (DER) and debt to assets ratio (DAR) along with independent variables return on equity (ROE), return on assets (ROA) and net profit (NP).

Models

The extension forms are:

Y1= Dependent Variable Return on Equity (ROE)

Y2 Dependent Variable Return on Assets (ROA)

Y3= Dependent Variable Net Profit (NP)

= Constant value

B1= Coefficient of variable x1

DARj= Debt to total assets ratio (DAR)

B2= Coefficient of variable x2

DERj= Debt to total equity ratio (DER)

ej=Error Terms

Here x1 and x2 are the independent variables.

3.5.2 Financial Tool

Financial Tool Ratio Analysis Tools: Ratio analysis is the comparison of line items in the business. Ratio analysis tools will be used to evaluate a number of issues with an entity, such as its operations. This type of analysis is particularly useful to analysts outside of a business, since their primary source of information about an organization is its financial statements. Ratio analysis is less useful to corporate insiders, who have better access to more detailed operational information about the organization. 1. Debt to Total Assets The debt to total assets ratio is an indicator of a financial leverage. It tells you the percentage of total assets that were financed by creditors. In other words, it is the total amount of a liabilities divided by the total amount of the assets.

3.5.3 Theoretical framework

From the above review of literature following theoretical framework has been developed.

Independent Variables	Dependent Variables

Debt to Total Assets Ratio	**Return on Equity ROE)**
	Return on Assets (ROA)
Debt to Total Equity Ratio	**Net Profit (NP)**

Figure No. 1 Theoretical framework

The both dependent and independent variables which will be in this particular study have been mentioned in the above diagram.

Dependent Variable

(i) Return on equity

(ii) Return on Assets

(iii) Net Profit

Independent Variables

(i) Debt to total assets

(ii) Debt to total equity ratio

CHAPTER IV

RESULTS

4.1 Data Presentation and Analysis

For data analysis purposes different statistical tools such as ratio analysis, correlation, central tendency and measure of dispersion have been used. This study has been designed on Descriptive and Co-relational Research Design. In this study Quantitative analysis is used to analyze data based on statistical methods: Descriptive statistic provides a critical summary of the sample of this study.

4.1.1 Ratio Analysis

Ratio analysis is the relationship of two and more items in the financial statement of any firm. Ratio analysis tools will be used to evaluate a number of issues with an entity, such as its operations. This type of analysis is particularly useful to analysts outside of a business, since their primary source of information about an organization is its financial statements. Ratio analysis is less useful to corporate insiders, who have better access to more detailed operational information about the organization.

Table No. 3
Ratio Analysis of Nepal Lube Oil Limited

Variables/Years	*2073*	*2074*	*2075*
Debt to equity ratio	3.3719	2.6576	2.5746
Debt to assets ratio	0.8178	0.7752	0.7668
Return on equity	0.3336	0.3443	0.2938
Return on assets	0.0809	0.1004	0.0875
Net profit margin	0.0538	0.0567	0.0516

(Source: Annual Report)

The table shows that the debt equity ratio is reasonably higher than its standard for the years 2073, 2074 and 2075 respectively. The optimal debt to equity ratio varies by industries, but generally it is considered that not be above the level of 2.0. Especially in 2073 debt equity ratio is high compared to other years. The ratios for the respective years are 3.3719, 2.6576 and

2.5746. A debt to equity ratio of more than 2 indicates the company derives more than two-thirds of its

capital financing from debt and one-third from shareholder equity. It means it has crossed standard of the 2.0. So the company has not maintained its debt to equity ratio as per the standard.

The debts to assets ratio of the company are 0.8178, 0.7752 and 0.7668 respectively for the year 2073, 2074 and 2075. The company has used more than 75 percentage of its debt for purchasing the assets. Return on equity for year 2073, 2074 and 2075 are 33.36, 34.43 and 29.38 percentages respectively. Which means the contribution of shareholder's funds for generating the profit for the company are 33.36, 34.43, and 29.38 percentages respectively in year 2073, 2074 and 2075.It is highest in the year 2074. The higher ratio of the return on equity is considered good for the company. Looking at the return on assets ratio the ratio for the year 2073, 2074 and 2075 are 0.0809, 0.1004, and 0.0875 respectively. This means the assets of the company have generated the profit of 8, 10 and 8.5 percent in respective years. In year 2074 the assets generated more profit compared to other years.

