# CAPITAL STRUCTURE AND PROFITABILITY OF MANUFACTURING COMPANIES IN NEPAL

A dissertation submitted to the office of the Dean, Faculty of Management in partial fulfillment of the requirements for the Master's Degree

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## CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **"Capital Structure and profitability of Manufacturing Companies in Nepal"**. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the dissertation.

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## REPORT OF RESEARCH COMMITTEE

Ms. Saru Acharya has defended research proposal entitled **"Capital Structure and profitability of Manufacturing Companies in Nepal"** successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidelines of supervisor Dr. Priti Raj Adhikari Submit the thesis for evaluation and viva-voce examination.

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## APPROVAL – SHEET

We have examined the dissertation entitled **"Capital Structure and profitability of Manufacturing Companies in Nepal"** presented by Saru Acharya candidate for the degree of Master of Business Studies (MBS semester) and conducted the viva voce examination of the candidate. We hereby certify that the thesis is worthly of acceptance.

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Researcher

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## ABBREVIATIONS

| | | |
|---|---|---|
| AGM | - | Annual General Meeting |
| ATM | - | Automatic Tailor Machine |
| BNL | - | Bottlers Nepal Limited |
| BOD | - | Board of Directors |
| CBs | - | Commercial Banks |
| CEO | - | Chief Executive Officer |
| CV | - | Coefficient of Variation |
| DTA | - | Debt to Total Assets |
| DTE | - | Debt to Total Equity |
| EBIT | - | Earnings before Interest and Tax |
| EPS | - | Earning Per Share |
| FY | - | Fiscal Year |
| HDL | - | Himalayan Distillery Limited |
| LDTA | - | Long Term debt to Total Assets |
| LTD | - | Limited |
| LTDTA | - | Long Term Debt to Total Assets |
| NEPSE | - | Nepal Stock Exchange |
| NLOL | - | Nepal Lube Oil Limited |
| NOI | - | Net Operating Income |
| NPAT | - | Net Profit after Tax |
| NPV | - | Net Present Value |
| NRB | - | Nepal Rastra Bank |
| ROA | - | Return on Assets |
| ROE | - | Return on Equity |
| SD | - | Standard Deviation |
| STDTA | - | Short Term Debt to Total Assets |
| TA | - | Total Assets |
| TDTA | - | Total Debt to Total Assets |
| TDTE | - | Total Debt to Total Equity |
| TU | - | Tribhuvan University |
| UNL | - | Uniliver Nepal Limited |
| WACC | - | Weighted Average Cost of Capital |

## ABSTRACTS

This study examined the impact of capital structure and profitability on listed manufacturing companies in Nepal by analyzing data from four companies over a 10-year period, from 2071 to 2080 (Nepali calendar years). The data were sourced from annual reports, company brochures, the Nepal Stock Exchange (NEPSE), the Securities Board of Nepal, and company websites. Regression models were utilized to evaluate the significance and impact of capital structure on firm profitability.

The analysis revealed mixed results. A negative correlation was found between the debt-to-assets (D/A) ratio and profitability measures such as return on equity (ROE) and return on assets (ROA). However, the regression models showed varied outcomes: while a negative relationship was observed between the debt-to-equity ratio and net profit margin (NPM), the debt-to-assets and long-term debt ratios exhibited a positive relationship with NPM when using random effects regression. Additionally, the regression analysis indicated a negative relationship between ROA and all capital structure variables, yet a positive relationship between the debt-to-assets ratio and company profitability measures (ROE, ROA, and NPM).

In summary, both correlation and regression analyses pointed to a negative relationship between the debt-to-equity ratio and company profitability metrics (ROA, ROE, and NPM). Conversely, regression results suggested that long-term and short-term debt-to-assets ratios positively influence profitability. Based on these findings, it is recommended that managers of manufacturing companies consider increasing their reliance on long-term and short-term debt as sources of finance, as these factors appear to significantly influence profitability measures such as ROE, NPM, and ROA.



Key Words: *Debt to total assets ratios, debt to equity ratio, return on assets (ROA), return on equity (ROE) net profit margin (NPM) and NEPSE.*

# Chapter I
# Introduction

## 1.1 Background of the study

The ratio of debt to equity capital is referred to as the capital structure, and it plays a significant role in the theory of financial management. A company's financing decision pertains to the ratio of debt to equity that is selected to fund the required investment, and a proper balance between risk and return to shareholders is required. A sensible balance between debt and equity makes up an ideal capital structure, which can serve to maximize the firm's worth and, ultimately, the wealth of its owners (Wippern, 1996).The ratio of debt to equity that a company utilizes to fund its operations is known as its capital structure. 'Structure' refers to the configuration of different components. Therefore, capital structure refers to the structuring of funds from various sources so that a corporation can have the long-term funding it needs. The long-term fund composition is known as the capital structure. Debt and equity capital are the two main parts of a capital structure. One aspect of a company's finance decision is its capital structure, which is essential to the success of the corporate entity. The mix of debt and equity instruments that make up a company's asset financing is known as its capital structure.

The utilization of excessive debt is actually done to maximize profit and achieve tax benefits. The primary benefit of employing debt is that interest payments are tax deductible, providing a tax shelter for the businesses. The real after-tax cost of capital is reduced as debt is used more heavily in the capital structure, increasing the firm's value. However, increased loan use might result in higher default risk and bankruptcy costs (Modigliani & Miller, 1963). A company's capital structure is made up of a variety of securities. A company's capital structure describes how it finances its activities. It can use debt, equity, or a combination of the two (Brigham & Gapenski 2004). The percentage of debt and equity on a company's balance sheet is referred to as capital. Business enterprises typically find it challenging to determine the ideal debt to equity ratio. A company has a variety of options for capital structures. It has the option of issuing either a lot of debt or not at all. It can execute forward contracts, utilize warrants, issue convertible bonds, arrange leasing finance, and trade bond swaps. The company's two primary decision-making domains are funding and investing. The capital structure decision-making process is the method by which the business is financed by a

combination of debt and equity. The directors are interested in selecting the ideal capital structure for their company while making funding decisions for the company. Choosing how much leverage to use is another crucial decision that the administration of the organization makes. The concepts of capitalization, leverage ratio, capital structure, and financial structure are all the same and are connected to the types of sources and sums of money that the company has employed to build them and purchase assets (Barges, 2009)

A large firm size makes it easier to generate external money for creditors, which will enhance the capital structure of the organization. Firm size can be interpreted as a reflection of a company (Wardani & Subowo, 2020). Both the associated risk and returns are directly impacted by capital structure. In order to maximize a firm's value and reduce its overall cost of capital, the right capital structure helps strike a balance between risks and rewards. Leverage increases lead to higher returns and more risk. In a similar vein, when leverage declines, risk and return both drops. The company maximizes return to owners by using more leverage at the lowest possible cost. In order to make wise capital structure decisions, it is crucial to investigate the relationship between a company's capital structure and profitability (Sultan & Adam, 2015). The study looked at eleven notable manufacturing and trading companies that aren't in the banking sector. The following variables have been selected to examine their effect on corporate capital structure: firm age, interest coverage ratio, asset tangibility, profitability, company size, growth potential, and liquidity. To explore the variables impacting capital structure, the research employed a combination of causal comparative and descriptive methods. The secondary sources provided the necessary data for the investigation. Financial data for every company covering a ten-year period, from FY 2005–2006 to FY 2015–2016.The study's conclusions indicate that the interest coverage ratio, asset tangibility, profitability, and liquidity are the main factors influencing the corporate capital structure of manufacturing companies (Bhattarai, 2020). The decision between debt and equity financing affects the company's entire financing plan, necessitating a delicate balancing act to properly manage risk and return to shareholders. A sensible combination of debt and equity can create an ideal capital structure that maximizes shareholder value and eventually increases their wealth (Basnet, 2021).

A manufacturing company's management must make a crucial choice about the capital structure in order to maximize profitability, minimize capital expenditures, and boost

shareholder value. The majority of organizations have a capital structure that combines loan and equity. The worth of the company and its strategic importance should be taken into consideration when determining how much of these two types of funding to use (Sultan & Adam 2015).

A company's capacity to meet stakeholder expectations of growing value and perform financially is greatly influenced by its capital structure, which consists of debt and equity. Businesses frequently employ hybrid financing solutions, such debt and equity, to finance their operations and establish their capital structure (Muhammad et al., 2014). The amount of profit a company makes throughout the course of its operations is measured. The goal of most managerial choices is to increase the profitability of the organization. Profitability of the company is a gauge of how well it is run and managed. In addition to management and owners, creditors are also curious in the firm's financial stability. While managers are more interested in knowing operational efficiency, the company's owners are more interested in returns or profitability. And it is also indisputable that the higher return envisages the possibility of higher extent of risk (Chechet & Olayiwola, 2014).

According to Brigham and Houston (2006), the company's management makes a number of policies and actions that ultimately result in profitability. Halim (2007) defined profitability as the degree to which management successfully manages the company's capital and assets in order to produce profits from the operations carried out by the company during a specific accounting period. Relatively speaking, businesses with high rates of return on investment or profitability take on less debt. The corporation can use domestically generated funds to finance most of its financial needs thanks to higher returns.

There are currently a lot of challenges facing Nepal's industrial sector, with many companies closing their doors and others nearing closure. The industry has low profit margins even if there is room for profit. The global economic slump, difficult trading conditions, sluggish governmental processes, persistent shortcomings in the adoption of technology, poor infrastructure, power shortages, and international rivalry have all contributed to the manufacturing sector's inconsistent progress over time. The manufacturing sector in Nepal is heavily dependent on the availability of trained workers and raw materials. Considering how underdeveloped the nation is, industrial expansion is

essential to raising the standard of living for Nepalese people. Nonetheless, a number of business performance-related concerns need to be addressed because the present state of manufacturing organizations is still unclear as a result of a lack of study. The performance of Nepalese manufacturing companies is lacking. Numerous sizable businesses have shut down, and some more are set to follow. Most businesses are able to turn a profit, but their profit margins are usually quite narrow. Due to a number of factors, including a long-standing lack of readiness to absorb new technologies, inadequate infrastructure, a lack of power, a stalled political process, challenging trading conditions, COVID, international competition, and a worldwide economic crisis, this sector has had unequal growth over time. Furthermore, Nepal's manufacturing sector relies heavily on labor and locally produced raw materials. Over the years, the Nepali government has implemented several policy initiatives and regulatory measures aimed at bolstering the industrial sector.

Businesses with the ability to make wise financial decisions will have a competitive edge in their sector and generate higher earnings. However, it is crucial that we understand that this choice can only be made sensibly if businesses understand how their debt policy affects their profitability (Velnamphy & Aloy, 2012).

The profitability of Dabur Nepal Private Limited and the impact of capital structure are examined in these studies. The data analysis was finished using descriptive statistics, t-test, regression analysis, and Pearson correlation. The secondary data, which covered the years 2013–2022, was found to pertain to private, international manufacturing companies operating in Nepal (Shrestha,2023).Consequently, the study's main goal is to ascertain how manufacturing organizations' capital structures impact their profitability. The study intends to provide insights into the impact of capital structure on profitability by analyzing the relationship between capital structure decisions and financial performance in Nepal's manufacturing sector. These results would be helpful in comprehending the difficulties Nepalese manufacturing enterprises confront and in formulating possible plans of action to improve their financial performance.

### 1.2 Problem statement

The choice of capital structure is also an empirical matter. As a result, a large body of academic literature studied public businesses' financing decisions both conceptually and

experimentally. The majority of research projects in corporate finance have attempted to investigate capital structure by taking into account a variety of factors within distinct conceptual frameworks. Traditional methods of operation were once utilized by business organizations. These days, businesses are increasingly sophisticated and competitive. Thus, for the past few decades, business sustainability has been a hot topic. Profitability leads to sustainability. Additionally, the right balance between debt and equity affects profitability (Nimalathasan, 2010). Realizing a profit is crucial for any company entity as it dictates the organization's ability to remain viable in the marketplace. Therefore, a financial manager should be able to pinpoint the elements that influence an organization's potential to increase profitability.

The capital structure refers to a company's policy about the mixed percentage of stock and debt. Each form of company capital has advantages and downsides when it comes to use. Therefore, a thorough analysis is required to find a good composition. One of the easiest methods for a business to get capital is through bank debt; issuing new equity is the hardest thing for a business to do (Gandakusuma & Aulia, 2019), Bhattari (2016) examined the effect of capital structure on performance of manufacturing companies listed at the Nepal stock exchange. He found that capital structure has negative relationship with the performance of Nepalese manufacturing sector.

Numerous research studies on this subject have been conducted in developed nations with stable economies. However, the MM approach hypothesis could not hold true in a developing country like Nepal where the economic environment is unstable, government policies change frequently, inflation and currency exchange rates are high, and companies must pay taxes on their revenue. This study is therefore being conducted to determine whether the company's capital structure has an impact on its performance. Consequently, some scholars have proposed various factors that influence profitability. Babalola and Abiodun (2013) proposed that the primary factor influencing profitability is the firm's size. Likewise, the size of the board, the chief executive officer duality, and corporate liquidity has been proposed by Gill & Mathur (2011) as key factors influencing profitability. Firm-specific factors also affect the company's profitability. The main focus of this research study is the impact that capital structure and firm-specific variables have on the profitability of manufacturing enterprises in Nepal. This research project is being

conducted in an effort to reduce these kinds of gaps. Thus, the research aims to address the following question in order to fulfill the aforementioned objective:

i. What is the current status of capital structure and profitability of selected sample Nepalese manufacturing companies?
ii. Is there relationship between capital structure and profitability of listed Nepalese manufacturing companies?
iii. Does capital structure affect the firm profitability of the selected Nepalese manufacturing companies?

### 1.3 Objectives of the study

The study's goals perfectly aligned with the inquiry it posed. Consequently, the study's particular goals are as follows:

i) To assess the position of capital structure and profitability in Nepalese manufacturing companies.
ii) To analyze the relationship between the capital structure and profitability in Nepalese Manufacturing Companies.
iii) To examine the degree of impact of capital structure on profitability in Nepalese manufacturing companies.

### 1.4 Rational of the study

Nepal's manufacturing sector is growing every day. There aren't many studies or research projects in Nepal that examine capital structure and the performance of manufacturing firms. Decisions about the application, investment, and hiring of the company's capital fund are crucial for the financial managers to make since they impact the capital structure of the business. The following are the study's significant findings:

i. The firms will find this study useful in reviewing their capital structure management and developing future plans that will enable them to perform significantly better in the long run. Will this study benefit not just the sampled companies but also the other companies in the population?
ii. Additionally, this study will assist in educating decision-makers on the value of capital structure management for their continued success.
iii. By examining organizations' financial structures, this research helps identify the company's strengths and weaknesses and steer it in the proper direction.

iv. This research project has given information to investors, creditors, owners, and shareholders to help them adopt a positive outlook.

## 1.5 Limitations of the study

In order to provide a thorough coverage of all manufacturing enterprises, the study is concentrated on a small number of manufacturing companies registered on the Nepal Stock Exchange. Only Nepalese manufacturing enterprises that are listed have been included in the sample. Consequently, this study has certain limitations, which include:

i. This study is depends on secondary data, articles, publications and journals of respective companies. Thus the result of the analysis depends on accuracy of available information.
ii. This study concentrates only capital structure on the firm's profitability of manufacturing companies.
iii. The period of the study is limited from fiscal year 2070/71 to2079/80.
iv. There are 19 manufacturing companies listed on NEPSE so far, but only four manufacturing companies are taken for the proposed study.

# Chapter II
# Literature Review

This chapter reviews a number of books, research papers, and articles in order to provide readers with a thorough understanding of the subject and to remind readers of the earlier studies conducted by different capital structure researchers. Meanwhile, because different industries have diverse capital structures, different models and conclusions are drawn. The literature was evaluated in this respect with the aim of determining variables, establishing a research framework, guaranteeing the type of data needed for the study, its methods of collection, defining the research gap, and so on. The technical requirements for presenting literature have been adhered to.

- Theoretical Review
- Empirical Review
- Research Gap

## 2.1 Theoretical review

The capital structure of a firm is the culmination of its long-term funding sources. It is a balanced combination of different long-term funding sources. Long-term debt, preferred stock, common stock, and retained earnings are the long-term sources of funding.
The choice of capital structure is crucial since it affects the investors' rate of return on investment. Therefore, in order to preserve the interest of its investors, the company's management must create an adequate capital structure (Nasim, 2016).

Abor (2005) In order to find a relationship between capital structure and profitability, the researcher employed regression models on data spanning five years from 22 Ghanaian listed companies. The findings indicated that long-term debt and profitability were negatively correlated. While short-term debt had a favorable effect on profitability, total debt also showed a negative link with profitability. Profitability was positively correlated with the firm's growth and size. The findings suggested that short-term debt should be the main source of funding.

Only a portion of a company's financial structure is its capital structure. It describes the combination of long-term financing sources, such as long-term debt and equity.

