

# **IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY OF NEPALESE MANUFACTURING COMPANIES**

A Dissertation submitted to the office of the dean, faculty of management in partial  
fulfillment of requirement 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 the dissertation entitled “**Impact of Capital Structure on Profitability of Nepalese Manufacturing Companies**”. The work of this dissertation has not been submitted previously for conferral of any degrees nor has it 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 declare that all information sources and literature used are cited in the reference section of the dissertation.

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June 2024

## REPORT OF RESEARCH COMMITTEE

Mr. Tika Shrestha has defended a research proposal entitled “**Impact of Capital Structure on Profitability of Nepalese Manufacturing Companies**”, successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Joginder Goet and submit the thesis for evaluation and viva voce examination.

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## **ABBREVIATIONS**

AT	:	Assets Tangibility
BNB	:	Bottlers Nepal (balaju)
BNT	:	Bottlers Nepal (Terai)
DER	:	Debt equity ratio
FY	:	Fiscal Year
HDL	:	Himalayan Distillery
L	:	Leverage
Li	:	Liquidity
ROA	:	Return on Assets
ROE	:	Return On equity
S	:	Size (log of total assets)
SD	:	Standard Deviation
Sig	:	Significant
SPSS	:	Statistical Package for Social Science
TDTA	:	Total Debt to Total Assets
TU	:	Tribhuvan University
ULCL	:	Unilever Company

## ABSTRACT

The objectives of research are to assess the current status of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility, size, return on assets and return on equity of Nepalese manufacturing companies, to examine the relationship of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size to the return on assets and return on equity of Nepalese manufacturing companies and to analyze the total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size impact to the return on assets and return on equity of Nepalese manufacturing companies. Descriptive and casual comparative research design has been employed. The descriptive statistics, correlation and regression analysis are conducted. The achievement of the objectives. The data are collected from annual report of the manufacturing companies. Sample are selected four sample manufacturing and secondary data of each 10 years from 2014-2023. The finding of the study is that the different between minimum and maximum is higher, maximum and mean also higher, minimum and mean also higher. Other hand the standard deviation is higher. These means the data flow of all the variables; return on assets, return on equity, total debt to total assets, debt equity ratio, leverage, liquidity, assets tangibility and size are in the nature of fluctuating. The relationship of total debt to total assets, debt equity ratio, and leverage, liquidity and assets tangibility to the return on assets is significant. The relationship of size and return on asset is not significant. The relationship of assets tangibility is significant to the return on equity. The relationship of total debt to total assets, debt equity ratio, leverage, liquidity and size is not significant to the return on equity. The impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on assets is significant. The impact of assets tangibility and size are not significant to the return on assets. The impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on equity is significant. The impact of assets tangibility and size are not significant to the return on equity.

*Keyword: Capital Structure, Profitability and Nepalese Manufacturing Companies*

# CHAPTER-I

## INTRODUCTION

### 1.1 Background of the Study

Capital structure is a fundamental aspect of a company's financial framework, representing the combination of debt and equity used to finance its operations and investments. Companies must carefully balance the use of debt and equity to optimize their financial structure, considering factors such as risk, cost of capital, and shareholder value. Debt constitutes funds borrowed by a company, which must be repaid over time, usually with interest. Short-term debt, such as commercial loans and accounts payable, is often used to cover immediate expenses, while long-term debt, including bonds and term loans, supports larger investments like infrastructure and expansion projects. While debt can offer tax advantages through deductible interest payments, excessive leverage can increase financial risk and strain cash flow, potentially leading to bankruptcy (Ngoc et al., 2021)

Equity, on the other hand, represents ownership in the company. Common equity holders have voting rights and are entitled to a share of profits, but they also bear the highest risk, as they are the last to be paid in case of liquidation. Preferred equity provides a fixed dividend but lacks voting rights. The cost of equity tends to be higher than debt, reflecting the higher risk borne by equity investors. Hybrid instruments, such as convertible bonds and preferred shares, offer a blend of debt and equity characteristics. These instruments provide flexibility in structuring financing arrangements, allowing companies to tailor their capital structure to specific needs and market conditions (Ombuh et al., 2024).