The net profit margin ratios of the company are 0.0538, 0.0567, and 0.0516 respectively for the year 2073, 2074, and 2075.The net profit margin ratio measures the operating efficiency of generating net income per rupees of sale. The higher net profit margin ratio is desirable for a firm. For trading firms, a 5 percent profit margin is generally considered good for the company.

Table No. 4
Ratio Analysis of Bottlers Nepal (Balaju) Limited

Variables/Years	*2073*	*2074*	*2075*
Debt to equity ratio	2.45	1.86	1.03
Debt to assets ratio	0.6999	0.6499	0.5062
Return on equity	0.2581	0.3065	0.3027
Return on assets	0.0749	0.1028	0.1495
Net profit margin	0.0678	0.0913	0.1145

(Source: Annual Report)

The year wise observation is table 4 shows that the highest debt equity ratio in year 2073 with 2.45 followed by the year 2074(1.86) and 2075(1.03). The optimal debt to equity ratio varies by industries, but it should not be above a level of 2.0. Especially in 2073 debt equity ratio is high.

The ratios for the respective years are 2.45, 1.86 and 1.03; a debt to equity ratio of less than 2 indicates the company derives more than two-thirds of its capital financing from shareholder equity and one-third from debt. It means it has crossed standard of the 2.0 in year 2073.So the company has maintained its debt to equity ratio as per the standard.

The debt to assets ratio of the company are0.6999, 0.6499 and 0.5062 respectively for the year 2073, 2074 and 2075.The Company has used more than 75 percent of its debt for purchasing the assets. Return on equity for year 2073, 2074 and 2075 are 33.36, 34.43 and 29.38 percentages respectively. Which means the contribution of shareholder's fund for generating the profit for the company are 33.36, 34.43, and 29.38 percentages respectively in year 2073, 2074 and 2075. In the year 2074 it is highest comparing to others years. The higher ratio of the return on equity is good for the company. Looking at the return on assets ratio the ratio for the year 2073, 2074 and 2075 are 0.0749, 0.1028, and 0.1495 respectively. This means the assets of the company have generated the profit of 7.5, 10 and 15 percentage in respective year. In year 2074 the assets generated more profit compared to last year again in year 2075 it increase by 5 percent which too good for the company .It means the company has utilized its assets properly and efficiently during the operation of the company.

The net profit margin ratios of the company are 0.0678, 0.0913, and 0.1145 respectively for the year 2073, 2074, and 2075.The net profit margin ratio measures the operating efficiency of generating net income per rupees of sale. The higher net profit margin ratio is desirable for a firm. For trading firms, a 5 percent profit margin may be good. Here the company has done tremendous work for increasing its profit margin ratio every year.

4.1.2 Descriptive Statistics

Descriptive analysis was conducted in order to assist and support the findings of empirical analysis. This section deals with the statistical tools such as range, mean, standard deviation and standard error for statistical measurement of considered variables for this particular study.

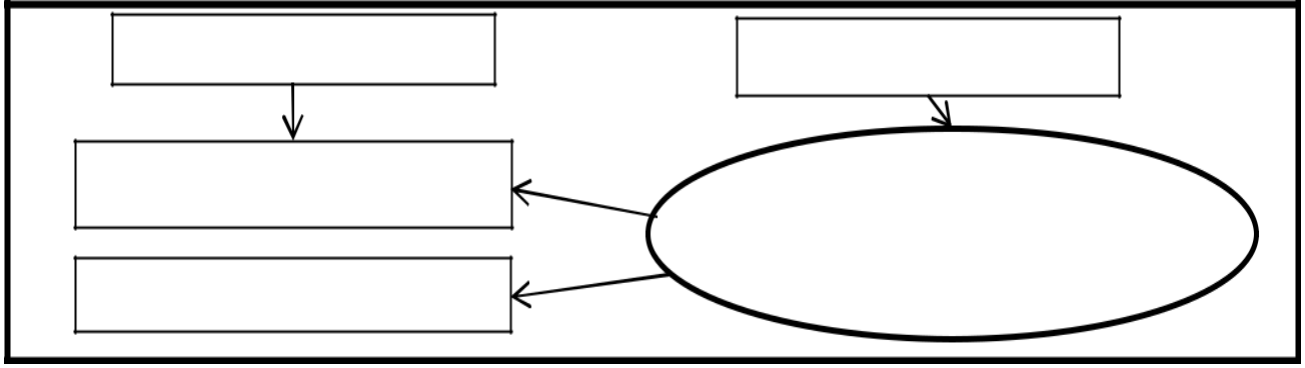

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Table No. 5
Descriptive Statistics