According to Nimalathasan (2010), a company's capital structure includes its long-term debt + preferred stock and net worth, which together constitute its permanent financing. The most important decision made by management to maximize earnings and reduce capital costs, which ultimately maximizes stockholder wealth, is the capital structure of a manufacturing company. Essentially, there are two primary funding sources. There are two types of finance: external finance, or debt, and internal finance, or equity. Most businesses utilize a capital structure that consists of a mix of debt and equity (Rahman, Sarker, & Uddin, 2019).

**Theories of capital structure**

**1. Optimal capital structure**

A company's ideal capital structure is the combination of debt and equity financing that optimizes market value while lowering capital costs. Because debt financing is tax deductible, it theoretically has the lowest cost of capital. Excessive debt, however, raises the required return on equity for shareholders as well as their financial risk. Therefore, businesses must determine the ideal point at which debt's marginal benefit equals its marginal cost.

For all financial decision makers, figuring out the best capital structure is a crucial and challenging task. Despite the tax shielding benefits, using exclusively debt in the capital structure can be dangerous due to the possibility of bankruptcy (Huang & Thi, 2003). Issuing just shares is also detrimental to the company since it requires cash to finance new investments; yet, shares may not always create the cash required to cover these costs (Huang & Thi, 2003). Thus, the central claim of is that businesses must choose the best possible balance between debt and equity in order to maximize their total profitability.

**2. Capital structure decision**

Selecting a company's debt and equity financing mix is crucial for funding its operations and expansion. This is known as capital structure decision-making. These are important choices that have an impact on the firm's cost of capital, financial flexibility, and total risk. In order to maximize shareholder value and preserve operational effectiveness and financial stability, a company seeks to optimize its capital structure through the proper balance of debt and equity. Important factors to take into account while deciding on a capital structure are interest rates, market conditions, the company's credit rating, tax

consequences, and the trade-off between the risks (like financial distress) and the benefits (like tax shielding) of debt.

The term "capital structure" describes the range of options a company uses to finance its assets (Bhaduri, 2002). In essence, the company can handle the money using either stock or debt. For all financial decision makers, choosing the right financing mix to finance assets is essential since it affects earnings before interest and taxes and changes the market value of the company's shares (Negasa, 2016). Therefore, choosing the right capital structure is among the most important choices that the public interest must make. Any business's success is often halted by a poor judgment. The choice of capital structure has a big managerial impact on the risk and return of the company.

**Factors affecting the capital structure decision.**

a. Cost of Capital: The capital structure is determined by the relative costs of debt and equity financing. In order to optimize value, businesses strive to reduce their total cost of capital.
b. Financial Flexibility: Businesses want financial structures that give them the flexibility to raise cash in both favorable and unfavorable circumstances.
c. Risk and Financial Distress: Higher debt loads put a person at greater danger of financial difficulty. Businesses must weigh the chance of default against the possible advantages of debt, such as tax shelters.
d. Market Conditions: Current market circumstances affect the price and accessibility of debt and equity, including interest rates and investor mood.
e. Growth Opportunities: Businesses with strong growth prospects may choose equity over debt in order to escape the fixed interest payments that come with it.
f. Control Considerations: The possibility of dilution of ownership and control through the issuance of new equity can worry current shareholders and management.

**Capital structure approaches**

The many ideas and tactics employed by businesses to ascertain the ideal ratio of debt to equity financing are referred to as approaches to the capital structure. Following are definitions for a few capital structure techniques.

**i. Net Income Approach (NI)**

Net Operating Income (NOI) is the company's earnings after all other costs, excluding interest on debt, are paid. Net Income (NI) is the amount of earnings available to equity shareholders following interest payments. Thus, Net Income is equal to NOI (Net Operating Income) minus I (Interest on Debt). The NI method states that decisions in capital structure have an impact on the firm's value. David Durand proposed this strategy in 1959. The NI Approach states that a company's value and WACC will fluctuate in tandem with changes in its financial leverage, or debt to equity ratio. According to the NI Approach, as leverage (the percentage of debt) rises, the WACC falls and the firm's value rises, and vice versa. The fundamental idea behind this strategy is that by increasing the amount of debt in the capital structure, the company can both raise its value and reduce its overall cost of capital (Pandey, 1995). This method makes the following assumptions:

i. Over time, neither the debt capitalization rate nor the equity capitalization rate change.
ii. The capitalization rate of debt is lower than the capitalization rate of equity, meaning that the cost of debt is less than the cost of equity (Kd < Ke).

This hypothesis states that rising debt ratios boost earnings per share. The increase in EPS results in an increase in the market price of the stock at the stated capitalization rate.

$MPS = EPS / Ke$

Where,

MPS = Market price of stock, EPS = Earnings per share

Ke = Cost of equity.

To put it another way, a higher debt ratio results in a lower overall cost of capital, and a lower overall cost of capital raises the market value of the businesses or company i.e.

$V = NOI / Ko = EBIT / Ko$

Where,

V = Market value of the firm, NOI = Net operating income

Ko = Overall cost of capital

As a result, a company can optimize its market value or stock price by establishing the ideal capital structure through a careful balance of debt and equity.

ii. **Net Operating Income Approach (NOI**)

According to the net operating approach, capital structure has no bearing on a company's worth. The operating income and asset risk of the company define its worth, not the

financing structure. This theory directly contradicts the NI methodology. The NI method is crucial to the choice of capital structure. It implies that the debt-to-equity ratio selection has an impact on the company's value and WACC. According to the NOI approach, the choice of capital structure is meaningless, and the level of financial leverage has no bearing on the firm's market value or WACC. Using the NOI approach, the cost of capital is assessed, and as a result, the ideal capital structure is determined based on operating leverage. The capital structure of the company has no bearing on its overall worth. Whatever advantages come from debt financing will be countered by an increase in the cost of equity, meaning that the overall cost of capital stays the same regardless of the level of financial leverage. As a result, there is no ideal capital structure, and investors don't care whether it changes (Paramasivan & Subramanian, 2009). Basic assumption of the approach is:

i. No corporation income tax.
ii. Debt costs don't change.
iii. The total cost of capital stays fixed.
iv. The predicted net operating income and the overall capitalization rate, often known as the opportunity cost of capital, determine the firm's value.
v. The firm's net operational income is unaffected by the level of financial leverage.

Formulas in NOI Approach

A. Values of the firm (V) = $\frac{EBIT}{K0}$×100

Where,

EBIT = Earnings before Interest and Taxes, K0 = Overall cost of capital

B. Market Value of Equity (S) = V-B

Where,

V = Value of Firm, B = Value of Debt

**iii. Traditional Approach**

According to the conventional method, there is an ideal capital structure that strikes a balance between the advantages and disadvantages of debt and equity. Since debt is less expensive than equity, taking on more debt initially lowers the total cost of capital. But, when debt levels rise, the company's cost of capital also rises because of the increased financial risk and possible expense of bankruptcy. Both the extreme prepositions of the relevance approach of NI theory and the irrelevance approach of NOI theory are rejected

by the traditional method. Unlike the NOI approach, which assumes increasing cost of capital and constant cost of debt (kd) and total cost of capital (ko), this approach does not assume lowering weighted average cost of capital (WACC) and constant cost of equity (ke).

A proper combination of debt and equity can raise the firm's value or lower the cost of capital (Negasa, 2016). Either the firm's worth can rise or the cost of capital can fall. When there is modest leverage, the weighted average cost of capital (WACC) decreases because expensive equity capital replaces low debt. The cost of stock will rise as a result of financial leverage, which puts shareholders at risk. Traditional theory, however, makes the assumption that, at a moderate level of leverage, the lower cost of debt more than offsets the increase in equity costs.

### iv. Modigliani – Miller Approach (MM Approach)

In their original viewpoint, Modigliani and Miller argue that the net operating income method explains the relationship between leverage and the cost of capital. By providing behavioral justification for the overall cost of capital, which stays constant across all leverage levels, they mount a powerful challenge to the conventional viewpoint. These are the presumptions:

i. Capital markets are ideal since they allow both individuals and businesses to borrow a limitless amount of money at the same interest rate.
ii. There is perfect competition in stock markets.
iii. The business tax is nonexistent.
iv. Transaction costs are nonexistent.
v. Buying and selling of securities is allowed for investors.
vi. Investors act in a logical manner.
vii. There is a 100% dividend payment ratio and no retained earnings.

**Proposition I**

The proposition made by Modigliani and Miller:I assert that a company's market value is unaffected by its capital structure. The rationale is that net operating income is capitalized at a rate appropriate for the firm risk class, which determines the firm's value (Modigliani and Miller, 1958). This claim states that there is no connection between a

company's capital structure and its overall value, or cost of capital. This idea disregards taxes.

**Proposition-II**

In order to compensate in the form of a premium for taking on greater risk as a result of increased leverage, proposition II stipulates that the cost of equity increases proportionately with an increase in financial leverage. Proposition II reveals that the value of a company rises with each additional unit of financial debt and takes corporate and individual taxes into account. Additionally, theory suggests that having as much debt financing as possible is always preferable because it raises the firm's value by lowering the cost of capital.

### v. Trade-off theory

According to the trade-off theory, there is a capital structure that optimizes a firm's value. As a result, the company had to establish a target leverage ratio and then progressively approach it. Target leverage ratios are chosen by the company after weighing the advantages and disadvantages of increasing leverage. Three elements influence the ratio: taxes, agency expenses, and financial distress costs (J.H., 2006). Therefore, the trade-off theory of capital structure proposes that three opposing factors—taxes, bankruptcy costs, or financial distress of the agency cost—drive a firm's goal leverage. As a result, the company looks for a debt level that strikes a compromise between the tax benefits of more debt and the potential financial hardship of an agency conflict. As a result, a company establishes a goal leverage ratio and works its way toward it. According to the trade-off theory, businesses balance the advantages of debt financing with the costs of borrowing. The cost of borrowing consists of bankruptcy fees and interest payments. The tax deductibility of interest payments is one advantage of debt financing, and the firm's worth is equal to that of an unlevered firm plus the value of its side effects, which include the tax shield and anticipated costs associated with financial instability (Brigham & Ehrhardt, 2005).

The trade-off hypothesis states that the ideal capital structure is reached when marginal expenses associated with bankruptcy are equal to the marginal tax shelter. Thus, a company would favor debt over equity until the likelihood of financial difficulty and the associated costs of bankruptcy begin to matter. Conversely, a company with a reliable source of income and a solid asset base is less likely to go bankrupt. This company's capital structure can accommodate a somewhat larger degree of leverage.

### vi. Pecking order theory

One of the most significant ideas of corporate leverage is Donaldson's 1961 introduction of the pecking order theory of capital structure. It contradicts the notion that businesses should have a special mix of equity and debt financing to reduce their cost of capital. According to the notion, a company has a clear preference list for the sources of funding it employs when seeking for ways to fund its long-term investments. It says that using internal money (retained earnings) should be a company's top priority, followed by debt and then outside equity. He contends that when businesses get more prosperous, they borrow less money since they would have enough cash on hand to fund their investment initiatives. Additionally, he contends that a company should look outside for funding when its internal resources are insufficient, ideally through corporate bonds or bank borrowings. Issuing fresh stock capital is the last and least favored option for financing after all internal, bank, and corporate bond options have been exhausted. For financing decisions, the firms have an ideal hierarchy. Retained earnings are the first option for funding, followed by the issuance of debt and stock as the next two options. There are no flotation charges associated with internal funds, and no additional disclosure of confidential financial data is needed (Rasiah & Kim, 2011). Myres (1984) states that internal funds (retained earnings) should be used first, followed by debt, with equity being the last option for funding the funds.

The following sources of funding are preferred if the company must employ outside funding:

1. Debt, 2. Convertible securities, 3. Preferred stock, 4. Common stock

This approach primarily recommends internal financing since it is less expensive than external financing of debt and equity. Debt financing raises interest costs for businesses, but equity financing cedes control of the company.

Siro (2013) said that businesses would rather use internal financing sources than pricey or costly external financing, and as a result, profitable businesses that produce profits are predicted to employ less debt than those that do not.

A well-known alternate hypothesis that explains why companies select a particular capital structure is called pecking order theory. New funding to support their expansion and prospective activities. This priority order notion is known as the "pecking order theory."

Debt financing is employed when the company's internal resources aren't enough to cover the projected investment. The next financing option down the hierarchy is the issuance of preferred capital. The least preferred source of fundraising is the issue of shares. This is solely a reliable last resort. Pecking order theory provides one behavioral viewpoint on capital structure.

### vii. Agency cost theory

Internal expenses to the business known as agency costs are incurred when an agent acts on behalf of a principal. Core inefficiencies are typically followed by dissatisfaction, disruptions, and conflicts of interest between shareholders and management.

Due to a conflict of interest between the parties, agency costs can also result from the use of debt in the capital structure. Conflicts of interest may emerge between shareholders and bondholders or between shareholders and management, according to Jensen & Meckling (1976). It is the expectation of the shareholders to manage the company and seize opportunities that would augment their own riches. To increase their own riches at the expense of shareholders, management can, nevertheless, plan to overgrow the company (Jensen & Meckling, 1976).

The theory of agency cost pertains to the interaction between the principal, who are the shareholders, and the agent of the principal, which are the company's managers. This implies that the company might be seen as a hub for loosely specified resource holder contracts. An agency relationship occurs when one or more people, referred to as principals, engage one or more other people, referred to as agents, to carry out a service and then give the agents decision-making authority. The idea behind agency theory was first put forth by Berle and Means in 1932. They contended that ownership and control became increasingly distinct as a result of huge businesses' equity ownership being continuously diluted. Professional management now have the chance to pursue their interests rather than that of shareholders.

A business can reduce agency costs by relying more on debt financing. By doing this, less equity funding is needed, and associated agency costs are avoided. However, a business can only rely on debt financing to such an extent. Due to higher debt agency expenses brought on by the possibility of the business experiencing financial troubles. The rights of current shareholders may be diluted by claims from new debt holders,

necessitating higher rates of return, which are reflected in the firm's higher cost of capital in addition to the expenses related to the financial crisis.

**Leverage**

Leverage is the proportion of debt in a company's capital structure, or the ratio of debt to equity. A corporation that has more debt than the average for its industry is said to be highly leveraged. Leverage use is not always detrimental. Because of the magnifying effects of leverage, a slight change in sales can have a disproportionate impact on the company's earnings. Leverage increases lead to more risk and higher return. Among these, three different kinds of leverage exist financial leverage is useful to analysis capital structure decision (Saleyi & Biglar, 2009).

**Financial leverage**

The leverage produced by using a finance source with a fixed rate of return is known as financial leverage. For instance, regardless of operating success, the business must pay a specified return on loans, debentures, preference shares, etc.

Therefore, when an organization's operational profit increases, earnings per sales increase more than proportionately. Financial leverage is created when fixed charge bearing securities like bonds and preferred shares are used. In actuality, the company's use of debt is known as financial leverage. Financial leverage aids in the explanation of risk, and fixed charge bearing securities have a definite impact on earnings. The process of spending money that was paid for up front with the intention of making more money later on is known as financial leverage. Using funds acquired at a fixed cost with the goal of boosting the return to shareholders is known as financial leverage (Pandey, 1995). The degree of financial leverage is a more accurate way to describe financial leverage. Percentage change in operating profit divided by percent change in earnings per share equals the degree of financial leverage.

**i. Financial leverage: effects on shareholders return**

Increasing shareholder profits in a climate of good economic conditions is the company's main objective when using financial leverage. According to the assumptions, fixed charge funds can be obtained for less money when compared to the firm's net asset return rate. Therefore, when there is a greater difference between the earnings from assets

funded by fixed charge funds and the cost of these funds distributed to shareholders, the earning per sales or return on equity increases. On the other side, profits per sales would decline if the business paid more for the fixed charges money than it did for the assets.

**ii. Financial leverage: Effects on shareholders risk**

Due to changes in earnings before interest and taxes, earnings per sales fluctuate over a wider range when the capital structure incorporates additional debt. In contrast to earnings per sales, operational profit increases and decreases at a slower rate. Thus, using financial leverage results in a higher earning per sale but a less consistent one.

iii. **Operating risk**

Operating risk is characterized by fluctuations in earnings before interest and taxes or in return on total assets. That risk is not available.

**iv. Financial risk**

The volatility in profits per share (EPS) resulting from the use of financial leverage, usually through debt financing, is referred to as financial risk. A company that is unlevered does not have any debt in its capital structure. There is no financial risk related to variations in earnings as a result of interest payments because there is no debt and no interest expense. However, because it must pay fixed interest to its creditors regardless of its profitability, a company that employs debt to finance its operations exposes itself to financial risk. In prosperous times, this can increase shareholder profits, but in difficult times, it can also increase losses. Financial risk is, then, a risk that is present only when a company raises funds through debt financing.