Various factors influence a company's capital structure decisions, including its business risk profile, tax considerations, market conditions, and strategic objectives. For instance, companies with stable cash flows may opt for higher levels of debt to benefit from tax shields, while those in volatile industries may prioritize equity to avoid the risk of default. Ultimately, a well-balanced capital structure is essential for ensuring financial stability, minimizing costs, and maximizing shareholder value. Capital structure is critical one among all the aspects of capital investment decisions since firm's performance is affected by such determinations. So while deciding about capital structure proper attention and care must be paid. Capital structure is essential component of balance sheet indeed; capital

structure is part of financial structure .actually capital structure of an enterprise is combination of long-term debt, equity and preference shares (Kim et al., 2023).

According to Hirtle and Stiroh (2007), Miller and Modigliani's postulation is only valid in some theoretical contexts and lacks empirical support. Other researchers have found that the relationship between the capital structures and the performances of various retail banks is largely dependent on context-related issues such as the industry, country, growth, and strategy (Carlson, 2018; Kothari, 2018). However, contrary to Miller and Modigliani's view, other researchers have also argued that the capital structure aspect is an active strategy undertaken by retail banking firms and that such strategies are dynamic and not fixed over a period (Barstow, 2019; Deesomak & Thomas, 2007).

Several related studies have addressed the effects of capital structure on the retail bank financial performances, even though some of the findings have contradicted each other. This kind of mixed evidence and assumptions have provoked researchers to further examine the influence of capital-structure-related decisions on the financial performance of retail banks. Fitzsimmons (2017) maintained that the relevance of financing decisions could not be overemphasized because most of the factors that have been attributed to risks in retail banks can be effectively mitigated using financial decisions and strategies that drive the achievement of objective and growth in an organization.

There is a relationship between capital structure ratios and profitability ratios. Firms using short term debt have more shareholder value and market value while those firms using long term debt decreases profitability. The impact of capital structure on the profitability of Nepalese manufacturing companies is a critical consideration in their financial decision-making processes. In Nepal, where manufacturing plays a pivotal role in the economy, understanding how different financing options affect profitability is essential for sustainable growth and competitiveness (Anozie et al., 2023). Nepalese manufacturing firms often face unique challenges in accessing financing, with limited options for debt and equity capital compared to more developed markets. Consequently, their capital structure decisions significantly influence profitability. Optimal capital structure choices can lead to enhanced profitability by leveraging debt to benefit from tax shields and lower cost of capital, while excessive debt may increase financial risk and interest expenses, ultimately affecting profitability. Striking the right balance between debt and equity financing is crucial for Nepalese manufacturing companies to maximize profitability, maintain financial stability, and sustain long-term growth in a dynamic economic environment.

## 1.2 Problem Statement

The influence of capital structure on the financial performance of retail manufacturing, according to Pinto et al. (2017), has been a topic of empirical study in the field of finance administration. Even when dividends or shares are not held so closely, the equity owners are usually large in their numbers while a reasonable proportion of shareholders control a significant percentage of the retail shares. Such trends have often contributed to the tendency of these shareholders to have fewer interests to keep in check the managers who, when given such freedom, tend to pursue different objectives that are parallel to that of equity owners. Retail banks in the Nepal are known to have unique characteristics that seem to render them attractive for investigation. One aspect is that they are secured with relatively high backing to their assets, which sustains their operations (Hawaldar et al., 2016). Financing choices and equity performance are closely tied to the underlying assets that are valued and held at the prevailing market value on the financial position statement (Amadeo, 2020). Further the banking sector of Nepal is assumed to be a much secured sector of investment to the investor. Following are the problem question of the studies of the studies.

- i. What are the current status of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility, size, return on assets and return on equity of Nepalese manufacturing companies?
- ii. Whether there are any relationship of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size to the return on assets and return on equity of Nepalese manufacturing companies?
- iii. Do the total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size impact to the return on assets and return on equity of Nepalese manufacturing companies?

## 1.3 Objective of the Study

The main objective of the research is to analysis the impact of the capital structure to the profitability of the Manufacturing Companies in Nepal. More objectives are mention below they are on the basis of problem question.

- To assess the current status of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility, size, return on assets and return on equity of Nepalese manufacturing companies.

- To examine the relationship of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size to the return on assets and return on equity of Nepalese manufacturing companies.
- To analyze the total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size impact to the return on assets and return on equity of Nepalese manufacturing companies.

#### **1.4 Hypotheses**

The hypothesis statement of the research are following.