Descriptive Statistics

Variables	*N*	*Range*	*Minimum*	*Maximum*	*Mean*		*Std. Deviation*
	Statistic	*Statistic*	*Statistic*	*Statistic*	*Statistic*	*Std. Error*	*Statistics*
Debt to Equity Ratio	*6*	*2.34*	*1.03*	*3.37*	*2.3240*	*0.32546*	*0.79722*
Debt to Assets Ratio	*6*	*0.31*	*0.51*	*0.82*	*0.7026*	*0.04620*	*0.11316*
Return on Equity	*6*	*0.09*	*0.26*	*0.34*	*0.3065*	*0.01249*	*0.03060*
Return on Assets	*6*	*0.07*	*0.07*	*0.15*	*0.0993*	*0.01096*	*0.02686*
Net Profit	*6*	*0.06*	*0.05*	*0.11*	*0.0726*	*0.01029*	*0.02520*

Table 5 shows the descriptive statistics for the variables used in this study. Clearly, debt to equity ratio ranges from 1.03 to 3.37, leading to the average debt equity ratio to 2.32. The average debt to assets ratio selected companies 0.7026 which ranges from 0.31 minimum values to maximum value 0.82. Similarly, the return on equity, return on assets and net profit have average values of 0.3065, 0.0993 and 0.01029 respectively. The return on assets ranges from 0.09 to 0.26 likewise return on assets and net profit ranges from 0.07 to 0.15 and 0.05 to 0.11 respectively. The variables like debt to equity ratio, debt to assets ratio, return on assets and net profit have standard value of 0.797, 0.113, 0.030, 0.02, and 0.025 respectively which state that they deviate by that value not only that but also it states variables have diversity and can vary due to internal factors other than external factor. The standard error variables for the companies are 0.32, 0.046, 0.012, 0.010 and 0.010 respectively which stand for the influence of the external variables that have not been considered or undertaken for the study.

4.1.3 Correlation Analysis

Correlation analysis was built in order to assess the individual association level of explanatory variables with dependent variables and to test the linear relationship between the explanatory variables. Mainly, correlation explains dependence of an explanatory variable to another variable, in cases where there is a perfect correlation between explanatory variables, this means,

two or more variables, among whom there have correlation, show the same information. Such result leads to the conclusion that the model descriptive power is low and the statistical implication of individual coefficients decrease. This undermines the relevance of explanatory variables included in the model.

Table No. 6
Correlation Analysis

The table shows correlation between debt equity ratio, debt to assets ratio, return on equity, return on assets and net profit of sampled firms.

Variables	*DER*	*DAR*	*ROE*	*ROA*	*NP*
DER	1				
DAR	0.97	1			
ROE	0.28	0.33	1		
ROA	-0.82	-0.79	0.18	1	
NP	-0.94	-0.97	-0.18	0.78	1

Table no. 6 shows that there is a high degree of positive correlation between debt to equity ratio and the debt to assets ratio with the value 0.97 which states they lead one another to the same direction. In other words, it can be said that when one increases another one also increases and vice versa. Likewise, there is a high degree of positive correlation between debt to equity ratio and return on equity which states they lead one another to the same direction. In other words, it can be said that when one increases another one also increases and vice versa. There is negative correlation between debt to equity ratio and return of assets ratio. Similarly, there is a negative correlation between debt to equity ratio, return of assets ratio and net profit ratio which states they lead one another to the opposite direction. In other words, it can be said that when one decreases another one also decreases and vice versa. The debt to assets ratio and return equity ratio are positively correlated. Further, the debt to assets ratio, return on assets and net profit are negatively correlated.

4.1.4 Regression Analysis

Descriptive analysis, Correlation matrix analysis are performed. The regression models utilized to test the relationship between the determines capital structure such as debt equity ratio (DER)

and debt asset ratio (DAR) and firms' profitability such as profit margin ratio (NP), return on equity (ROE), return on assets (ROA).

Table No. 7
Regression Analysis for Dependent Variable Return on Assets (ROA).

This table shows regression results of return on assets on debt to equity ratio and debt to assets ratio of selected companies from the year 2073 to 2075. The asterisk (*) sign indicates that the result is significant at 1 percent level. The double asterisk (**) sign indicates that the result is significant at 5 percent. The asterisk (***) sing indicates that the result is significant at 10 percent level.