**Cost of capital**

The amount a business pays to finance its operations—whether it be with debt, equity, or preferred stock—is referred to as its cost of capital. These expenses usually consist of debt interest payments, dividends to preferred stockholders, and the anticipated returns for equity shareholders. Businesses need to understand the cost of capital in order to assess the viability and profitability of projects or investments when making investment decisions. Businesses can assess whether an investment will yield enough returns to cover the cost of financing by comparing the projected returns and the cost of capital.

**Component of Cost of Capital**

i. Cost of debt = Kd (1-T)

ii. Cost of Preferred stock (KPS) = DPS/ (Po-F) = DPS/NP

Where,

| | |
|---|---|
| Kd- cost of debt, | T- Tax rate |
| Dps- dividend on preferred stock, | Po- price of preferred stock |
| F- Flotation cost, | NP-Net proceed |

iii. Cost of common stock

Internal Equity Ks = D1/Po + g

External Equity Ke = D1/NP + g

Where,

| | |
|---|---|
| Ks- Cost of internal equity, | D1- expected dividend |
| Po- price of stock, | g- Growth rate |
| NP- net proceed, | Ke- cost of external equity |

**Weighted average cost of capital (WACC)**

The total cost of all long-term funding sources, such as debt, preferred stock, and common stock, is the company's weighted average cost of capital, or WACC. The weighted average cost of capital (WACC) is the overall cost of financing for a company divided by the proportions of each source of capital used.

WACC = WD*Kdt + W.P.S*K.P.S + Ws*Ks + We*Ke

Where,

| | |
|---|---|
| Wd- weight of debt, | Kdt- cost of debt after tax |
| WPS- weight of preferred stock, | KPS- Cost of preferred stock |
| Ws- Weight of internal equity, | Ks- Cost of internal equity |
| We- Weight of new equity or new issues, | Ke- Cost of new equity or new issues. |

**2.2 Empirical Review**

Baral (2012) established that, as of July 16, 2010, an effort had been made to look into the factors that determine capital structure of the firms listed with Nepal Stock Exchange Ltd., including size, business risk, growth rate, earning rate, dividend payout, debt service capacity, and amount of operating leverage. A multivariate regression model comprising eight variables has been employed to evaluate the impact of certain

explanatory variables on capital structure. Manufacturing firms, commercial banks, insurance businesses, and finance corporations were all included in the early analysis. However, manufacturing enterprises were eliminated in the final analysis because of the peculiar sign problem in the model's constant term. This study demonstrates that the capital structure of listed firms is statistically significantly influenced by factors such as size, growth rate, and earning rate.

Sultan and Adam (2015) analyzed the impact of capital structure on the earnings of Iraqi companies registered on the country's stock exchange. The study applied statistical techniques, such as the multiple regression model represented by ordinary least squares, to four companies from the Iraqi industrial sector throughout the period of 2004–2013 in order to explore the purported impact of capital structure on profitability. The results of the study indicate that capital structure has a major positive impact on the profitability of listed companies in Iraq. Furthermore, it has been discovered that the capital structure of the listed enterprises is negatively impacted by assets (firm-size) and profitability. These results mostly align with the pecking order theory's predictions and the signaling implications of a firm's capital structure choices. The concerned companies need to increase their firm size because it has a negative correlation with equity growth and continuity as well as return on equity.

Mishra (2015) assessed the relationship between the employed and the cost of capital and return on capital. Ratio analysis, means, standard deviation, coefficient of variation, and correlation coefficient were among the analytical methods used to assess the capital structure and debt servicing capabilities of the business. The average DOL found in this study is negative, indicating the firm's inefficient earning potential. Less than one is the typical DFL. The DOL and DFL for the same kinds of manufacturing enterprises are completely inconsistent. Due to the company's low equity, Jyoti Spinning Mills Ltd. has a negative debt equity and interest coverage ratio. A negative interest coverage ratio indicates that the company's earnings are insufficient to meet its interest payments. The profit margin for Joyti Spinning is negative because of the usage of less debt, which suggests that the business has been losing money for practically the whole research time. The fact that Jyoti Spinning's ROA is negative means that the company's assets aren't making money. A higher P/E ratio suggests that investors have more faith in the company's future. While Jyoti Spinning's average total cost of capital and cost of equity

are negative, there is a positive association between Nepal level and Bottlers Nepal, and other Nepal lever spinning. The correlation coefficient shows a negative relationship between EBIT and net profit for Jyoti spinning mills and Nepal lever Ltd., but a positive correlation for Bottlers Nepal Ltd. There is a positive association between EBT and net profit for Jyoti Spinning Mills and Nepal Liver Ltd, whereas there is a negative correlation for Bottlers Nepal Ltd.

Shah (2016) examined how capital structure affected the performance of 25 cement companies that were listed between 2009 and 2013 on the Karachi Stock Exchange. Given that debt accounts for about 64.51 percent of cement businesses' total assets, descriptive statistics results indicate that cement companies have performed poorly. This study's correlation results show that debt and equity have a negative association, while debt and firm performance variables (ROA & ROE) have a negative relationship. Additionally, the findings of the regression show that the capital structure has a big influence on how well a corporation performs. The study concludes that capital structure has a considerable impact on a firm's performance based on empirical literature and findings. Financial analysts and managers should exercise caution when using debt as a source of financing, even though businesses typically rely on it because there is a nearly inverse link between capital structure and firm performance.

Bhattarai (2017) studied how a manufacturing business listed on the Nepal Stock Exchange performed in relation to its capital structure. Eight manufacturing companies' secondary data were gathered from their public annual reports and financial statements for the previous ten years. The multiple regression analysis's conclusion indicates that there is a substantial inverse association between capital structure and the manufacturing enterprises' performance in Nepal. Apart from capital structure, there is a considerable positive correlation between the size of the company and its success, but a negative correlation between it with tangibility.

Dhodary (2018) carried out the capital structure analysis for non-financial Nepalese businesses. The primary data for the study are used. For this study, a descriptive research strategy has been chosen. A variety of descriptive statistical metrics, including the coefficient of variation, minimum, maximum, percentage, average, and standard deviation, have been employed in investigations. The goal of this study is to investigate

Nepalese non-financial enterprises' capital structure policies. By distributing a multi-part questionnaire with a well-structured, the board of directors, company secretary, executives, chief financial officers, and other line managers were asked for their perspectives. This provided the primary information needed for the stated goal. Ninety questionnaires were distributed using non-probabilistic sampling to respondents residing in Kathmandu for the field survey. The results of the survey indicate that the choice of Nepalese non-financial enterprises for different borrowing maturity structures varies, and most of them do not take interest rates or the practice of matching the structure of their assets and liabilities into account when borrowing money. Companies should focus on this element since it is necessary for the structure of assets and liabilities to align properly. The creation of these targets is mostly unaffected by external security analysts and comparable industry.

Panthi (2018) conducted a case study on Unilever Nepal Limited and Bottlers Nepal Ltd. The primary goal of the research is to assess how the chosen firms manage their capital structures. The study's specific goals were to look at the capital structures of Bottlers Nepal Limited and Unilever Nepal Limited as well as to calculate the cost and return on capital. In this study, an analytical and descriptive research design has been used. The financial position was measured using a variety of financial instruments. The main conclusions were that the DOL averages for BNL and UNL are 3.29 and 1.72, respectively. In contrast to the BNL and UNL, the UNL's DOL is fairly good. The company is riskier as shown by the greater DOL. UNL's average DFL is 3.12 times, while UNL's is just 1.21 times. As a result, the UNL has a higher DFL than the UNL. UNL has no long-term debt, as evidenced by the fact that its average long-term debt to total debt ratio is 0. The average percentage of long-term debt to total debt for BNL is 12.448.For both the UNL and the BNL, the average debt to total asset ratio is greater than 50, or 63.29 and 54.48, respectively. According to the ratio's statistic, this condition suggests that the loan amount for asset financing is relatively significant. For UNL and BNL, the average ratio of shareholders' equity to total assets is 62.65 and 47.31, respectively. According to such numbers, the outsider's fund finances more than 50% of the assets.

Miko and Para (2019) accomplished research on how Nigerian manufacturing companies' profitability is affected by their financial structure. 39 manufacturing

companies that are listed on the Nigerian Stock Exchange are included in the study's sample size. The Ordinary Least Squares regression technique was used to evaluate the data. The findings showed that the profitability of Nigerian manufacturing companies is significantly impacted by loan, equity, and debt to equity financing. The study comes to the conclusion that financial structure has a significant impact on how well manufacturing companies listed in Nigeria perform. According to the report, management should appropriately handle their debt in order to boost profitability.

Lamichhane (2019) studied how listed manufacturing businesses' capital structures affect their profitability. Nepalese manufacturers are not operating efficiently. Big businesses have shut down in droves, and some more are set to follow. The majority of businesses can turn a profit, but their profit margins are quite narrow. This industry has had unequal growth over the years because of a number of factors, including a long-standing lack of readiness to absorb new technologies, inadequate infrastructure, a lack of power, a blocked political process, challenging trading conditions, COVID, international competition, and a worldwide economic crisis. Furthermore, Nepali manufacturing is mostly dependent on labor-intensive local raw materials.

Wu (2019) conducted goal was to determine the connection between American manufacturing companies' profitability and capital structure. For this study, historical data from the 36 audited financial reports of a sample of 15 U.S. industrial companies were gathered from 2009 to 2018. Regression models of capital structure and profitability ratios were empirically built using panel analysis approaches. The outcome showed that the capital structure is essential to the underlying organization's overall profitability. In particular, the Return on Invested Capital and Return on Assets metrics showed a strong and positive relationship between the Coverage Ratio and profitability. There was a strong negative correlation between profitability and both the total debt to equity and total debt to tangible asset ratios. Profitability was positively impacted by firm size as a control variable. As a result, there was a significant relationship between the capital structure of US industrial enterprises and profitability.

Raman, Sharker and Uddinj (2019) analyzed how capital structure affects the profitability of Bangladeshi manufacturing companies that are publicly traded. The connection between independent variables (debt, equity, and debt to equity ratios) and

dependent variables (return on asset, return on equity, and earnings per share) was determined in this study using fixed effect regression. According to this study, ROA is significantly impacted positively by the debt to equity ratio but negatively by the debt to ratio. Additionally revealed in this article is the fact that while the debt to equity ratio significantly reduces ROE, the equity ratio significantly increases it. Last but not least, the debt to equity ratio significantly lowers EPS.

Hajisaaid (2020) examined the research on the relationship between capital structure and profitability of eight Saudi Arabian businesses engaged in the production of basic materials from 2009 to 2018. Regression analysis, the fixed effect model, the random effect model, and the Housman test are the statistical methods employed. The ROE is the dependent variable. In contrast, independent variables are a short-term debt to total assets ratio (SDA), long-term debt to total assets ratio (LDA), and total debt to total assets ratio (DA). The results illustrate a negative relationship between short-term debt to total assets ratio (SDA) and return in equity ratio (ROE). A negative relationship between long-term debt to total assets ratio (LDA) and return in equity ratio (ROE), and positive relationship between total debt (DA) and profitability.

Ngoc, Tien, and Thu (2021) investigated the effect of capital structure on profitability (as measured by ROA and ROE indicators) for 30 logistics companies listed on the Ho Chi Minh City Stock Exchange (HOSE) between 2012 and 2019. By using the quantitative approach (with models of Pool OLS, FEM, REM, and FGLS), the study's findings have demonstrated that capital structure negatively affects a company's profitability, as measured by its return on assets (ROA). The analysis could not find any statistical evidence to demonstrate the impact of the capital structure of logistics companies during this time period on profitability, as measured by ROE.

Basnet (2021) examined organizations profitability is the key factor for gaining sustainability. Capital structure is a crucial aspect in achieving profitability, and it is necessary to have an appropriate capital structure. The choice between debt and equity financing has an impact on the company's entire financing strategy, necessitating a careful balance to properly manage risk and shareholder returns. An efficient capital structure, which includes a reasonable balance of debt and equity, can optimize shareholder value and ultimately add to their wealth. The study relies on secondary data obtained from the yearly financial reports of the sampled companies. The researcher

evaluated the association between capital structure and profitability using five years of data obtained from five Nepalese manufacturing companies listed on NEPSE. The researcher identifies manufacturing companies with debt-equity ratios that are lower than the industry average. ROE is determined to be above average. On the other hand, ROA, NPR, and OPR positions were determined to be below average. The debt ratio was found to have a negative association with ROE, ROA, NPR, and OPR. Similarly, the debt-equity ratio is negatively correlated with ROE and ROA, but significantly negatively correlated with NPR and OPR. The second hypothesis test indicates that there is no significant difference in ROE across company size groups, although ROA, NPR, and OPR differ amongst firms of different sizes.

Habibniya (2022) assessed research into the effect of capital structure on profitability. Debt finance is commonly associated with financial risk when utilized as a source of capital, but it is also considered as a source of increased profitability in the context of ordinary business operations. Finding the ideal debt-to-equity ratio has never been simple. The US telecom industry sample had an abnormally high ratio of total liabilities to total assets. It is thus oriented to explore how capital structure (CapSt) influences firm profitability. Pooled panel regression, univariate analysis, correlation, and descriptive statistics models were applied to imbalanced cross sectional data (panel data), which comprised 421 firm-year observations for 72 firms, using annual data from the telecom industry in the United States from 2012 to 2020. An analysis was conducted to determine how CapSt (Total Liabilities to Total Assets (TLsTAs) and Total Equity to Total Assets (TETAs)) affected the profitability (ROA and ROE) of corporations in the US telecoms sector. The findings show that ROA is significantly impacted by both TETAs and the ratio of TLsTAs to TETAs. TLsTAs and TETAs, however, have no bearing on ROE.

Shrestha (2023) studied the relationship between Dabur Nepal Private Limited's profitability and capital structure. Descriptive statistics, Pearson correlation, regression analysis, and t-test were used to complete the data analysis. Out of ten sample sizes, one (1) sample size was analyzed using secondary data that covered private multinational manufacturing enterprises in Nepal from 2013 to 2022. The debt-to-equity ratio (DER), debt-to-capital ratio (DCR), debt-to-total-assets ratio (DTAR), equity-to-total-assets ratio (ETAR), short-term liability to total assets ratio (SLTAR), and profitability, including

return on assets (ROA), are all represented by the capital structure. The study's conclusions demonstrated a lower positive correlation between the dependent variable and the set of independent variables, with a R square value of 0.537, indicating that 53.7% of the variation in the dependent variable is explained by the independent variables and 46.3% is explained by variables outside the model. The outcome demonstrated that the effects of DER, DCR, DTA, ETA, and SLTA on Dabur Nepal Pvt. Ltd.'s ROE are negligible.

Thapa and Khadka (2023) evaluated how capital structure affects the profitability of Nepalese manufacturing firms, using Sarbottam Cement Nepal as a case study. Financial information from the company's financial statements was used, and a quantitative study methodology was used. Debt to total assets, debt to total equity, return on total assets, return on equity, and net profit margin were the primary financial ratios examined. We used regression analysis to look at the connections between these factors. The results of the ratio study showed variations and inconsistent performance over time in Sarbottam Cement Nepal's profitability, liquidity, and debt management. While the debt-to-assets ratio stayed mostly steady, the debt-to-equity ratio fluctuated. Returns on assets and equity showed different patterns, with profits increasing up to a downturn in the last several years. A tight profit margin was indicated by the net profit margin, which remained generally low. Over time, liquidity stayed consistent. The debt-to-assets and debt-to-equity ratios did not significantly affect return on equity, according to the results of the regression study. In the same way, the return on assets was not substantially impacted by these ratios. Additionally, there were no statistically significant correlations found between liquidity and size and return on assets and return on equity. The independent factors and the profitability indicators of the Sarbottam Cement manufacturing company did not show any discernible correlation.

Lyubo and Heshmati (2023) investigated the effects of the global economic crisis in 2008 and the Asian financial crisis in 1997 on the capital structures of Korean non-financial listed enterprises. The study examines the capital structure patterns of 1,159 Korean listed non-financial enterprises from 10 industrial sectors during a 31-year period (1985–2015) using panel data. It also determines the firms' rates of adjustment toward the optimal leverage. The two crises had differing consequences on capital structures and adjustment speeds, according to this analysis. Following the Asian financial crisis of

1997, the average debt ratio experienced a notable decline. After the Asian crisis, the gap between the ideal and observed debt ratios narrowed, but the rate of adjustment doubled. The global financial crisis of 2008, in contrast to the Asian financial crisis, had a favorable impact on the debt ratios of businesses and the rates at which they adjusted toward the ideal leverage. Our empirical study reveals that during the course of the observation period, the non-financial listed Korean companies reduced their debt ratios on average; the leverage was highest prior to the Asian financial crisis and lowest subsequent to the global economic crisis. Additionally, our data demonstrates that Korean chaebols had greater debt ratios than non-chaebols. Furthermore, we discover that tangible assets, income volatility, firm size and age, non-debt tax shield, and distinctiveness were all linked to the high amount of leverage exhibited by Korean enterprises.