##### Hypotheses 1

There are a significant relationship of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size to the return on assets and return on equity of Nepalese manufacturing companies.

##### Hypotheses 2

There are significant total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size impact to the return on assets and return on equity of Nepalese manufacturing companies.

#### **1.5 Rationale of the study**

By establishing the relationship between capital structure and profitability, I was able to establish the most suitable mix of capital that could result in the maximum performance of the manufacturing in terms of profitability, shareholders earnings, and other benefits. Capital structure components such as preferred stock, secured debt, and common stock equity were used as independent variables, and they were manipulated to test their impacts on the dependent variables. The dependent variables were testable, market share, survival, liquidity, deposits, and working capital ratio, which could be examined statistically. I adopted a quantitative method and causal comparative research design. Capital structure was assumed to be a form of finance determined by secured debt to common stock equity ratio compared to preferred stock to common stock equity ratio. The choice of financing that is likely to yield higher growth of dividend is expected to come into action, including reduced cost of capital, especially if the administrators and shareholders in the retail banking sectors are well disciplined and informed.

A company can be said to have good corporate value if it has debt that is smaller than equity. Equity can be increased by increasing the company's share by providing signals or

information to investors that the company has a good performance, so that investors are interested in investing in the company. Investors tend to invest their capital in companies that have good quality. If investors invest in a company, the company's equity will increase and will have an impact on the increasing the company value. It can be concluded that the higher the value of capital structure, the higher the value of the company. In accordance with signaling theory, a company must present complete, relevant, and accurate information about the company's capital structure because the information is needed by investors in making investment decisions that can affect company value. And in the end it affects the achievement of goals to maximize shareholder welfare.

### **1.6 Limitations of the Study**

- (i) The findings from the manufacturing sector may not be generalizable to other sectors of the Nepalese economy due to industry-specific factors.
- (ii) The manufacturing sector in Nepal is not as extensive as in larger economies, which might result in a limited number of companies available for study and they are only three sample companies.
- (iii) Data are collected from annual report of the manufacturing companies and they are only of ten year data from 2014-2023.

## CHAPTER-II

### LITERATURE REVIEW

#### 2.1 Theoretical Review

##### Profitability

The decision to pay dividends starts with profit. That is why it makes sense to consider profitability as a threshold factor and profit level as one of the most important factors that can influence decisions on paying dividends and stock prices. The theory suggests that dividends are usually paid on annual profits, representing the company's ability to pay out dividends. It is therefore unlikely that companies that suffer. The pecking order hypothesis suggests that companies first finance investments with internal financing and that if external financing is required, companies prefer debt financing rather than equity financing to reduce the costs of asymmetric information and other transaction costs (Myers,1984).

##### Capital structure theories

Capital structure theories explore how firms finance their operations and growth through a mix of debt and equity. These theories attempt to understand the impact of capital structure decisions on a company's value and overall financial performance. Here are the key capital structure theories:

#### 1. Modigliani-Miller Theorem (M&M Proposition)

Without Taxes (1958)

Proposition I: The value of a firm is unaffected by its capital structure. This means that under certain conditions, whether a firm is financed by debt or equity, its total value remains the same.

$$V_L = V_U$$

$V_L$  = Value of a levered firm (with debt)

$V_U$  = Value of an unlevered firm (without debt)

Proposition II: The cost of equity increases linearly with the firm's debt-equity ratio. As a firm takes on more debt, equity investors require a higher return due to increased risk.

$$R_E = R_A + (R_A - R_D) \frac{D}{E}$$

$R_E$  = Cost of equity

$R_A$  = Cost of capital of an all-equity firm

$R_D$  = Cost of debt

$D$  = Debt

$E$  = Equity

With Taxes (1963)

Proposition I with Taxes: The value of a firm increases with leverage due to the tax shield on debt. Interest payments are tax-deductible, reducing taxable income and increasing firm value.

$V_L = V_U + T_C D$

Where:

$T_C$  = Corporate tax rate

## 2. Trade-Off Theory

The Trade-Off Theory suggests that firms balance the benefits and costs of debt to determine their optimal capital structure. The key benefit is the tax shield from interest payments, while the costs include bankruptcy risk and financial distress (Ayalew, 2021).