	Regression Coefficients (ROA)			R^2	*F-Value*	*P-Value*
M	*Intercept*	*Debt to Assets Ratio (DAR)*	*Debt to Equity Ratio (DER)*			
1	*-0.16*		*-0.029*	*0.73*	*10.87*	*0.030***
	(7.81)		*(-3.29)*			
2	*.24*	*-.20*		*0.71*	*9.64*	*0.036***
	(5.25)	*(-3.11)*				
3	*0.18*	*-0.37*	*-0.24*	*0.72*	*4.10*	*0.14*
	(1.48)	*(-0.12)*	*(-0.53)*			

Model 1

ROA = a1 +a2DERj +ej

This is the model formed with the combination of ROA and DER indicates that the model explains 73 percent of variability of data in dependent variable is due to independent variable and rest is affected by various factors in the economy. Similarly, the negative coefficient of DER indicates that there is negative relationship between ROA and DER whereas P value 3 percent indicates that the model is significant. Negative sign of coefficient shows that ROA and DER moves in the opposite direction.

Model 2

ROA = a1 +a2DARj +ej

This is the model formed with the combination of DAR and ROA indicates that the model explains 71 percent of variability of data in dependent variable is due to independent variable and rest is affected by various factors in the economy. Similarly, the negative coefficient of DAR indicates that there is negative relationship between ROA and DAR whereas P value 3.6 percent

indicates that the model is significant. Negative sign of coefficient shows that ROA and DAR move in the opposite direction.

Model 3

ROA = a1 +a2DERj+ a3DARj +ej

This is the model formed with the combination of DER and DAR with ROA indicates that the model explains 72 percent of variability of data in dependent variable is due to independent variable and rest is affected by various factors in the economy. Similarly, the negative coefficient of DAR and DER indicates that there is negative relationship between ROA with DAR and DER whereas P value 14 percent indicates that the model is insignificant. Negative sign of coefficient shows that DAR and DER with ROA moves in the opposite direction.

Table No. 8
Regression Analysis for Dependent Variable Return on equity (ROE).

This table shows regression results of return on assets on debt to equity ratio and debt to assets ratio of selected companies from the year 2073 to 2075. The asterisk (*) sign indicates that the result is significant at 1percent level. The double asterisk (**) sign indicates that the result is significant at 5percent. The asterisk (***) sign indicates that the result is significant at 10percent level.

Regression Coefficients (ROE)				R^2	*F-Value*	*P-Value*
M	*Intercept*	*Debt to Assets Ratio*	*Debt to Equity Ratio*			
1	*0.28*		*0.012*		*0.40*	*0.56*
	(6.28)			*0.090*		
			(0.63)			
2	*0.24*	*0.093*		*0.18*	*0.53*	*0.51*
	(2.68)	*(0.73)*				
3	*0.18*	*0.26*	*-0.025*		*0.24*	*0.80*
	(0.72)	*(0.41)*		*0.14*		
			(-0.27)			

Model 4

ROE = a1 +a2DERj +ej

This is the model formed with the combination of ROE and DER indicates that the model explains 9 percent of variability of data in dependent variable is due to independent variable and rest is affected by various factors in the economy. Similarly, the positive coefficient of DER

indicates that there is positive relationship between ROE and DER whereas P value 56 percent indicates that the model is insignificant. Positive sign of coefficient shows that ROE and DER moves in the same direction**.**

Model 5

ROE = a1 +a2DARj +ej

This is the model formed with the combination of DAR and ROE indicates that the model explains 18 percent of variability of data in dependent variable is due to independent variable and rest is affected by various factors in the economy. Similarly, the positive coefficient of DAR indicates that there is positive relationship between ROE and DAR whereas P value 51 percent indicates that the model is insignificant. Positive sign of coefficient shows that ROE and DAR moves in the same direction**.**

Model 6

ROE = a1 +a2DERj+ a3DARj +ej

This is the model formed with the combination of DER and DAR with ROA indicates that the model explains 14 percent of variability of data in dependent variable is due to independent variable and rest is affected by various factors in the economy. Similarly, the negative coefficient of DER indicates that there is negative relationship between ROE with DER and the positive

The coefficient of DAR indicates that there is a positive relationship between ROE and DAR. Whereas

P value 80 percent indicates that the model is insignificant. Negative sign of coefficient shows that DER and ROA moves in the opposite direction again Positive sign of coefficient shows that ROE and DAR move in the same direction**.**

Table No. 9
Regression Analysis for Dependent Variable net profit (NP).