Anas, et al (2024) assessed whether the capital structure of the business, more especially its long-term debt to equity ratio and debt to asset ratio, influences the company's corporate income tax burden in part and simultaneously. 56 manufacturing companies in the consumer products sector that met predetermined criteria and were listed on the Indonesia Stock Exchange between 2019 and 2022 were selected for the study using a purposeful sampling technique. Eviews 12 was utilized along with panel data regression analysis as the data analysis method. The Fixed Effect Model (FEM) was the employee regression model that was tested using the conventional assumption test, T test, F test, and R-Squared test. The test results obtained using the t test showed that the Long Term Debt to Asset Ratio (LDAR) had no effect on the amount of corporate income tax that the firm had to pay, indicating that the study's initial hypothesis was rejected. The second hypothesis of the study, which states that the Debt to Equity Ratio (DER) affects the company's corporate income tax liability, is accepted. Meanwhile, the F test shows how the debt to equity ratio (DER) and long-term debt to asset ratio (LDAR) together affect the amount of corporate income tax that must be paid.

Özdemir, and Özel (2024) analyzed the connection between the capital structure and profitability levels of Turkish manufacturing enterprises that operated from 2006 to 2020. Using Driscoll and Kraay's (1998) standard error estimator, the relationship between capital structure and profitability of Turkish manufacturing industry enterprises was examined. Sub-panel data models were developed in this context. The results

demonstrated a negative correlation between changes in the manufacturing sector's capital structure (short-term, long-term, and total debt) and return on equity and assets. It is anticipated that this study will add to the body of knowledge by providing a clearer understanding of the relationship between the capital structure decisions made by manufacturing companies operating in Turkey and their return on equity and return on assets, while also accounting for their sub-sectors.

Yunita, Ridloah and Humaira (2024) investigated how profitability and capital structure affect a company's value. The manufacturing businesses in the food and beverage subsector that are listed on the Indonesia Stock Exchange for the 2017–2021 period make up the population of this study. Purposive sampling was used to choose 33 companies for the sample, resulting in 165 data observations. Panel data regression analysis was employed in the data analysis process, and Eviews 10 was used as the analytical tool. The study's findings show that while profitability (ROE) has a positive and significant impact on company value, capital structure (DER) has a negative and significant impact. If a firm's share price rises, its value will directly affect the greatest prosperity for its shareholders. Its value also reflects how well-known the company is in the public eye.

Nguyen, Pham and Nguyen (2024) analyzed the relationship between profitability and debt structure. A notable example of an early publication is the Modigliani and Miller (1958) study. The goal of this study is to add to the body of knowledge and empirical evidence on this subject by examining the effect of debt structure on the profitability of non-financial listed joint-stock companies (JSCs) in Vietnam. Using panel data covering 976 JSCs across an eight-year period (2013–2020), we get a sample of 7,808 observations. Two metrics used to quantify profitability are return on equity (ROE) and return on assets (ROA), which are dependent variables. The relationship between profitability and the other six independent variables is examined using Stata 16 software. The outcome demonstrates that growth opportunities (GRTH) and short-term debt (STDA) have a favorable and statistically significant impact on ROE and ROA. In the meanwhile, the effects of total debt (TDA) and long-term debt (LTDA) are contrary. Net sales growth (SG) shows an insignificant statistical relationship with profitability, but firm size (SIZ) has distinct substantial statistical effects on these dependent variables. Based on the results, some suggestions are made to improve the listed companies'

profitability by optimizing their debt structure in a growing nation, with Vietnam serving as the case study.

Table 1

*Summary of Review*

| S.N | Author(s) | Variables | Methods | Major Findings |
|---|---|---|---|---|
| **1.** | Sultan and Adam (2015) | Independent variables (debt ratio, equity ratio and debt to equity ratio) and dependent variables(ROA, ROE & EPS) | Statistical methods such as multiple regression models. | The study findings suggest that capital structure positively influence, in a significant way, on the profitability of listed firms in Iraq. |
| **2.** | Shah (2016) | Debt to assets and (GPM, NPM, and ROA & ROE). Debt to equity | Descriptive statistics. | Findings the study concludes that there is a significant impact of capital structure on firm's performance. |
| **3.** | Bhattarai (2017) | Capital structure (debt to assets ,debt to equity) profitability of firms (ROA, ROE) | Multiple regression analysis | The study finding informs that capital structure has a significant negative relationship with the performance of the Nepalese manufacturing companies. In addition to capital structure, the firm performance is significantly positively associated to the firm size but negatively associated to the tangibility. |
| **4.** | Panthi (2018) | DOL, DFL, long-term debt, total debt, shareholder- | Descriptive and analytical research design. | The major findings were the average of DOL for UNL and BNL are 1.72 and 3.29 |

| | | | | |
|---|---|---|---|---|
| | | equity and total assets. | | respectively. As compare to the UNL and BNL, the DOL for UNL is quite good. The higher DOL indicates the riskiness of the company. The average DFL of UNL is 3.12 times whereas for UNL is 1.21 times only. This shows the UNL has greater DFL than UNL. The average of long-term debt as a percentage of total debt for UNL is zero, which means UNL has no long-term debt. For BNL long-term debt as a percentage of total debt in average is 12.448 respectively. |
| **5.** | Miko and Para (2019) | Debt finance, equity finance and debt to equity finance. | The data were analyzed using Ordinary Least Square regression technique. | The result revealed that debt finance, equity finance and debt to equity finance have significant impact on the profitability of manufacturing firms in Nigeria. |
| **6.** | Wu (2019) | Return on Assets, and Return on Invested Capital. Total Debt to Equity and Total Debt to Tangible Assets ratios. | Applying the panel analysis techniques. | The result revealed that the capital structure plays a vital role in the overall profitability of underlying organization. |
| **7.** | Raman, Sharker and Uddinj (2019) | Debt ratio, equity ratio and debt to equity ratio and | They applied the fixed effect regression. | The result suggested that the debt ratio and equity ratio have a significant positive impact but |

| | | | | |
|---|---|---|---|---|
| | | return on asset, return on equity and earnings per share. | | debt to equity ratio has a significant negative impact on ROA. |
| **8.** | Hajisaaid (2020) | ROE, SDA, LDA and DA. | The statistical techniques used are regression analysis, fixed effect model, random effect model, and Housman test | The results illustrate a negative relationship between long-term debt to total assets ratio (LDA) and return in equity ratio (ROE), and positive relationship between total debt (DA) and profitability. |
| **9.** | Ngoc, Tien and Thu, (2021) | ROE, ROA and short-term debt to total assets, long-term liabilities to total assets, total liabilities to total assets | Applying the quantitative method (with models of Pool OLS, FEM, REM and FGLS. | The research results have proven that capital structure has a negative impact on profitability represented by ROA of firms. |
| **10.** | Habibniya, (2022) | CapSt(TotalL Liabilities to Total Assets (TLsTAs) and Total Equity to Total Assets (TETAs)) on the profitability (Return on Assets (ROA) and Return on Equity (ROE). | Pooled panel regression, univariate analysis, correlation, and descriptive statistics models were applied. | The finding indicate that both the ratio of TLsTAs to TETAs and TETAs have a significant impact on ROA. TLsTAs and TETAs have no effect on ROE, however. |

| | | | | |
|---|---|---|---|---|
| **11.** | Shrestha (2023) | DER, DCR, DTAR, Equity to Total Assets Ratio (ETAR), (SLTAR) (ROA). | Descriptive statistics, Pearson correlation, regression analysis, and t-test. | The result showed that there is an insignificant impact of DER, DCR, DTA, ETA, and SLTA on ROE of Dabur Nepal Pvt. Ltd. |
| **12.** | Thapa,Thapa and Khadka (2023) | Debt to total assets, debt to total equity, return on total assets, return on equity, and net profit margin. | Quantitative research design and Regression analysis was adopted. | The findings of the ratio analysis revealed fluctuations and mixed performance in the debt management, profitability, and liquidity of Sarbottam Cement Nepal over the years. |
| **13.** | Lyubo and Heshmati, (2023) | Capital structures and adjustment speeds. And the optimal leverage. | Using a panel data covering 1,159 Korean listed non-financial firms from 10 industrial sectors over a 31-year period (1985–2015) | This study finds different effects of the two crises on both capital structures and adjustment speeds. The average debt ratio fell significantly after the 1997 Asian financial crisis. The distance between the optimal and the observed debt ratios shrank after the Asian crisis, while the speed of adjustment increased two-fold. |

| | | | | |
|---|---|---|---|---|
| **14.** | (Özdemir and Özel, (2024) | Capital structure (short-term debt, long-term debt, and total debt) profitability (return on assets and return on equity). | Using the standard error estimator proposed by Driscoll and Kraay (1998). In this context, sub-panel data models were created. | The findings showed that capital structure changes (short-term debt, long-term debt, and total debt) in the manufacturing industry are negatively related to both return on assets and return on equity. |
| **15.** | Yunita,Ridloah, and Humaira, (2024) | capital structure (DER) and profitability (ROE) | The data analysis method used panel data regression analysis with an analytical tool in the form of Eviews 10. | The results of this study indicate that capital structure (DER) has a negative and significant effect on firm value, then profitability (ROE) has a positive and significant effect on firm value. |
| **16.** | Nguyen, Pham and Nguyen( 2024) | Return on assets (ROA) and return on equity (ROE) Debt Structure, Long-Term Debt, Profitability, Short-Term Debt, and Total Debt | By using the panel data of an eight-year period for 976 JSCs, from 2013 to 2020, we get a sample of 7,808 observations. Stata 16 software is used to test the link between profitability and the other six independent variables. | The result shows that short-term debt (STDA) and growth opportunities (GRTH) have their positive and significant statistical impact on both ROA and ROE. Meanwhile, total debt (TDA) and long-term debt (LTDA) have their opposite influences. Firm size (SIZ) has different significant statistical effects on these dependent variables and net sales growth (SG) has an insignificant statistical link on profitability. |

| | | | | |
|---|---|---|---|---|
| **17.** | Anas,et al.(2024) | Capital Structure, Corporate Income Tax Payable, Debt To Equity Ratio, Long-term Debt To Asset Ratio, Purposive Sampling | Panel data regression analysis was used as the data analysis approach, and Eviews 12 was used. | According to the test findings obtained using the t test which indicated that the initial hypothesis of this study was rejected. The study's second hypothesis, according to which the company's corporate income tax liability is impacted by the Debt to Equity Ratio (DER), is accepted. |

### 2.3 Research Gap

All of the above studies reviewed have concentrated mainly on how the capital structure should be, or how much the company should earn the profit, but none of these have put effort to find out the relationship between capital structure and profitability. To fulfill such gap, the present study has been conducted to illuminate the capital structure and profitability impact practices of manufacturing companies in Nepal, along with the capital structure of the company, and the profitability position. During review of literature, there was found most of the research is done considering capital structure and profitability for banking sectors rather than manufacturing company. Very few studies are done by considering net profit margin as dependent variable but study use net profit margin as dependent variable and conduct the analysis both profitability and capital structure of manufacturing companies as well. This study also aims to identify challenges, analyze causes and propose improvement measures to enhance the performance of manufacturing companies under study.

# Chapter III
# Research Methodology

This chapter covers research design, population and sample, sampling design, data nature and sources, data collection tools, research framework, variable definitions, and analytic techniques.

## 3.1 Research Design

This study makes an effort to critically analyze manufacturing firms that are listed on the NEPSE. The purpose of this study is to compare and determine the link between two or more variables. Descriptive and causal-comparative research designs have been used for the study in order to meet its unique goal. Profitability and capital structure patterns are examined using a descriptive design. In order to determine the cause and effect link between capital structure and firm efficiency of Nepalese manufacturing enterprises, the study also used a causal comparative research approach.

## 3.2 Population, sample and sampling design

There are currently 19 manufacturing and processing businesses in operation in Nepal (www.investopaper.com 2022). They make up the populace. Out of the 19 manufacturing companies in Nepal, data have been gathered from 4 that have routinely traded on NEPSE. The methodology of this study is non-probability sampling. In this study, the purposive sampling method is employed. It suggests that it is impossible to determine if the sample accurately represents the total population. It cannot therefore yield conclusions that are generalized. Four manufacturing companies have been chosen as the sample size for the study of capital structure and profitability of manufacturing companies. These companies are Bottlers Nepal Limited (Balaju) BNL, Himalayan Distillery Limited HDL, Unilever Nepal Limited – UNL, and Nepal Lube Oil Limited NLOL. Not every company trades on the market on a regular basis. The only companies included for the study's sample are those that are regularly traded in accordance with NEPSE regulations.

**Nature and Source of Data, and Instruments of Data collection**

To achieve the goals of this study, quantitative data have been used. The study's primary source of secondary data was the internet, where yearly reports released by relevant organizations were found by visiting their websites. The primary sources of secondary data include the firm website, the Nepal Stock Exchange (NEPSE), the Security Board of Nepal, and the brochures of the relevant enterprises. Various methods and instruments are used in the data collection and processing phases of the research. The information from every secondary source is required to carry out this investigation. The degree of precision of the data retained by the sample companies in their individual report or account determines the degree of validity and reliability of the data utilized for the study. Cross-referencing the source, though, allows for data assurance. Data collection sheets were used to gather data, which was then edited, processed, and rearranged to meet the needs of the study. A calculator, Microsoft Excel, and SPSS software are used for data analysis. Using SPSS software, the gathered data are entered, and descriptive, correlational, and regression analysis is performed in accordance with the study's requirements.

**Method of Analysis**

In order to improve the study's specificity and dependability, the researcher employs the following kinds of analytical techniques. The thesis will address and contain the financial and statistical methods required to analyze the data and get a conclusion from the investigation.

**Financial tools**

Financial instruments are essential for evaluating any company's performance. The profitability ratio and leverage ratio were employed as financial tools in this investigation. A company's leverage ratio is used to determine how much debt it has. The leverage ratio looks at two types of capital: debt and an assessment of a company's ability to pay its debts. The two most common leverage ratios are debt-to-equity and debt-to-assets. The leverage ratio is computed as follows in this study:

- **Debt to total assets ratio:** The ratio of total assets to debt serves as a gauge for financial leverage. It displays the proportion of total assets financed by debt, liabilities, and creditors. It is calculated as:

Debt to total assets = $\frac{Total\ debt}{Total\ assets}$

- **Total debt to equity ratio:** Utilizing the debt to equity ratio, one may assess the financial leverage of an organization. It shows how much debt a business is employing in relation to the value represented by shareholders' equity to finance its assets. It is computed as:

Total debt to equity ratio = $\frac{Total\ debt}{Total\ share\ holders\ equity}$

A collection of financial indicators known as profitability ratios is used to assess a company's capacity to make a profit relative to its costs and other relevant costs incurred during a specific time period. It offers definitive responses about how well the company is managed. In this study, the profitability ratios indicated below are computed.

- **Return on Total Assets (ROA**):

  The productivity of the assets is gauged by return on total assets, or simply return on assets. This ratio assesses how well the entire amount provided by the creditors and owners was used. ROA is computed as follows;

Return on Total Assets = $\frac{\text{Net profit}}{\text{Total assets}}$

- **Return on Equity (ROE**): A company's profitability is correlated with its shareholders' equity through return on equity. Return on Equity (ROE) calculates the profitability of the company by returning equity to shareholders. ROE is computed as follows;

  Return on Equity = $\frac{Net\ profit}{Share\ \text{holders}\ equity}$

- **Net Profit Margin**: The profit margin of managers serves as a proxy for their ability to generate operating revenue. The net profit margin is the percentage of remuneration that remains after all costs have been paid to the owners for their capital contributions. It aids in assessing the effectiveness with which the business's operations are managed. While a low ratio will have the opposite effect, a large net profit margin will assist the business weather challenging economic situations.

  Net Profit Margin = $\frac{Net\ Profit}{Total\ Sales}$

**Statistical Tools:**

For the goal of data analysis, the study employed mixed statistical methods, which combine descriptive and inferential statistics. The data set and the status of corporate financial leverage among the enterprises under study have been described using a variety of descriptive statistics, including mean, standard deviation, coefficient of variation, and correlation coefficient. These tools have been applied to secondary data analysis.

**Descriptive Analysis**

**Mean:** The term "mean" refers to a set of numbers and provides information about how concentrated the values are in the middle of the distribution. We can determine the point that best represents the data by calculating the average. It is calculated by dividing the total number of observations by their sum.

Mathematically, Mean **(**$\bar{X}$) = $\frac{\sum X}{n}$

**Standard Deviation:** A statistical measure of a return distribution's variability around its mean is called the standard deviation. It measures the unsystematic risk and is equal to the variance squared. A low standard deviation indicates a high level of observational uniformity.

Standard deviation **(**$\boldsymbol{\sigma}$**)** = $\sqrt{\frac{(X-\overline{X})}{n-1}^2}$

**Coefficient of Variation:** The coefficient of standard deviation is the relative measure of dispersion based on standard deviation, while the coefficient of variation is the coefficient of standard deviation multiplied by 100. It is indicated by C.V.

C.V. = $\frac{\sigma}{\bar{X}}$

Where,

$\sigma$ = Standard Deviation, $\bar{X}$ = Mean Value of Variables

**Correlation Coefficient:** A correlation coefficient represents the proportional magnitude of the co-movements among variables. It is the process of measuring how two or more variables have a linear connection. It has values in the range of -1 to +1.

Correlation coefficient (r) = $\frac{n\sum XY - \sum X.\sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$

**Multiple Regressions Analysis**

Regression analysis is a statistical procedure used in statistical modeling to estimate the relationship between variables. It encompasses a variety of modeling and analytic techniques for many variables as well as one or more independent variables. Regression analysis is a statistical tool used to determine the average relationship, expressed in terms of the original data unit, between two or more variables. Finding out more about the link between a number of independent or predictor factors and a dependent criteria variable is the main goal of multiple regression analysis. Return on assets, return on equity, and net profit margin are the dependent variables in this study, and the independent factors are the debt-to-total-assets ratio, the debt-to-assets ratio over the long period, and the debt-to-assets ratio.

The line of regression is Y= a + bx

Multiple Regression Model

ROA = a + b1 (LTDTA) + b2 (TDTA) + b3 (TDTE)

ROE = a + b1 (LTDTA) + b2 (TDTA) + b3 (TDTE)

NPM = a + b1 (LTDTA) + b2 (TDTA) + b3 (TDTE)

Whereas,

a = Constant, $b1$, $b2$, b3 = Regression Coefficient

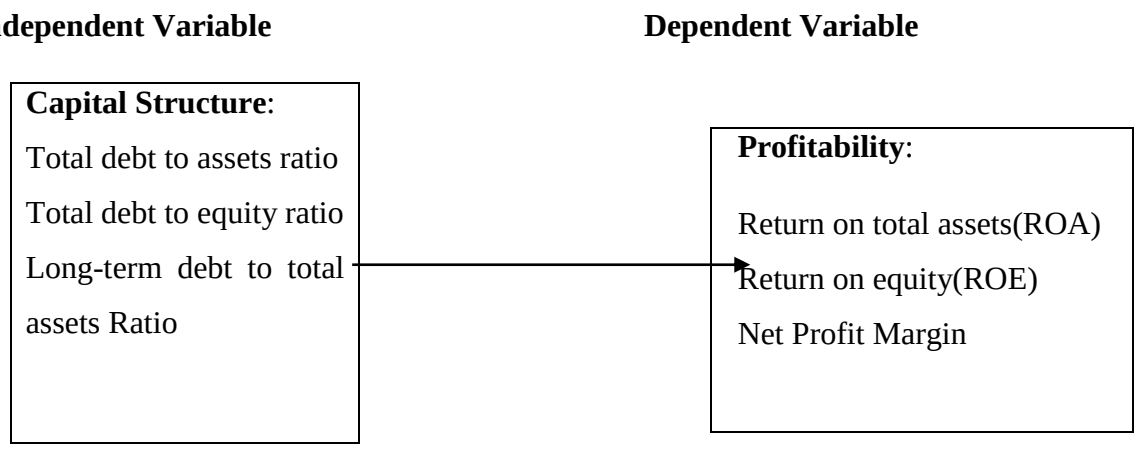
LTDTA = Long-term debt to total assets, TDTA = Total Debt to total assets Ratio

TDTE = Total Debt Equity Ratio

**3.3 Research Framework and Definition of the Variables**

The researcher develops the following conceptual framework for the study based on reviews of the theoretical and empirical literature.

*Research Framework: Figure 1*




*Source: Kajananthan and Nimalthasan (2013), Fred (2015)*

**Independent Variables**

**Capital Structure**

A company's long-term debt, short-term debt, common equity, and preferred equity can all be a part of its capital structure. When examining a company's capital structure, the percentage of short- and long-term debt is taken into account.

**Total debt to assets ratio**

A leverage ratio called total debt to total assets indicates how much debt there is overall in relation to assets. Leverage comparisons between several companies are made possible by these metrics. The degree of leverage and, thus, financial risk increase with the ratio. Rajakumaran and Yogendrarajah (2015) found that there was a positive and moderate correlation between the debt to total assets ratio and the gross profit ratio, and a negative and moderate correlation with the net profit ratio.

**Total debt to equity ratio**

A company's financial leverage is determined by looking at its debt to equity ratio. It shows the proportion of debt used by a business to fund its assets to the value represented by shareholders' equity. Rajakumaran and Yogendrarajah (2015) found that the debt-to-equity ratio had a positive and moderate correlation with the gross profit ratio and a negative and moderate correlation with the net profit ratio.

**Long-term Debt to Total Assets Ratio**: The percentage of a company's assets that are financed by loans or other financial commitments that last longer than a year is represented by the long-term debt to total assets ratio.

**Dependent Variables**

**Profitability**

A group of financial measurements known as profitability ratios are used to evaluate a company's capacity to turn a profit in comparison to its overhead. For the majority of these ratios, the company is performing well if its value is higher than that of its competitors' ratios or higher than that of the same ratio from a prior time.

**Return on Total Assets (ROA**)

The net income on each rupee of assets is measured by return on assets. This ratio calculates the total return on asset investments. The ratio of net income to total assets is used to compute return on assets. It demonstrates the banks' effectiveness in making money by making use of their assets. It has been discovered that the variables with negligible correlations have been subjected to additional processing for analysis by Rahman, Sarker and Uddin (2019)

**Return on Equity (ROE**)

Net profit after taxes is divided by shareholder equity, which is determined by net worth, to get return on equity. It is an indicator of how effectively management has managed the money that shareholders have contributed. Ashraf, Amen, and Shahzadi (2017) claim that there is a statistically significant negative correlation between return on equity (ROE) and the debt ratio, particularly the long-term debt ratio.

**Net Profit Margin (NPM)**

The amount of profit margin indicates how successfully management has produced operational revenue. Net profit margin is the percentage that remains to be paid to the owners for their capital contributions after all costs have been covered. It aids in assessing how effectively the company's issues are being managed.

# Chapter IV
# Results And Discussion

The primary goal of this study is to look at how capital structure and profitability affect manufacturing enterprises in Nepal, as the researcher covered in the earlier chapters. As a result, this chapter, which is divided into three sections, deals with the findings and their analysis. The capital structure and profitability positions, together with a descriptive and correlation analysis of the study's variables, were presented in the first section. The assumptions of the linear regression model were fulfilled in the second section, and the discussion was laid out in the third. For additional statistical analysis, the data analysis techniques utilized for ratio scale measurement and the ratio of the designated dependent and independent variables were computed.

## 4.1 Results

This chapter attempts to examine capital structure and how it affects the chosen manufacturing company's profitability. Major factors influencing capital structure are taken into account and analyzed for this. Organizing, tabulating, and evaluating financial and statistical results comprise data analysis.

### Position of capital structure and profitability

The purpose of this study was to determine the relationship between profitability and capital structure. The ratios of total debt to equity, total debt to assets, and long-term debt to assets have all been used to assess the capital structure. ROA, ROE, and NPM have been used to measure profitability. This section presents the findings on these ratios. Under this analysis, the annual report of selected manufacturing companies since 2076 to 2080 and other essential data available from different organization has been presented with the help of table.

### i) Individual position of Total debt to total assets:

By dividing the total outsider's fund by the total assets, the ratio is computed. The debt-to-asset ratio indicates the amount of debt financing relative to the total assets and gauges the level of financial security for creditors or outsiders. Despite of higher risk, owners of the firm prefer a high debt ratio because it magnifies their earnings on one

hand and enables them to maintain their concentrated control over the companies The debt to total assets ratio of the selected companies over the period are tabulated below.

Table 2
*Total Debt to Assets Ratios*

| F/Y | BNL | HDL | UNL | NLOL |
|---|---|---|---|---|
| 2079/80 | 0.2 | 0.01 | 0.4 | 0.1 |
| 2078/79 | 0.1 | 0.013 | 0.3 | 0.2 |
| 2077/78 | 0.2 | 0.02 | 0.2 | 0.4 |
| 2076/77 | 0.1 | 0.1 | 0.3 | 0.1 |
| 2075/76 | 0.1 | 0.14 | 0.4 | 0.3 |
| 2074/75 | 0.62 | 0.29 | 0.4 | 0.67 |
| 2073/74 | 0.6 | 0.42 | 0.33 | 0.68 |
| 2072/73 | 0.64 | 0.68 | 0.34 | 0.67 |
| 2071/72 | 0.61 | 0.64 | 0.36 | 0.6 |
| 2070/71 | 0.56 | 1.77 | 0.37 | 0.73 |
| Mean | 0.373 | 0.4083 | 0.34 | 0.445 |
| S.D. | 0.058 | 0.04 | 0.08 | 0.14 |
| C.V. | 15.48 | 10.54 | 24.01 | 31.78 |

*Sources: Annual report of shareholders (2071-2080)*

Table 2 reveals that BNL's total debt to total asset ratio runs between 0.2-056 in fiscal years 2079–2080 and 2070–2021, with a 15% coefficient of variation and an average mean of 0.373. Similarly, the HDL's total debt to total assets ratio, with an average mean of 0.408 and a coefficient of variation of 10%, spans from 0.01 to 1.77 between the fiscal years 2079/80 and 2070/71. The UNL total debt to total asset ratio has an average mean of 0.34 and a coefficient of variation of 24%. It ranges from 0.4-0.37 in the fiscal years 2079/80 and 2070/71. Similar to this, the NLOL's total debt to total asset ratio has an average mean of 0.45 and a coefficient of variation of 38%. It ranges from 0.1-0.73 in the fiscal years 2079/80 and 2070/71. HDL has the lowest coefficient of variation and the highest mean of these four companies. UNL, however, has the highest CV and the lowest mean. Because it has a higher mean and a lower CV than the other manufacturing companies that were chosen, the company with the lowest total debt to assets ratio (HDL) is preferred.

ii) **Individual positions of Total debt to total equity:**

The debt to equity ratio is a useful tool for illustrating how owners' capital and borrowed cash are related. It represents the varying claims made by shareholders and creditors against the company's assets. The ratio shows how much capital the business's creditors and owners contributed in relation to the financing of the enterprise. A higher debt to equity ratio indicates that creditors have financed a larger portion of the company's capital than the owners have, or it indicates that creditors have a greater claim against the company's assets and vice versa.

Table 3

*Total Debt to Equity Ratio*

| **Company Name** | **BNL** | **HDL** | **UNL** | **NLOL** |
|---|---|---|---|---|
| **F/Y** | | | | |
| 2079/80 | 0.5 | 0.01 | 0.5 | 0.3 |
| 2078/79 | 0.2 | 0.01 | 0.6 | 0.4 |
| 2077/78 | 0.4 | 0.02 | 0.3 | 0.4 |
| 2076/77 | 0.5 | 0.11 | 0.7 | 0.3 |
| 2075/76 | 0.3 | 0.14 | 0.6 | 0.8 |
| 2074/75 | 1.61 | 0.41 | 0.66 | 2.75 |
| 2073/74 | 0.3 | 0.51 | 0.68 | 2.02 |
| 2072/73 | 1.08 | 0.75 | 0.6 | 2.14 |
| 2071/72 | 1.3 | 0.53 | 0.49 | 1.95 |
| 2070/71 | 1.25 | 1.17 | 0.58 | 1.49 |
| Mean | 0.744 | 0.366 | 0.571 | 1.255 |
| S.D. | 0.52 | 0.38 | 0.12 | 0.92 |
| C.V. | 68.76 | 105.16 | 20.56 | 73.39 |

*Sources: Annual report of shareholders (2071-2080)*

According to Table 3, UNL's debt to equity ratio spans from 0.5-0.58, with an average mean of 0.57 and a 21% coefficient of variance. In a similar vein, BNL's debt to equity ratio spans 0.54 to 1.25, with a 68% coefficient of variation and an average mean of 0.74.With a coefficient of variation of 105% and an average mean of 0.37, the debt to equity ratio of HDL spans a range of 0.01 to 1017. Once more, the debt to equity ratio has a range of 0.3 to 1.49, an average mean of 1.25, and a 73% coefficient of variance. In this case, NLOL has the greatest mean and largest coefficient of variation, while UNL has the lowest mean and lowest CV. Among BNL, NLOL, and HDL, UNL is a more financially sound company since a lower debt to equity ratio is preferred.

**iii) Individual Position of Long term debt to total assets:**

The percentage of a company's assets that are financed by loans or other financial commitments that last longer than a year is shown by the long-term debt to total assets ratio. This ratio offers a broad assessment of a company's long-term financial situation, including its capacity to pay back outstanding loans. A company is considered to be relatively risky and may eventually be unable to pay back its obligations if its long-term debt to assets ratio is high. On the other hand, a low long-term debt to asset ratio may indicate the relative strength of the company.

Table 4

*Long-term Debt Ratio*

| **Company Name** | **BNL** | **HDL** | **UNL** | **NLOL** |
|---|---|---|---|---|
| **F/Y** | | | | |
| 2079/80 | 0.086 | 0.019 | 0.0325 | 0.043 |
| 2078/79 | 0.207 | 0.014 | 0.013 | 0.045 |
| 2077/78 | 0.303 | 0.015 | 0.3 | 0.048 |
| 2076/77 | 0.391 | 0.016 | 0.0036 | 0.077 |
| 2075/76 | 0.265 | 0.023 | 0.0052 | 0.6 |
| 2074/75 | 1.08 | 0.25 | 0.017 | 0.25 |
| 2073/74 | 1.07 | 1.05 | 0.01 | 1.05 |
| 2072/73 | 1.03 | 1.06 | 1.25 | 1.06 |
| 2071/72 | 1.01 | 1.01 | 0.018 | 1.02 |
| 2070/71 | 1.04 | 0.28 | 0.016 | 0.18 |
| Mean | 0.6482 | 0.37 | 0.167 | 0.39 |
| S.D. | 0.13 | 0.01 | 0.142 | 0.24 |
| C.V. | 20.19 | 0.58 | 85.46 | 61.74 |

*Sources: Annual report of shareholders (2071-2080)*

According to Table 4, BNL's long-term debt to total assets ratios for the fiscal years 2079–2080 and 2070–2071 range between 0.086–1.04, with an average mean of 0.65 and a coefficient of variation of 20%. Similarly, the HDL's long-term debt to total assets ratio, with an average mean of 0.37 and a coefficient of variation of 0.58%, spans from 0.019 to 0.28 in the fiscal years 2079/80 and 2070/71. In fiscal years 2079–2080 and 2070–2021, UNL's long-term debt to total assets ratios range from 0.035–0.016, with an average mean of 0.17 and an 85% coefficient of variation. In a similar vein, the long-term debt to total assets ratio of NLOL has an average mean of 0.39 and a coefficient of variation of 62%. It ranges between 0.043-0.18 in fiscal years 2079/80 and 2070/71.

BNL has the lowest coefficient of variation and the highest mean among these four companies. HDL, on the other hand, has the lowest mean and CV. HDL and UNL have the lowest mean values, whereas BNL has a higher mean value of 0.65. In a similar vein, HDL has a lower departure from the mean value and BNL a bigger deviation. The chosen manufacturing company's LDTA ratio exhibits greater consistency in HDL and less uniformity in UNL, according to the coefficient of variance.

iv) **Individual positions of Return on Equity (ROE)**

The amount of net income returned as a percentage of shareholders' equity is known as the return on equity. Return on equity is a metric used to assess a company's profitability that indicates how much profit it makes using the capital that shareholders have invested in it. A high ratio is ideal. Table 5 presents the calculated value of return on equity together with its average, standard deviation, and CV. Data pertaining to net income and total equity of four Nepalese manufacturing enterprises were gathered and entered into an Excel sheet.

Table 5

*Return on Equity*

| **Company Name F/Y** | **BNL** | **HDL** | **UNL** | **NLOL** |
|---|---|---|---|---|
| 2079/80 | 16% | 27% | 42% | 1.50% |
| 2078/79 | 16% | 50% | 42% | 10% |
| 2077/78 | 11% | 71% | 33% | 17% |
| 2076/77 | -2% | 52% | 18% | 4% |
| 2075/76 | 18% | 77% | 45% | 25% |
| 2074/75 | 18% | 54% | 46% | 34% |
| 2073/74 | 30% | 37% | 52% | 29% |
| 2072/73 | 24% | 8% | 47% | 25% |
| 2071/72 | 6% | 40% | 55% | 4% |
| 2070/71 | 13% | 14% | 58% | 33% |
| Mean | 0.15 | 0.43 | 0.438 | 0.1825 |
| S.D. | 0.085 | 0.189 | 0.117 | 0.091 |
| C.V. | 56.67 | 41.901 | 25.88 | 52.77 |

*Source: Annual reports of shareholders (2071-2080)*

Table 5 shows how well manufacturing enterprises mobilize the property of their shareholders to generate profit. According to the table, UNL's manufacturing enterprises had the highest return on equity (58% in the fiscal year 2070–2021) and the lowest

(18%) in the fiscal year 2076–2077. UNL's average return on equity was 0.44, meaning that for every Rs. 100 in shareholder money mobilized, the company was able to create Rs. 44 in net income. The UNL CV is 25%. Additionally, the BNL's return on equity peaked in the fiscal year 2073–2074 at 30% and peaked in the fiscal year 2076–2077 at -2%. BNL's return on equity was 0.15 on average. BNL has a CV of 57The fiscal year 2075–2076 had the highest ROA of 77%, while the fiscal year 2072–2073 had the lowest ROA of 8%. HDL's average return on equity was 0.43, while CV was 41%. The fiscal years 2070–2071 had the highest return on equity (33%), while 2079–2080 had the lowest (1.50%). The CV is 53% and the average return on equity for NLOL was 0.18.When comparing the ROE of sample production companies, it can be shown that HDL has the greatest average ROE (0.18), while BNL and NLOL have the lowest (0.085 and 0.096). This demonstrates that HDL shareholders receive the maximum return, while BNL and NLOL stockholders receive the lowest return that HDL's owners receive the highest return, while BNL and NLOL's stockholders receive the lowest.