This table shows regression results of net profit on debt to equity ratio and debt to assets ratio of selected companies from the year 2073 to 2075. The asterisk (*) sign indicates that the result is significant at 1percent level. The double asterisk (**) sign indicates that the result is significant at 5percent. The asterisk (***) sign indicates that the result is significant at 10percent level.

		Regression Coefficients (NP)		R^2	F-Value	P-Value
M	*Intercept*	*Debt to Assets Ratio*	*Debt to Equity Ratio*			
1	*0.14* *(10.22)*		*-0.03* *(-5.20)*	*0.87*	*27.07*	*0.007**

2	*0.23*	*-0.22*		*0.95*	*70.42*	*0.001**
	(12.26)	*(-8.39)*				
3	*0.25*	*-0.28*	*0.009*	*0.95*	*28.52*	*0.011***
	(5.00)	*(-1.24)*	*(0.48)*			

Model 7

NP = a1 +a2DERj +ej

This is the model formed with the combination of NP and DER indicates that the model explains 87 percent of variability of data in dependent variables is due to independent variables and rest is affected by various factors in the economy. Similarly, the negative coefficient of DER indicates that there is a negative relationship between NP and DER whereas P value0 .7 percent indicates that the model is significant. Negative sign of coefficient shows that NP and DER moves in the opposite direction.

Model 8

NP = a1 +a2DARj +ej

This is the model formed with the combination of DAR and NP indicates that the model explains 95 percent of variability of data in dependent variables is due to independent variables and rest is affected by various factors in the economy. Similarly, the negative coefficient of DAR indicates that there is a negative relationship between NP and DARK whereas P value0 .1 percent indicates that the model is significant. Negative sign of coefficient shows that NP and DAR move in the opposite direction.

Model 9

NP = a1 +a2DERj+ a3DARj +ej

This is the model formed with the combination of DER and DAR with NP indicating that the model explains 95 percent of variability of data in dependent variables is due to independent variables and rest is affected by various factors in the economy. Similarly, the negative coefficient of DAR indicates that there is a negative relationship between NP with DAR and the positive coefficient of DER indicates that there is a positive relationship between NP and DER. Whereas P value 1.1 percent indicates that the model is significant. Negative sign of coefficient

shows that DAR and NP moves in the opposite direction again Positive sign of coefficient shows that NP and DER moves in the same direction**.**

Table No. 10

Hypothesis Testing using Dependent Variable Debt to Equity Ratio

Hypothesis		*Variables*		*(P-value)*	*Results At 90 and 95 percent interval*
		Dependent	*Independent*		
HO_1	*There is significant relationship between total debt to total assets and return on equity (ROE)*	*ROE*	*DAR*	*0.56*	*>5 percent and 10 percent Doesn't Support HO_1*
HO_2	*There is significant relationship between total debt to total assets and net profit (NP)*	*NP*	*DAR*	*0.001*	*<1 percent Supports HO_1*
HO_3	*There is significant relationship between total debt to total assets and return on assets (ROA)*	*ROA*	*DAR*	*0.036*	*<5 percent Supports HO_1*
HO_4	*There is significant relationship between total debt to total equity and return on equity (ROE)*	*ROE*	*DER*	*0.56*	*>5 percent and 10 percent Doesn't Support HO_1*
HO_5	*There is significant relationship between total debt to total equity and return on net profit (NP)*	*NP*	*DER*	*0.007*	*<1 percent Supports HO_1*
HO_6	*There is significant relationship between total debt to total equity and return on assets (ROA)*	*ROA*	*DER*	*0.030*	*<5 percent Supports HO_1*

4.2 Major Findings

(I) The debt equity ratio is high compared to its standard for the years 2073, 2074 and 2075 respectively. The optimal debt to equity ratio varies by industries, but it should not be

above a level of 2.0. Especially in 2073 debt equity ratio is high. The ratios for the respective years are 3.3719, 2.6576 and 2.5746. A debt to equity ratio of more than 2 indicates the company derives more than two-thirds of its capital financing from debt and

one-third from shareholder equity. It means it has crossed the standard of 2.0. So the company has not maintained its debt to equity ratio as per the standard.

(II) The debt to assets ratio of the company is 0.8178, 0.7752 and 0.7668 respectively for the year 2073,2074 and 2075.the company has used more than 75 percent of its debt for purchasing the assets. Return on equity for year 2073, 2074 and 2075 are 33.36, 34.43 and 29.38 percentages respectively. Which means the contribution of the shareholder's fund for generating the profit for the company are 33.36, 34.43, and 29.38 percentages respectively in year 2073, 2074 and 2075. In the year 2074 it is highest compared to other years. The higher ratio of the return on equity is good for the company. Looking at the return on assets ratio the ratio for the year 2073, 2074 and 2075 are 0.0809, 0.1004 and 0.0875 respectively. This means the assets of the company have generated the profit of 8, 10 and 8.5 percentage in respective year. In year 2074 the assets

generated more profit compared to other years.

(III) The net profit margin ratios of the company are 0.0538, 0.0567, and 0.0516 respectively for the year 2073, 2074, and 2075.The net profit margin ratio measures the operating efficiency of generating net income per rupees of sale. The higher net profit margin ratio

is desirable for a firm. For trading firm 5 percent profit margin may be good.

(IV) The above table has shown the difference ratio of bottlers Nepal. The debt equity ratio is too high comparing to its standard for the years 2073, 2074 and 2075 respectively. The optimal debt to equity ratio varies by industries, but it should not be above a level of 2.0. Especially in 2073 debt equity ratio is too high. The ratios for the respective years are 2.45, 1.86 and 1.03 A debt to equity ratio of less than 2 indicates the company derives more than two-thirds of its capital financing from shareholder equity and one-third from debt. It means it has crossed standard of the 2.0 in year 2073.So the company has maintained its debt to equity ratio as per the standard.

(V) The debt to assets ratio of the company are0.6999, 0.6499 and 0.5062 respectively for the year 2073, 2074 and 2075.The Company has used more than 75 percentage of its debt for purchasing the assets. Return on equity for year 2073, 2074 and 2075 are 33.36, 34.43 and 29.38 percentages respectively. Which means the contribution of shareholder's fund

for generating the profit for the company are 33.36, 34.43, and 29.38 percentages respectively in year 2073, 2074 and 2075. In the year 2074 it is highest comparing to

others years. The higher ratio of the return on equity is good for the company. Looking at

(VI) the return on assets ratio the ratio for the year 2073, 2074 and 2075 are

0.0749, 0.1028 and 0.1495 respectively. This means the assets of the company have

generated the profit of 7.5, 10 and 15 percentage in respective year. In year 2074 the

assets generated more profit compared to last year again in year 2075 it increase by 5

percent which too good for the company .It means the company has utilized its assets

properly and efficiently during the operation of the company.

(VII) The net profit margin ratios of the company are 0.0678, 0.0913, and 0.1145 respectively

for the year 2073, 2074, and 2075.The net profit margin ratio measures the operating

efficiency of generating net income per rupees of sale. The higher net profit margin ratio

is desirable for a firm. For trading firm 5 percent profit margin may be good. Here the

company has done tremendous work for increasing its profit margin ratio in every year.

Table 5 shows the descriptive statistics for the variables use in this study. Clearly, debt to

equity ratio ranges from 1.03 to 3.37, leading to the average debt equity ratio to 2.32. The

(VIII) average debt to assets ratio selected companies 0.7026 which ranges from 0.31 minimum

values to maximum value 0.82. Similarly, the return on equity, return on assets and net

profit have average value of 0.3065, 0.0993 and 0.01029 respectively. The return on

assets ranges from 0.09 to 0.26 likewise return on assets and net profit ranges from 0.07

to 0.15 and 0.05 to 0.11 respectively. The variables like debt to equity ratio, debt to assets

ratio, return on assets and net profit have standard value of 0.797, 0.113, 0.030, 0.02, and

0.025 respectively which state that they deviate by that value not only that but also it

states variables have diversity and can vary due to internal factors other than external

factor. The standard error variables for the companies are 0.32, 0.046, 0.012, 0.010 and

0.010 respectively which stand for the influenced by the external variables that have not

been considered or undertaken for the study.