**v) Individual positions of return on assets:**

A company's profitability in relation to its total assets is shown by its return on asset. ROA provides insight into how well management uses its resources to produce profits. Determined by dividing the total assets of a corporation by its annual earnings. A high ratio is ideal. Table 6 presents the calculated value of return on assets together with its average and standard deviation. Data pertaining to net income and total assets of four Nepalese manufacturing enterprises were gathered and entered into an Excel sheet.

Table 6

*Return on Assets*

| **Company Name** | **BNL** | **HDL** | **UNL** | **NLOL** |
|---|---|---|---|---|
| **F/Y** | | | | |
| 2079/80 | 7% | 18% | 40% | 8% |
| 2078/79 | 7% | 33% | 30% | 1% |
| 2077/78 | 4% | 45% | 20% | 7% |
| 2076/77 | -1% | 23% | 30% | 4% |
| 2075/76 | 7% | 38% | 40% | 0.60% |
| 2074/75 | 7% | 39% | 28% | 9.00% |
| 2073/74 | 15% | 29% | 31% | 11.00% |
| 2072/73 | 8% | 5% | 29% | 9.00% |
| 2071/72 | 1% | 26% | 37% | 8.00% |
| 2070/71 | 2% | 18% | 25% | 2.00% |
| Mean | 0.057 | 0.274 | 0.31 | 0.0596 |
| S.D. | 0.038 | 0.1198 | 0.082 | 0.034 |
| C.V. | 66.227 | 43.529 | 26.339 | 56.581 |

*Source: Annual reports of shareholders (2071-2080)*

Table 6 shows that the return on assets ratio of selected manufacturing companies for last 10 consecutive years. The returns on assets ratio of selected manufacturing companies are fluctuating trend during the study period. The average rate of return on assets of UNL is 0.31, BNL 0.057, NLOL 0.059, and HDL 0.31. This shows UNL has highest ROA i.e. 0.31 and BNL has lowest ROA i.e. 0.057 over the study period. C.V. measures the variation among variables. The CV of UNL is 26%, BNL 66%, NLOL0 57%, and HDL 43%. It shows BNL has highest CV i.e. 66% which indicates highly fluctuation on ROA and UNL has lowest CV i.e. 26% which indicates more consistency on ROA.

**vi) Individual Positions of Net Profit Margin**

The primary goal of any company entity is to maximize profits. The profit margin ratio can be used to determine the company's profitability. Since the company's profitability and sales revenue are directly correlated, it is obvious that growing the company's sales volume is the only method to increase profit. The data related to net income and sales of five Nepalese manufacturing companies were collected and put them into excel sheet so as to calculate net profit ratio and calculated value of net profit ratio with its average and standard deviation are presented in table 7.

Table 7

*Net Profit Margin*

| **Company Name** | **BNL** | **HDL** | **UNL** | **NLOL** |
|---|---|---|---|---|
| **F/Y** | | | | |
| 2079/80 | 0.167 | 0.22 | 0.22 | 0.015 |
| 2078/79 | 0.154 | 0.26 | 0.21 | 0.058 |
| 2077/78 | 0.156 | 0.28 | 0.15 | 0.015 |
| 2076/77 | -0.0181 | 0.19 | 0.16 | 0.015 |
| 2075/76 | 0.167 | 0.17 | 0.19 | 0.056 |
| 2074/75 | 0.08 | 0.17 | 0.2 | 0.3 |
| 2073/74 | 0.11 | 0.12 | 0.21 | 0.33 |
| 2072/73 | 0.09 | 0.04 | 0.22 | 0.43 |
| 2071/72 | 0.014 | 0.15 | 0.28 | 0.06 |
| 2070/71 | 0.06 | 0.11 | 0.18 | 0.1 |
| Mean | 0.09799 | 0.171 | 0.202 | 0.1379 |
| S.D. | 0.089 | 0.0409 | 0.035 | 0.023 |
| C.V. | 90.5549 | 23.574 | 17.385 | 16.690 |

*Source: Annual reports of shareholders (2071-2080)*

According to Table 7, which focuses on the manufacturing sector, UNL's net profit margin peaked in 2071–2082 at 0.28 and fell to 15% in 2077–2078. The CV was 17% and the average net profit margin was 0.20. The fiscal year 2079/80 had the highest net profit margin of BNL 0.16, while the fiscal year 2076/77 had the lowest, at -0.0190%. While CV has a 91% net profit margin, BNL's average was 0.098. In 2072–2073, NLOL's net profit margin reached its maximum point of 0.43, while in 2079–2080, it reached its lowest point of 0.015.

The CV was 17% and the average net profit margin for NLOL was 0.14. In 2077–2078, HDL's net profit margin reached its maximum point of 0.28, while in 2072–2073, it reached its lowest point of 0.04. HDL has an average net profit margin of 0.17 and CV of 24%. When examining the average net profit margin of a few chosen manufacturing companies, UNL has the highest net profit margin (0.20%), while BNL has the lowest (0.09%). According to the aforementioned analysis, UNL had the highest operational efficiency across all industries, whereas BNL's performance lagged behind industry standards.

**Descriptive Statistics for manufacturing companies**

The descriptive data are displayed in the table. It displays the return on equity, return on assets, net profit margin, debt to total equity ratio, and debt to total assets ratio at its lowest, highest, and mean values ratio of long-term debt to total assets, as well as each variable's standard deviation. To accomplish the first research goal, ten years' worth of data from Nepalese manufacturing enterprises was computed using SPSS to determine the overall capital structure position. Table 8 presents the findings on the capital structure of a sample of manufacturing enterprises that were chosen.

Table 8

*Descriptive Statistics Analysis*

| | **N** | **Minimum** | **Maximum** | **Mean** | **S.D.** |
|---|---|---|---|---|---|
| D/A | 40 | 0.01 | 1.77 | 0.3903 | 0.31546 |
| D/E | 40 | 0.01 | 2.75 | 0.734 | 0.63616 |
| LTDR | 40 | 0 | 1.25 | 0.4064 | 0.45315 |
| ROA | 40 | -0.01 | 0.45 | 0.1752 | 0.13863 |
| ROE | 40 | -0.02 | 0.77 | 0.3001 | 0.19695 |
| NPM | 40 | -0.02 | 0.43 | 0.1522 | 0.09755 |

*Sources: calculated from SPSS software*

Table 8 provides descriptive statistics for capital structure and profitability variables. Return on assets ranges from minimum -0.01 to maximum 0.45, with a mean value of 0.1752, and a standard deviation of 0.138. This wider fluctuation indicates that the sample includes both high and low value firms. Return on equity ranges from minimum -0.02 to maximum 0.77, with a mean value of 0.3, and a standard deviation of 0.1969. Net profit margin ranges from minimum -0.02 to maximum 0.43, with a mean value of 0.1522, and a standard deviation of 0.09755. Debt to total assets ratio ranges from minimum 0.01 to maximum 1.77, with a mean value of 0.3903, and a standard deviation of 0.31546. Debt to total equity ranges from minimum 0.01 to maximum 2.75, with a mean value of 0.734, and a standard deviation of 0.636. Long-term debt ratio ranges from minimum 0 to maximum 1.25, with a mean value 0.4064 and standard deviation of 0.4532. . This observation indicates that the companies used less debt than equity. The positive return on assets, return on equity and net profit margin indicates that the

companies were on average profitable although some companies were operating at a loss as reflected in the negative minimum observed value of return on assets, return on equity and net profit margin.

**Correlation between dependent and independent variables**

Karl Pearson correlation was used to do a correlation analysis. The association between capital structure metrics and the profitability of Nepalese manufacturing enterprises is demonstrated by the correlations study. A negative correlation coefficient signified a negative association between the correlated variables. In this instance, a rise in one variable would cause a fall in the other, and vice versa. There is a positive correlation between the variables when the coefficient is positive. Here, variables move in tandem. One variable's increase would cause another to increase as well, and vice versa.

Table 9

*Correlation Analysis between dependent and independent variables*

| | | **ROA** | **ROE** | **NPM** | **D/A** | **D/E** | **LTDR** |
|---|---|---|---|---|---|---|---|
| **ROA** | Pearson Correlation | 1 | | | | | |
| | Sig. (2-tailed) | | | | | | |
| **ROE** | Pearson Correlation | .840** | 1 | | | | |
| | Sig. (2-tailed) | 0.00 | | | | | |
| **NPM** | Pearson Correlation | .526** | .605** | 1 | | | |
| | Sig. (2-tailed) | 0.00 | 0.00 | | | | |
| **D/A** | Pearson Correlation | -0.083 | -0.105 | 0.05 | 1 | | |
| | Sig. (2-tailed) | 0.609 | 0.517 | 0.757 | | | |
| **D/E** | Pearson Correlation | -.358* | -0.29 | -0.25 | .622** | 1 | |
| | Sig. (2-tailed) | 0.023 | 0.07 | 0.119 | 0 | | |
| **LTDR** | Pearson Correlation | -.352* | -0.298 | -0.127 | -.510** | -.388* | 1 |
| | Sig. (2-tailed) | 0.026 | 0.061 | 0.436 | 0.001 | 0.013 | |

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

*Sources: calculated from SPSS software*

As indicated by the data presented in Table 9, debt ratio has negative relationship with ROE and ROA but the relationship is not significant since p-values are greater than 0.05. Similarly, debt-equity ratio has negative relationship with ROE, this relationship is not significant since p-value is greater than 0.05, while it has significant negative relationship with ROA and NPM at 0.05 level. It has been found that the variables having insignificant relationship among them have been processed further for analysis by

Rahman, Sarker & Uddin (2019), too. The results of correlational analysis imply that debt ratio and debt-equity ratio both are negatively related to the firms' profitability measured by ROE, ROA and NPM.

These relationships have achieved third research objective set as to examine the relationship between capital structure and profitability in Nepalese Manufacturing Companies of the research.

**Regression analysis**

The regression line is the line, which gives the best estimate of one variable for any given value of the other variable. In case of two variables X and Y, two regression lines i.e. lines is called the regression equation and also estimating equations. Multiple regression models are established to predict the impact of each dependent variable on independent variables. The regression analysis of variables was estimated using SPSS Software. Coefficient of determination R2 is the measure of proportion of variance of dependent variables about its mean that is explained by independent variables (Hair etal, 1998). Adjusted R square indicates how well the independent variables influence the dependent one (Benjamin, 1999). The regression analysis is conserved with the study of the relationship between dependent variables and independent variables. The regression line is the line, which gives the best estimate of one variable for any given value of the other variable. In case of two variables X and Y, we will have two regression lines i.e. lines is called the regression equation and also estimating equations. Since there are two regression lines, there are two regression equations. The relationship between on dependent variable and another independent variable is called simple regression. The relationship between one dependent and more than one other independent variable is called the multiple regressions.

### i. ROA and independent variable

Table 10

*Model summary of ROA and Independent Variable*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .642a | 0.413 | 0.364 | 0.11059 |

a Predictors: (Constant), Long-term debt ratio, Debt to equity Ratio, Debt to Assets Ratio

*Sources: calculated from SPSS software*

Table 10 shows that there is positive correlation between predicted values and observed value. Here, "R" refers to Pearson's correlation coefficient. R square denotes to coefficient of determination. It implies that 41.3% of return on assets is explained by given independent variables and remaining parts 59% explained by other variables. Similarly, adjusted R square refers 36.4% of the variance in the return on assets explained by the given independent variables. Here, standard error of the estimate is low and it refers that there is high accuracy of predictions.

Table 11

*ANOVA of ROA and Independent Variable*

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 0.309 | 3 | 0.103 | 8.43 | .000b |
| | Residual | 0.44 | 36 | 0.012 | | |
| | Total | 0.75 | 39 | | | |

a Dependent Variable: Return on assets

b Predictors: (Constant), Long-term debt ratio, D/A Ratio, D/E Ratio

*Sources: calculated from SPSS software*

The Table 11 indicated that there is significant relationship between dependent and independent variable. ROA has significant relationship with all independent variables having significant value of 0.000 which is less than 0.05.

Table 12

*Coefficient of ROA and Independent Variable*

| **Model** | | **Unstandardized Coefficients** | | **Standardized Coefficients** | **t** | **Sig.** |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 0.344 | 0.044 | | 7.852 | 0.00 |
| | Debt to Assets Ratio | 0.615 | 0.077 | 0.03 | 0.168 | 0.868 |
| | Debt to equity Ratio | -0.124 | 0.036 | -0.568 | -3.462 | 0.001 |
| | Long-term debt ratio | -0.531 | 0.046 | -0.587 | -3.934 | 0.00 |

a Dependent Variable: Return on assets

*Sources: calculated from SPSS software*

Table 12 shows that, the Regression analysis has been conducted on dependent variable as ROA and three independent variable: Total debt to total assets ratio, long-term debt to assets ratio and total debt to total equity ratio. The multiple regression of ROA on capital structure shows that regression coefficient is positive for total debt to total assets. Hence, larger the debt to total assets higher will be the impact on ROA. In this study there is a negative regression coefficient of long-term debt ratio, debt to total equity and ROA. Hence, when total debt to total assets increases, ROA also increases by 0.615units (ratio) and while total debt to total equity and long term debt ratio increase ROA decreases and vice versa. Hence, as the P-value is less, 0.05, there can be linear regression relationship between the dependent variable and independent variable. The total debt to total assets ratio has a P- value of 0.868, and corresponding, t-value of 0.168. It signifies that the variable is insignificant relationship between ROA and total debt to total assets ratio because P-value>0.05. The regression coefficient of both long-term debt ratio and debt-equity ratio is significant since p-values- 0.00and .001 are lesser than 0.05. The summery can be expressed as follows:

$ROA_{it} = 0.344 - 0.531LTDTA + 0.615TDTA -0.124TDTE + e_{it}$

**ii. ROE and independent variable**

Table 13

*Model summary of ROE and Independent Variable*

| Model | R | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .537a | 0.288 | 0.229 | 0.17292 |

a Predictors: (Constant), Long-term debt ratio, Debt to equity Ratio, Debt to Assets Ratio

*Source: Calculate from SPSS Software*

Based on model summary, Table 13 shows the correlation coefficient (R value) for this research is 0.537. This means there is a moderate positive relationship between dependent and independent variables. Similarly, the R square indicates the extent of percentage the independent variable can explain the variation in the dependentvariable.so, 0. 288 (28.8%) of variance in ROE is contributed by LTDR, TDTA and remaining is due to other factors.

Table 14

*ANOVA of ROE and Independent Variable*

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 0.436 | 3 | 0.145 | 4.864 | .006b |
| | Residual | 1.076 | 36 | 0.03 | | |
| | Total | 1.513 | 39 | | | |

a Dependent Variable: Return on equity

b Predictors: (Constant), Long-term debt ratio, Debt to equity Ratio, Debt to Assets Ratio

*Source: Calculate from SPSS Software*

The Table 14 indicates that the overall dependent variable and independent variable have an insignificant relation. ROE has significant relationship with all independent variables having significances level of 0.006 which is less than 0.05.