Table 6 shows that there is high degree of positive correlation between debt to equity

ratio and the debt to assets ratio with the value 0.97 which states they lead one another to

the same direction. In other words, it can be said that when one increased another one

also increases and vice versa. Likewise, there is high degree of positive correlation

between debt to equity ratio and return on equity which states they lead one another to the

same direction. In other words, it can be said that when one increased another one also

increases and vice versa. Similarly, there is negative correlation between debt to equity ratio, return of assets ratio and net profit ratio which states they lead one another to the opposite direction. In other words, it can be said that when one increase another one decreases and vice versa. The debt to assets ratio and return equity ratio are positively correlated. Further, the debt to assets ratio, return on assets and net profit are negatively correlated.

4.3 Discussion

Theories of capital structure have been well documented in the finance literature. Most influentially, the Modigliani and Miller (1958) work has given the theoretical foundation for further enquiry into the capital structure theory. The contributions of various financial economists and researchers have given new dimensions to capital structure theories, in particular by taking into account corporate taxes (Modigliani and Miller, 1963), bankruptcy costs (Stiglitz, 1972; Kraus and Litzenberger, 1973; Titman, 1984), agency cost (Jensen and Meckling, 1976; Myers, 1977; Jensen, 1986), personal taxes (Miller, 1977) and information asymmetries (Ross, 1977; Myers and Majluf, 1984; Myers, 1984). This subsection is devoted to get brief insight into these theories. Modigliani and Miller's (1958) independent hypothesis is dealt separately. Tax, bankruptcy cost and agency cost aspect are dealt under tradeoff theory and information asymmetry approaches are dealt under pecking order theory.

Abor (2005) stated that the relationship between capital structure and profitability of listed firms on the Ghana Stock Exchange and find a significantly positive relation between the ratio of short-term debt to total assets and ROE and negative relationship between the ratio of long-term debt to total assets and ROE but Gill et al. (2011) does not support Abhor (2005) as found that the findings of this paper also show a positive relationship between short-term debt to total assets and profitability, long-term debt to total assets and profitability, and between total debt to total assets and profitability in the manufacturing industry. As per this particular study there is positive relationship between ROE and debt to total assets ratio.

Siro (2013) Profitable firms that generate earnings are expected to use less debt than those who use more debt that do not generate earnings as per expectation. Miglo (2010) found that there was a negative correlation between debt and profitability of the firms and Abbasali (2012) also

found the results of the study indicated a negative relationship between debt ratio and financial performance. This particular study also found the negative relationship between debt to equity ratio with ROA and NP.

Ebaid (2009), Empirically investigated the impact of capital structure choice on company performance. It applied multiple regression analysis in his study so as to estimate the relation between the leverage level and the performance. Three accounting based measures of financial performance i.e. return on equity, return on assets, and gross profit margin were used by the study and based on a sample of non-financial Egyptian listed companies for the period (1997-2005), the results reveal that capital structure choice decision, in general terms, has a weak-to-no impact on the performance. Gill (2011), applied correlations and regression analyses to estimate the functions relating to profitability that measured by return on equity with measures of capital structure. Empirical results show a positive relationship between debt to total assets and profitability and between total debt to total assets and profitability in the service industry. Also, the findings of their study show a positive relationship between debt to total assets and profitability in the short-run, long-term debt to total assets and profitability and between total debt to total assets and profitability in the manufacturing industry but this particular study also found the negative relationship between debt to equity ratio with ROA and NP, and positive relationships with ROE.

Aryal (2011), the capital structure of bottlers Nepal limited that the company does not have proper balance between debt and equity. Kafle (2012), reported that both the companies were facing serious deterioration in earnings according to the net operation income approach. He noted down both the companies had defective capital structure as debt equity ratio were not so much satisfactory. This particular study is also consistent with the finding that these companies did not maintain capital structure as per standard.

Goyal (2013), studied on listed public sector banks in India, tested the study variables using regression analysis. The results of this study validated a strong positive dependence of short term debt to capital with all profitability measures of ROA, ROE and EPS while long term debt to capital and total debt to capital had a negative relationship with return on assets (ROA), return on equity (ROE) and Earning per share (EPS). And Kipesha (2014) with his study on commercial banks in Tanzania used fixed effect regression model with the help Housman test to measure the

relationship between capital structure and banks performance. His results indicated the a presence of significant negative relationship between total debt to equity and long term debt to equity with bank cost efficiency and return on equity, something which implies the presence of negative tradeoff between firm leverage and firm performance. The same study indicated a causality relationship between firm leverage and return on asset. Here in this study we also found that the negative relationship between long term debt with ROA, ROE, NP.