Table: 15

*Coefficient of ROE and Independent Variable*

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 0.551 | 0.069 | | 7.493 | 0 |
| | D/A Ratio | 0.629 | 0.121 | 0.104 | 0.539 | 0.593 |
| | D/E Ratio | -0.132 | 0.056 | -0.425 | -2.355 | 0.024 |
| | LTDR | -0.225 | 0.071 | -0.517 | -3.144 | 0.003 |

a Dependent Variable: Return on equity

*Source: Calculate from SPSS Software*

To looking the impact of dependent variable on independent variable the Table 15 shows that, the multiple regression of ROE on capital structure shows that regression coefficient is positive for total debt to total assets. Hence, larger the debt to total assets higher will be the impact on ROE. In this study there is a negative regression coefficient of long-term debt to total assets, total debt to total equity and ROE. Hence, when total debt to total assets increases, ROE also increases by 0.629 and while long-term debt to total assets, total debt to total equity increase ROE decreases and vice versa. Hence, as the P-value is less, 0.05, there can be linear regression relationship between the dependent variable and independent variable. The total debt to total assets ratio has a P- value of 0.593, and corresponding, t-value of 0.539. It signifies that the variable is insignificant relationship between ROE and total debt to total assets ratio because P-value>0.05. The regression coefficient of both long-term debt ratio and debt-equity ratio is significant since p-values- 0.003and .024 are lesser than 0.05. The summery can be expressed as follows:

ROEit= 0.551 -0.225 (LTDTA) + 0.629(TDTA) -0.132(TDTE) + eit

### iii. Net Profit Margin (NPM) and independent variable

Table 16

*Model summary of NPM and Independent Variable*

| Model | R | R Square | Adjusted $R^2$ | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .395a | 0.156 | 0.086 | 0.09326 |

a Predictors: (Constant), Long-term debt ratio, Debt to equity Ratio, Debt to Assets Ratio

*Source: Calculate from SPSS Software*

Based on model summary, Table 16 shows the correlation coefficient (R value) for this research is 0.395. This means there is a moderate positive relationship between dependent and independent variables. Similarly, the R square indicates the extent of percentage the independent variable can explain the variation in the dependentvariable.so, 0.156 (15.6%) of variance in NPM is contributed by LTDTA, TDTA and remaining is due to other factors.

Table 17

*ANOVA of NPM and Independent Variable*

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 0.058 | 3 | 0.019 | 2.225 | .102b |
| | Residual | 0.313 | 36 | 0.009 | | |
| | Total | 0.371 | 39 | | | |

a Dependent Variable: Net profit margin

b Predictors: (Constant), Long-term debt ratio, Debt to equity Ratio, Debt to Assets Ratio

*Source: Calculate from SPSS Software*

Table 17 shows that, Regression analysis has been conducted on dependent variable as NPM and three independent variable: Total debt to assets ratio, long-term debt to assets ratio and total debt to equity ratio. The multiple regression of NPM on capital structure shows that regression coefficient is negative for total debt to total assets, long-term debt ratio and total debt to total equity. Hence, larger the debt to total assets higher will be the impact on ROA. Hence, when total debt to total assets and total debt to total equity increases, NPM decreases and vice versa. So that Table 17 indicates, there is exist relation between NPM and independent variables. NPM has no significant relationship with all independent variables having significant value of 0.102 which is higher than 0.05.

Table 18

*Coefficient of NPM and Independent Variable*

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 0.191 | 0.037 | | 5.178 | 0 |
| | D/A Ratio | 0.079 | 0.065 | 0.256 | 1.217 | 0.032 |
| | D/E Ratio | -0.074 | 0.03 | -0.481 | -2.445 | 0.02 |
| | LTDR | 0.039 | 0.039 | 0.183 | 1.02 | 0.314 |

a Dependent Variable: Net profit margin

*Source: Calculate from SPSS Software*

As indicated in Table 18, the constant value is found to be 0.191, which is the Y intercept. This implies the NPM that we expect when DR, LTDR and DER are zero. The slopes of regression line of DR, LTDR and DER are 0.079, 0.039 and -0.074 respectively. This implies that, as DR increases by 1%, NPM would be increased by .079% and vice-versa. Similarly, as DER increases by 1%, NPM would be decreased by .074% and vice-versa. The regression coefficient of both debt ratio and debt-equity ratio is significant since p-values- 0.032, and 0.02 are lesser than 0.05 while long-term debt to total assets ratio has a P-vale of 0.314 and corresponding t-value of 1.02. The p-value>0.05 so it is insignificant relationship between NPM and long-term debt ratios. The summary can be expressed as follows:

NPMit= 0.191 +0.039 (LTDTA) + 0.079(TDTA) -0.074(TDTE) + eit

**Major Findings of the Study**

Based on the data provided by the concerned companies the major findings of the study with respect to impact of capital structure on the firm's profitability are as follows:

i. Average LTDTA ratio of selected companies shows that value of BNL, HDL, NLOL and UNL are 0.6482, 0.3737, 0.3966 and 0.166 times. It shows that BNL has higher amount of long-term debt and UNL has lower amount of long-term debt financing. Similarly, S.D of BNL is higher i.e. (0.13081) and HDL has lower i.e. (0.00216). Again, Coefficient of variance shows that UNL has higher uniformity and HDL has less uniformity of LDTA ratio from the selected manufacturing companies.
ii. Mean TDTA ratio of the selected manufacturing companies shows that value of BNL, HDL, UNL and NLOL are 0.373, 0.4083, 0.34 and 0.445. It's how that

HDL has higher amount of debt to total assets and UNL has lower amount of debt to total assets. Similarly, NLOL has higher the deviation from the mean value ratio 0.1414. Whereas HDL has lower deviation from the mean value ratio 0.043. HDL has higher uniformity and UNL has less uniformity in term of DTA ratio measured by coefficient of variation.

iii. Average of TDTE ratio of selected manufacturing companies shows that value of BNL, HDL, UNL and NLOL are 0.648, 0.374, 0.166 and 0.396 times. It shows that BNL has higher amount of debt to total equity and UNL has lower amount of debt to total equity. Similarly, NLOL has higher deviation and HDL has lower deviation from mean value ratio. Coefficient of variance shows that UNL has higher uniformity and HDL has less uniformity of DTE ratio from the selected manufacturing companies.

iv. Average of ROE value of selected manufacturing companies shows that value of BNL, UNL, HDL and NLOL are 0.15, 0.43, 0.44 and 0.18. It shows HDL has higher amount of ROE and BNL has lower amount of ROE. Similarly, UNL has 25.86% C.V. which refers to higher uniformity and BNL has 56.67% C.V which refers to less uniformity in term of return on equity.

v. Average of ROA value of selected manufacturing companies shows that value of BNL, HDL, UNL and NLOL are 0.057, 0.274, 0.32 and 0.059. It shows that UNL has higher amount of ROA and BNL has lower amount of ROA. Standard deviation of HDL has higher deviation from mean value0.1192 and BNL has lower deviation from mean value 0.0377. Similarly, UNL has26.34% C.V which refers to more uniformity & BNL has 66.22% C.V which refers to less uniformity in term of return on assets.

vi. The average net profit margin of manufacturing companies UNL, BNL, NLOL and HDL was 0.202, 0.098, 0.14 and 0.17. It shows that the highest NPM is earn UNL and lowest is earn BNL from operating activity. NPM for BNL is negative in the FY 2076/77 in the study period which means there is no profit. NPM of manufacturing companies fluctuation for the study period.

vii. Correlation matrix shows that ROE has negative relationship with LTDTA, TDTA and TDTE of the companies with -0.298, -0.105 and -0.29 correlation coefficient.

viii. Correlation matrix shows that ROA has negative relationship with LTDTA, TDTA and TDTE with -0.352,-0.083 and -0.358 correlation coefficients.

ix. Correlation matrix shows that NPM has negative relationship with LTDTA and TDTE with -0.127 and -0.25.But TDTA has positive relationship with 0.05 correlation coefficients.

x. Regression analysis of ROE shows that the beta coefficient of LTDTA and TDTE ratio are negative with -0.225 and -0.132 but, TDTA ratio has positive impact on ROE.

xi. Regression analysis of ROA shows that the beta coefficient of LTDTA and TDTE ratio are negative with -0.531 and -0.124 but, TDTA ratio has positive impact on ROA.

xii. Regression analysis of NPM shows that the beta coefficient of TDTE ratio are negative with -0.074 but, TDTA and LTDTA ratio has positive impact on NPM.

**4.2 Discussions**

In order to maximize the performance and value of the company, capital structure is essential to the financial decision-making process. A company's mix of various instruments issued to support its operations is referred to as its capital structure. The capital structure of the company refers to these combinations of various funding options that it offers.

This study's primary goal is to determine the ratio of long-term debt to total assets, total debt to total equity, and total debt to total debt. Additionally, attempt to analyze the relationship between net profit margin, return on equity, and return on assets. This study employed a descriptive research design, analyzing the facts and describing the characteristics of the variables. Using the random sampling method, four manufacturing companies are selected as a sample to examine the effect of capital structure on the profitability of Nepalese manufacturing enterprises. The annual statements of a subset of the sample companies, the companies report, NEPSE, the Unified Directives, and other publications are used to gather data. This research specially conducts for the study of impact of capital structure on profitability of Nepalese manufacturing companies. The capital structure and its connections to LTDR, D/R, and D/E are given particular consideration. Additionally, this study contrasts the profitability performance of a subset of manufacturing organizations as determined by ROA, ROE, and NPM. The relationship between the company's indicator LTDR, D/A, and D/E is examined in this study.

The ratio of total debt to equity is 0.36, which is lower than the ratio of 1.255, which is higher. Which suggests that there isn't an ideal capital structure for the companies because some use more debt than others? The ROA, ROE, and NPM have a negative correlation with the ratio of total debt to total equity. The profitability of the business is directly impacted by the ratio of total debt to total equity. The ratio of total debt to total assets is 0.34 for smaller amounts and 0.45 for larger amounts which show that while some businesses use more debt than their entire assets, others use less. The ROA, ROE, and NPM are inversely connected with the total debt to total assets. The ratio of total debt to total assets has a direct impact on the profitability of the business.

The regression results' outcomes Long-term debt to total assets and overall debt to total assets were positively correlated, according to Table 18. Contrary to these findings, Hajisaaid's (2020) study on capital structure and financial performance reveals a negative relationship between the two. It implies a positive relationship with both long-term debt to total assets and total debt to total assets. Prior studies used solely listed trading companies as their sample, collected data over a 9-year period, and employed regression analysis, fixed effect models, random effect models, and the Housman test.

The calculated correlation value of return on assets has positive relation with return on equity, net profit margin and negative relation with total debt to assets, debt to equity and long-term debt. Similarly return on equity has negative relation with total debt to assets, long-term debt and total debt to equity. Likewise net profit margin has positive relation with total debt to assets and has negative relation with long-term debt and total debt to equity. Raman, Sharker and uddinj (2019),Bhattarai (2017) in their findings also come up with the same result that there is significant negative relationship between total debt and profitability. Similarly Ngoc,Tien and thu(2021), Shah (2016), Hajisaaid (2020),Shrestha(2023),Ozdemir and Ozel (2024) study on supports this findings and reveals that there is a negative relationship between capital structure and firm’s profitability whereas Lamichhane (2019) study impact of capital structure in profitability reveals a positive relation between total debt ratio and profitability which is contradictory from these findings.

This study also reveals that debt ratio has negative relationship with ROE and ROA. Similarly, debt-equity ratio has negative relationship with ROE, ROA and NPM while it has significant negative relationship with ROA and NPM. This implies that debt ratio, long-term debt ratio and debt-equity ratio are negatively related to the firms profitability

measured by ROE, ROA and NPM. In the similar research, Rahman, Sarker, and Uddin (2019) have revealed that D/R has negative relationship with ROE and ROA. Similarly, DER also has negative relationship with ROE and ROA. Addition to the relationship, increase or decrease in debt ratio, long 13-term debt ratio and debt- equity ratio has no significant impact on ROE, whereas increase in debt results in increase in ROA. Similar results are reported by Rahman, Sarker, and Uddin (2019). The similarities, even though the contexts are different, between the findings are detected because of the similarities in research variables, nature of sampled organizations, objectives of the research and research methodology to achieve the research objective.

# Chapter V
# Summary And Conclusion

## 5.1 Summary

The study's history and topic matter, including a problem statement, significance, and limits, are covered in the first chapter. The pertinent literature has been reviewed in the second chapter with regard to the theoretical foundation of banking concepts. The research methodology utilized to assess the liquidity and profitability status of the sample banks under examination is covered in the third chapter. Financial and statistical methods are used to present, evaluate, and understand the data and information in the fourth chapter. Ultimately, a summary, conclusion, and suggestions pertaining to the entire study have been made in the fifth and last chapter.

The second chapter covers the theoretical underpinnings of various literature reviews for books, journals, and dissertations. This will aid in illuminating the evolution and advancement of prior study on the subject. In order to give readers an understanding of the context of the earlier researchers' work, the time has been summarized.

To achieve the study's stated aims, a suitable research approach has been used in chapter three. The research strategy, data types and sources, data processing methods, and tools and methodologies are all covered in this chapter. The study's research design is analytical and descriptive in character. The information gathered from secondary sources. Financial ratios have been utilized, including ROA, ROE, NPM, and the ratios of total debt to equity, total debt to assets, and long-term debt to total assets. In a similar vein, statistical instruments such as multiple regression analysis, descriptive and inferential statistics, mean, standard deviation, coefficient of variation, and correlation coefficient have been employed.

The ratio of debt to equity that a company utilizes to fund its operations is known as its capital structure. A company's capital structure is made up of a variety of securities. A company's capital structure describes how it finances its activities. It may use debt, equity, or a combination of the two. The financial planning that provides the assets of an industry is referred to as its "capital structure." "The percentage of various securities

issued by a firm is referred to as its capital structure." The proportions that maximized the firm's overall worth are known as the optimal capital structure.

This study sought to investigate the relationship between capital structure and profitability as well as the effect of capital structure on profitability in order to address these financial concerns and find solutions to the financial challenges. It also sought to determine the capital structure and profitability positions of the companies under investigation. The hypothesis posited that there exists no noteworthy correlation between profitability and capital structure. Similarly, a hypothesis was also put up suggesting that there is no discernible variation in profitability across various categories of firm sizes. Descriptive and correlational research designs were employed to meet the study's goals.
Four Nepalese manufacturing companies registered on NEPSE made up the study's sample. Purposive sampling was the method employed for the investigation. The information was gathered via yearly financial reports that were posted on the websites of the relevant businesses. Descriptive statistics, correlation, regression analysis, and analysis of variance tests were used to analyze the resulting data. The mean, maximum, minimum, and standard deviation were employed in the descriptive statistic to characterize the capital structure and profitability situations. Regression analysis and the Pearson correlation coefficient were applied to the correlation study. A calculation of Pearson's "r" was made to verify the first hypothesis. Regression analysis was employed to investigate the extent to which capital structure influences profitability. The long-term debt to asset ratio, the total debt to equity ratio, and the debt to asset ratio are all part of the capital structure. These ratios aid in the analysis and assessment of manufacturing enterprises' capital structure positions. In a similar vein, profitability ratios like net profit margin, return on equity, and return on asset help analyse and assess the manufacturing sector's profitability status.

Data from FY 2071 to FY 2080 have been analysed using this type of financial and statistical technology. The primary data used in this investigation are secondary sources. As a result, the secondary data in the study has intrinsic limitations. If the data provided and gathered are real, then too will the study be authentic. A chapter plan has been created for the study's systematic analysis. Essentially, the entire research project has been centred on a descriptive analysis of the relationship between Nepali manufacturing enterprises' capital structure and profitability. The goal of this study is to learn more

about the relationship between capital structure and profitability, management's operational efficiency, how well the management uses all of its assets, and the strengths and weaknesses of a sample of manufacturing companies in relation to their overall capital structure and profitability position. The findings showed a negative correlation between capital structure and profitability.

**5.2 Conclusion**

Using data from 2071 to 2080, the researcher examines the impact of capital structure on the profitability of Nepalese manufacturing companies listed on the NEPSE. The study's findings and those of Arjal (2017) indicate that, as compared to previous years, the debt-to-equity ratio and debt ratio have decreased in recent times. Thus, it may be said that Nepalese manufacturing enterprises have little financial risk, which results in low earnings per share for the companies. In a similar vein, while net profit ratio has increased recently, return on equity and return on assets have decreased. According to the study's findings, Nepalese manufacturing companies have been making less money overall. Similar to this, Nepalese manufacturing companies appear to be turning a healthy profit after deducting all manufacturing, administrative, and funding expenses from their asset investments. However, they do not appear to be doing so efficiently. Lastly, compared to previous years, they are now making less operating profit. All things considered, it appears that Nepalese manufacturing companies are not very profitable.

The study's findings indicate that UNL is outperforming BNL, NLOL, and HDL. Both the total debt to equity and total debt to assets ratios are low. Out of all the companies, UNL has the highest profit margin, indicating a strong earning potential for the business. The returns on investments made by investors are increasing. UNL has only taken on a relatively small debt load. HDL, on the other hand, has incurred significant short- and long-term debt. BNL only uses short-term loans. Even if having more debt has tax benefits, using debt excessively raises interest costs and increases the likelihood that a company would fail during hard times.

The researcher finds a mixed association between capital structure characteristics and profitability variables after testing the relationship. ROA significantly has a negative association with total debt to equity and a positive relationship with total debt to assets. Total debt to equity and total debt to assets have a negative, statistically significant relationship with ROE. Negative relationships exist between NPM and total debt to

equity, long-term debt to assets, and total debt to assets. The findings of this study show a notably unfavourable relationship between overall debt and profitability.