Bhattarai (2015) in her research titled "capital structure of manufacturing companies in Nepal", she has conducted that companies do not always plan capital structure and it develops as a result of the financial decisions taken be the financial manager without any formal planning. Moreover some industries even could not meet the interest and other expenses from the income. So they increase loan and become more levered. It is suggested that increasing the profitability of the company by reducing the burden of interest on debt. The study recommends having the optimal capital structure. Hence, the excessive use of debt should be gradually curtailed in the coming year because the companies have no earning capacities to meet the interest burden whereas this study also found the same situation of the manufacturing companies using more debt for financing the capital which increases the cost of the debt, finally that affects the profitability of the company. And also affects the share value of the company.

This study is supported by Rahaman, Shekhar and Uddin (2019) in that the debt ratio and equity ratio have a significant positive impact but debt to equity ratio has a significant negative impact on ROA. This paper also exposes that, equity ratio has a significant positive impact but debt to equity ratio has a significant negative impact on ROE. However the insignificant positive relationship in this study contradicts with major findings of others.

CHAPTER V

SUMMERY AND CONCLUSION

5.1 Conclusion

There is high degree of positive correlation between debt to equity ratio and the debt to assets ratio, which states they lead one another to the same direction. In other words, it can be said that when one increased another one also increases and vice versa. Likewise, there is high degree of positive correlation between debt to equity ratio and return on equity which states they lead one another to the same direction. In other words, it can be said that when one increased another one also increases and vice versa. Similarly, there is negative correlation between debt to equity ratio, return of assets ratio and net profit ratio which states they lead one another to the opposite direction. In other words, it can be said that when one decreases another one also decreases and vice versa. The debt to assets ratio and return equity ratio are positively correlated. Further, the debt to assets ratio, return on assets and net profit are negatively correlated.

The variability of dependent variable (ROA) with independent variables (DAR and DER) is more than 70%.it means that dependent variable gets affected by independent variables by70 percent and rest by others factors in the economy. Similarly, the negative coefficient of DAR and DER indicates that there is negative relationship between ROA with DAR and DER whereas P value is significant. Negative sign of coefficient shows that ROA with DAR and DER moves in the opposite direction.

The variability of dependent variable (ROE) with independent variables (DAR and DER) is less than 20 percent. It means that dependent variable gets affected by independent variables by less than 20 percent and rest by others factors in the economy. Similarly, the positive coefficient of DAR and DER indicates that there is positive relationship between ROE with DAR and DER whereas P value is insignificant. Positive sign of coefficient shows that ROA with DAR and DER moves in the same direction.

The variability of dependent variable (NP) with independent variables (DAR and DER) is more than 85 percent. It means that dependent variable gets affected by independent variables by 85 percent and rest by other factors in the economy. Similarly, the negative coefficient of DAR and DER indicates that there is negative relationship between NP with DAR and DER whereas P

value is significant. Negative sign of coefficient shows that NP with DAR and DER moves in the opposite direction.

5.2 Implication

It is clear that the ideal capital structure for any firm is the optimal capital structure because the optimal capital structure is the level of debt/equity ratio that maximizes the firm's value. Though, the optimal capital structure is far from convincing because the elements of capital structure are difficult to measure precisely. It is also noticeable that the issues of taxes and costs of financial distress are very important to a targeted or optimal capital structure.

The taxpaying firms should explore the benefits of using debt to finance their operations in order to take advantage of the tax benefits. However, loss making firms and firms with high tax credits may not find debt capital very beneficial and so should use it with extreme care and when it is really necessary to do so. This should be the case in order to avoid the risk associated with using debt exceeding the benefits. Generally the higher the tax rate, the more beneficial it will be to use debt financing but we advise caution always as too much use of debt increases risk. The companies, especially the profitable ones and government, should contribute more to stimulate growth of Nepal‟s manufacturing companies by issuing more long-term bonds to the general public rather than the current focus on short-term bank loans. When this happens, it would also stimulate more trading in long term bonds and hence the growth of the Nepalese manufacturing companies and a further growth of Nepalese firms who are mostly small scale firms. Lastly, studies on the issues of capital structure in Nepal not only on listed firms but on non-listed firms. Future studies if undertaken should also include topics like „finding out about why the manufacturing companies in Nepal are still underdeveloped or why it is growing that slowly‟. A well-developed capital structure is essential to support to the emerging and capital manufacturing companies in Nepal.