These results suggest that a higher debt position is linked to a lower profitability; that is, the higher the debt, and the worse the firm's profitability. Financial leverage raises default risk even while it benefits firms tax-wise. Interest costs are a fixed obligation that rises as a company takes on more debt. If the company is struggling financially, this fixed obligation will exacerbate the situation. If operating income isn't enough to cover interest charges, stockholders will have to make up the difference, and if they can't, the company may be forced to file for bankruptcy.

### 5.3 Implications

In Nepal, managing manufacturing enterprises can be an extremely challenging endeavour due to the country's declining economic conditions. Increasing market liberalization, challenging transportation, an unstable administration, blackouts, and high inflation rates are a few of the issues that need to be resolved. Generally speaking, manufacturing companies are essential to any country's economic growth. The decision of debt versus equity is one that manufacturing companies must make. This decision, among others, is essential to a company's ability to determine its profit. To obtain a competitive edge in their sectors and generate higher revenues, manufacturing companies should carefully consider their financing options.

The following recommendations are made in light of the main conclusions of the investigation of the particular manufacturing enterprises listed in NEPSE:

i. An increase in the level of debt also increase the riskiness of companies so manufacturing companies should depend a lot on internal source of financing in order to increase their profitability. This kind of financing is less risky and more profit enhancing. The choice of debt financing should be a last resort.
ii. Investors of listed manufacturing companies in Nepal should review the capital structure of companies before investing in them because the strength of a company capital mix determines the level of return.
iii. An appropriate mix of capital structure should be adapted in order to increase the profitability of manufacturing companies. Finding reveals that debt has a negative relationship with profitability. In the case of higher debt profitability tends to decline it is due to the high interest charge

iv. More companies in Nepal should put their financial information through NEPSE/ SEBON in order to allow investor to review their capital structure and attracts more investors in their companies.

v. The capital structure of the manufacturing companies are not consistent so the management should make more consistent and careful attention should be given to make optimal capital structure since it is important to maximize the value of the firm and minimize overall cost of capital.

vi. The total debt amount of HDL, NLOL & BNL are little huge so there is a need to reduce the debt capital to relief the company from the burden of exes fixed obligation.

vii. UNL has properly and productively utilized its fund and assets. It is suggested to get more profit for BNL, NLOL and HDL and have to focus on proper utilization of its assets and fund.

viii. This study mainly based on secondary data. So, further studies can be based on using primary data or both primary and secondary data.

ix. This study take only ten years data. So, further study can be used more than ten years data for analysis capital structure and profitability.

x. Future research can also be carried out using different methodology, tools and technique.

## References


Gill A. & Mathur Neil (2011). The impact of board size, chief executive officer Duality and corporate liquidity on the profitability of Canadian larger service firms. *Journal of Applied Finance and Banking, 1*(3), 83-95.

Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *The Journal of Risk Finance, 6*(5), 438-447.

Adeyemi, S. B., & Oboh, C. S. (2011). Perceived relationship between corporate capital structure and firm value in Nigeria. *International Journal of Business and Social Science*, *2*(19), 131-143.

Ashraf, M., Amen, A., and Shahzadi, K. (2017). *The impact of capital structure on firm's profitability*: A case of cement industry of Pakistan. *International Journal of Business and Social Science. 8*(4), 2219-1933.

Aulia, H. & Gandakusuma, I. (2019). The effect of capital structure on firm performance of manufacturing companies in ASEAN 5 country. *Journal of Advances in Economic, Business and Management Research 144(*473).

Babalola, Y.A. (2013). The effect of firm's size on firm's profitability in Nigeria. *Journal of Economics and Sustainable Development*, *4*(5), 90-95.

Balasundaram, N. (2010). Capital structure and its impact on profitability: A study of listed manufacturing companies in Sri Lanka. *The Journal of Economics Theory and Practice and Social Issues, Society of Economists Ekonomika, Nis, Serbia*, *56*(4), 83-92

Barges, A. (2009). *The Effect of capital structure on the cost of capital: A Test and Evaluation of the Modigliani and Miller Propositions*. New Delhi: Prentice Hall of India.

Basnet, N., (2021). *Capital structure decision and profitability: A study of Nepalese manufacturing companies.* MBS Thesis. Central Department of Management. Tribhuvan University.

Bhattarai, B. P. (2020). Effects of capital structure on financial performance of insurance companies in Nepal. *International Journal of Accounting and Financial Reporting*, *10*(3), 35.

Bhattarai, P. (2017). *A study of capital structure of manufacturing company in Nepal*. Unpublished Master Level submitted to Faculty of Management. Kathmandu: Tribhuvan University

Brigham, E. F., & L.C. Gapenski, (2004) financial management, theory and practice, New York: Dryden Press.

Brigham, E.F. & Houston, G. F. (2006). *Fundamental of financial management*. Singapore: Thompson Asia Pvt. Ltd.

Chechet, I. L., & Olayiwola, A. B. (2014). Capital structure and profitability of Nigarian Quoted Firms: The Agency Cost Theory Perspective. *American International Journal of Social Science 3*(10), 139-158

Ebaid, I. E. (2009). The impact of capital structure choice on firm's performance: empirical evidence from Egypt. *The Journal of Risk Finance*, *10*(5), 477 487.

Habibniya, H., Dsouza, S., Rabbani, M. R., Nawaz, N., & Demiraj, R. (2022). Impact of capital structure on profitability: panel data evidence of the telecom industry in the United States. *Risks*, *10*(8), 157.

Hajisaaid, A, M, (2020). The effect of capital structure on profitability of basic materials Saudi Arab firms. *Journal of Mathematical Finance. 10*,631-647.

Kyereboah, C. A. (2007). The impact of capital structure on the performance of microfinance institutions. *Journal of Risk Finance, 8,* 56-71.

Lamichhane, S. (2019). *Impact of capital structure on firm's profitability of listed manufacturing companies*. An unpublished Master Degree Thesis. Kathmandu: Faculty of Management; Tribhuvan University.

Lyubov T., & Heshmati, A. (2023). Impact of financial crises on the dynamics of capital structure: Evidence from Korean listed companies. *The Singapore Economic Review*, *68*(03), 867-898.

Miko, N. U. & Para, I. (2019). Capital structure and profitability of listed manufacturing firms in Nigeria. *Journal of Accounting and Management. 2*(5), 1119-2454.

Muhammad, H., & Shah, B. (2014). The impact of capital structure on firm performance: Evidence from Pakistan. *The Journal of Industrial Distribution & Business*, *5*(2), 13-20.

Nasimi, A. N. (2016). Effect of capital structure on firm profitability (an empirical evidence from London, UK). *Global Journal of Management and Business Research*, *16*(4), 8-20.

Ngoc, N. M., Tien, N. H., & Thu, T. H. (2021). The impact of capital structure on financial performance of logistic service providers listed on Ho Chi Minh City stock exchange. *PalArch's Journal of Archaeology of Egypt/Egyptology*, *18*(2), 688-719.

Nguyen, Q. N., Pham, K. X., & Nguyen, L. P. (2024). Impact of debt structure on profitability of non-financial listed joint-stock firms... *Journal of Governance and Regulation/Volume*, *13*(1).

Nimalathasan, B. (2010). Capital structure and its impact on profitability: A study of listed manufacturing companies in Sri Lanka. *The Journal of Economics Theory and Practice and Social Issues 56*(4), 83-92.

Niresh, A. J. & Velnampy, T. (2012). The relationship between capital structure and profitability. *Journal of Management and Business Research. 12*(8), 2249-4588.

Özdemir, B., & Özel, Ö. (2024). The effect of capital structure on profitability: evidence from the Turkish manufacturing companies. *Verimlilik Dergisi*, *58(*1), 45-60.

Panthi, A. (2018). *A comparative study on capital structure management of listed manufacturing companies*: A case study of Bottlers Nepal Limited and Unilever Nepal Limited. An unpublished Thesis .Shanker Dev Campus, Tribhuvan University, Putalisadak, Kathmandu.

Rahman, A., Sarker, S. I., & Uddin, J. (2019). The impact of capital structure on the profitability of publicly traded manufacturing firms in Bangladesh. *Applied Economics and Finance*, *6*(2), 1-5.

Rajkumaran, T. & Yogendrarajah, R. (2015). Impact of capital structure on profitability. *International Journal in Management and Social Science. 03*ISSN 2321-1784.

Shah, P. (2016). *Impact of capital structure on firm performance using 25 cement companies listed on Karachi stock exchange during 2009 to 2013*. Unpublished Master Level submitted to Faculty of Management. New Delhi: Delhi University.

Shrestha, S. (2023). Impact of capital structure on profitability of Dabur Nepal Private Limited. *Journal of Economics and Management*, *3*(1), 25-33.

Sultan, A., & Adam, M. (2015). The effect of capital structure on profitability: An empirical Analysis of listed firms in Iraq. *European Journal of Accounting, Auditing and Finance Research*, *3*(2), 61-78

Thapa, A., Thapa, D.M. & Khadka, D. M. (2023). Impact of capital structure on the profitability of manufacturing companies in Nepal: A Case Study of Sarbottam Cement Nepal. *Economic Growth and Environment Sustainability*, *2*(2): 53-56.

Vasiliou, D., Eriotis, N., & Dakskalakis, N. (2005). The determinants of capital structure. Piraeus: Universit of Piraeus.

wardani, O. M., & Subowo, A. (2020). Factors that influence capital structure with profitability as a moderating variable. *Accounting Analysis Journal 9*(2), 103-108

Wippern, R. L. (1996). Financial structure and value of the firm. *Journals of Finance*. *21*(4): 615-633.

Wu, C. (2019). The relationship between capital structure and profitability of U.S. manufacturing companies: An Empirical Analysis. United State of America: Morehead State University.

Yunita, L., Ridloah, S., & Humaira, H. (2024). The effect of capital structure and profitability on company value in the food and beverage sector in Indonesia. *Jurnal Ekonomi Teknologi dan Bisnis (JETBIS)*, *3*(2), 707-718.

**Websites:**

https://www.unilever.com/

https://himalayandistillery.com/

https://bnl.com.np/

https://nepallubeoil.com/products/

https://nepalstock.com/

# APPENDIX

## Appendix: 1

*Total Debt to Assets Ratio*

| **Company Name F/Y** | **BNL** | **HDL** | **UNL** | **NLOL** |
|---|---|---|---|---|
| 2079/80 | 0.2 | 0.01 | 0.4 | 0.1 |
| 2078/79 | 0.1 | 0.013 | 0.3 | 0.2 |
| 2077/78 | 0.2 | 0.02 | 0.2 | 0.4 |
| 2076/77 | 0.1 | 0.1 | 0.3 | 0.1 |
| 2075/76 | 0.1 | 0.14 | 0.4 | 0.3 |
| 2074/75 | 0.62 | 0.29 | 0.4 | 0.67 |
| 2073/74 | 0.6 | 0.42 | 0.33 | 0.68 |
| 2072/73 | 0.64 | 0.68 | 0.34 | 0.67 |
| 2071/72 | 0.61 | 0.64 | 0.36 | 0.6 |
| 2070/71 | 0.56 | 1.77 | 0.37 | 0.73 |
| Mean | 0.373 | 0.4083 | 0.34 | 0.445 |
| S.D. | 0.058 | 0.043 | 0.082 | 0.141 |
| C.V. | 15.479 | 10.541 | 24.015 | 31.780 |

## Appendix: 2

*Total Debt to Equity Ratio*

| **Company Name F/Y** | **BNL** | **HDL** | **UNL** | **NLOL** |
|---|---|---|---|---|
| 2079/80 | 0.5 | 0.01 | 0.5 | 0.3 |
| 2078/79 | 0.2 | 0.01 | 0.6 | 0.4 |
| 2077/78 | 0.4 | 0.02 | 0.3 | 0.4 |
| 2076/77 | 0.5 | 0.11 | 0.7 | 0.3 |
| 2075/76 | 0.3 | 0.14 | 0.6 | 0.8 |
| 2074/75 | 1.61 | 0.41 | 0.66 | 2.75 |
| 2073/74 | 0.3 | 0.51 | 0.68 | 2.02 |
| 2072/73 | 1.08 | 0.75 | 0.6 | 2.14 |
| 2071/72 | 1.3 | 0.53 | 0.49 | 1.95 |
| 2070/71 | 1.25 | 1.17 | 0.58 | 1.49 |
| Mean | 0.744 | 0.366 | 0.571 | 1.255 |
| S.D. | 0.511 | 0.384 | 0.117 | 0.921 |
| C.V. | 68.76 | 105.160 | 20.564 | 73.389 |

**Appendix: 3**

*Long-term Debt Ratio*

| Company Name F/Y | BNL | HDL | UNL | NLOL |
|---|---|---|---|---|
| 2079/80 | 0.086 | 0.019 | 0.0325 | 0.043 |
| 2078/79 | 0.207 | 0.014 | 0.013 | 0.045 |
| 2077/78 | 0.303 | 0.015 | 0.3 | 0.048 |
| 2076/77 | 0.391 | 0.016 | 0.0036 | 0.077 |
| 2075/76 | 0.265 | 0.023 | 0.0052 | 0.6 |
| 2074/75 | 1.08 | 0.25 | 0.017 | 0.25 |
| 2073/74 | 1.07 | 1.05 | 0.01 | 1.05 |
| 2072/73 | 1.03 | 1.06 | 1.25 | 1.06 |
| 2071/72 | 1.01 | 1.01 | 0.018 | 1.02 |
| 2070/71 | 1.04 | 0.28 | 0.016 | 0.18 |
| Mean | 0.6482 | 0.3737 | 0.166 | 0.396625 |
| S.D. | 0.131 | 0.002 | 0.142 | 0.244 |
| C.V. | 20.192 | 0.578 | 85.466 | 61.747 |

**Appendix: 4**

*Return on Assets*

| Company Name F/Y | BNL | HDL | UNL | NLOL |
|---|---|---|---|---|
| 2079/80 | 7% | 18% | 40% | 8% |
| 2078/79 | 7% | 33% | 30% | 1% |
| 2077/78 | 4% | 45% | 20% | 7% |
| 2076/77 | -1% | 23% | 30% | 4% |
| 2075/76 | 7% | 38% | 40% | 0.60% |
| 2074/75 | 7% | 39% | 28% | 9.00% |
| 2073/74 | 15% | 29% | 31% | 11.00% |
| 2072/73 | 8% | 5% | 29% | 9.00% |
| 2071/72 | 1% | 26% | 37% | 8.00% |
| 2070/71 | 2% | 18% | 25% | 2.00% |
| Mean | 0.057 | 0.274 | 0.31 | 0.0596 |
| S.D. | 0.038 | 0.119 | 0.082 | 0.033 |
| C.V. | 66.227 | 43.529 | 26.339 | 56.581 |

**Appendix: 5**

*Return on Equity*

| Company Name F/Y | BNL | HDL | UNL | NLOL |
|---|---|---|---|---|
| 2079/80 | 16% | 27% | 42% | 1.50% |
| 2078/79 | 16% | 50% | 42% | 10% |
| 2077/78 | 11% | 71% | 33% | 17% |
| 2076/77 | -2% | 52% | 18% | 4% |
| 2075/76 | 18% | 77% | 45% | 25% |
| 2074/75 | 18% | 54% | 46% | 34% |
| 2073/74 | 30% | 37% | 52% | 29% |
| 2072/73 | 24% | 8% | 47% | 25% |
| 2071/72 | 6% | 40% | 55% | 4% |
| 2070/71 | 13% | 14% | 58% | 33% |
| Mean | 0.15 | 0.43 | 0.438 | 0.1825 |
| S.D. | 0.085 | 0.180 | 0.113 | 0.096 |
| C.V. | 56.667 | 41.903 | 25.856 | 52.771 |

**Appendix: 6**

*Net Profit Margin*

| Company Name F/Y | BNL | HDL | UNL | NLOL |
|---|---|---|---|---|
| 2079/80 | 0.167 | 0.22 | 0.22 | 0.015 |
| 2078/79 | 0.154 | 0.26 | 0.21 | 0.058 |
| 2077/78 | 0.156 | 0.28 | 0.15 | 0.015 |
| 2076/77 | -0.0181 | 0.19 | 0.16 | 0.015 |
| 2075/76 | 0.167 | 0.17 | 0.19 | 0.056 |
| 2074/75 | 0.08 | 0.17 | 0.2 | 0.3 |
| 2073/74 | 0.11 | 0.12 | 0.21 | 0.33 |
| 2072/73 | 0.09 | 0.04 | 0.22 | 0.43 |
| 2071/72 | 0.014 | 0.15 | 0.28 | 0.06 |
| 2070/71 | 0.06 | 0.11 | 0.18 | 0.1 |
| Mean | 0.098 | 0.171 | 0.202 | 0.138 |
| S.D. | 0.088 | 0.040 | 0.035 | 0.0238 |
| C.V. | 90.554 | 23.574 | 17.386 | 16.689 |

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ABSTRACTS This study examined the impact of capital structure and profitability on listed manufacturing companies in Nepal by analyzing data from four companies over a 10- year period, from 2071 to 2080 (Nepali calendar years). The data were sourced from annual reports, company brochures, the Nepal Stock Exchange