Optimal Capital Structure  $\Rightarrow$  Tax Shield Benefits = Bankruptcy Costs

## 3. Pecking Order Theory

The Pecking Order Theory posits that firms prefer internal financing (retained earnings) over external financing. If external financing is needed, firms prefer debt over equity due to lower issuance costs and adverse selection (Ali & Faisal, 2020).

Order of financing preference:

Internal funds (retained earnings)

Debt

Equity

## 4. Agency Costs Theory

This theory explores the conflicts of interest between different stakeholders, primarily between shareholders and debt holders, and managers and shareholders. Agency costs arise from these conflicts and influence capital structure decisions (Noreen, 2019).

**Debt as a disciplinary mechanism:** Debt can limit managerial discretion and reduce agency costs by imposing mandatory interest payments.

**Equity dilution:** Issuing new equity can dilute existing shareholders' control, leading to potential agency conflicts.

## 5. Market Timing Theory

The Market Timing Theory suggests that firms time their financing decisions based on market conditions. Firms prefer to issue equity when stock prices are high and issue debt when interest rates are low (Boshnak, 2023).

### **Comparison and Applications**

**M&M Theorem:** Provides a foundation for understanding capital structure but relies on unrealistic assumptions (no taxes, no bankruptcy costs, perfect markets).

**Trade-Off Theory:** Recognizes the real-world implications of taxes and bankruptcy costs, suggesting an optimal debt level.

**Pecking Order Theory:** Highlights practical financing preferences based on information asymmetry and issuance costs.

**Agency Costs Theory:** Focuses on stakeholder conflicts and their impact on capital structure.

**Market Timing Theory:** Emphasizes the influence of market conditions on financing decisions.

### **Practical Implications**

**Optimal Debt Levels:** Firms strive to balance the tax benefits of debt with bankruptcy and agency costs.

**Financing Hierarchy:** Firms often follow the pecking order, using internal funds first, then debt, and equity as a last resort.

**Market Conditions:** Timing the market can affect financing choices, with firms leveraging favorable conditions to optimize their capital structure.

## **2.2 Empirical Review**

### **2.2.1 Articles Review in International Context**

Ombuh et al. (2024) investigated how the capital structure influences the financial performance of non-bank financial institutions listed on the Indonesia Stock Exchange in the year 2022. The study focuses on two key dependent variables: the Return on Assets ratio and the return on equity ratio. The independent variables, represented by the capital structure, encompass the debt-to-assets ratio and the debt to-equity ratio. The results obtained through regression analysis of the data unveil a significant negative impact of the capital structure on financial performance, particularly affecting the return on equity. These

findings underscore the importance of non-bank financial institutions exercising caution when managing capital resources secured through debt financing. Excessive reliance on debt within the company's capital structure could potentially elevate financial burdens, ultimately leading to a reduction in overall profitability. Consequently, prudent capital management practices are recommended to maintain financial stability and bolster long-term prosperity.

Nuraeni (2024) investigated the interaction between capital structure, net profit margin, and company value in the manufacturing sector in Indonesia. The goal is to gain insight into how these factors interact and affect the overall value of a company in a particular region and industry. This analysis uses quantitative methods based on financial data and relevant metrics for a sample of 30 manufacturing companies operating in Indonesia. This study examined the relationship between capital structure, net profit margin, and company value through statistical analysis and linear regression modeling techniques with SPSS version 26. The results showed that capital structure net profit margin significantly affected the company's value in the manufacturing industry. The capital structure reinforces the effect of the net profit margin on the company's value.

Handini (2024) examined how financial ratios, capital structure, and economic value added (EVA) affect Indonesia Stock Exchange-listed food and beverage manufacturers' financial performance. The study examined 14 companies as a sample and used financial statements from the Indonesia Stock Exchange website as secondary data. Descriptive statistical tests, classical assumption tests, multiple linear analysis, and hypothesis tests using t, F, and determination coefficient tests are some ways that data can be analyzed. The study found that financial ratio negatively affects the financial performance of Indonesia Stock Exchange-listed food and beverage companies. Capital structure variables do not significantly affect financial performance for Stock Exchange-listed food and beverage manufacturing companies. Economic value added (Eva) doesn't significantly affect companies that make food and drinks listed on the Indonesia Stock Exchange. Food and drink companies listed on the Indonesia Stock Exchange can make more money thanks to financial ratio, capital structure, and Eva.

Haekal and Tannady (2023) determined how the financial structure of publicly traded mining companies on the Indonesia Stock Exchange (IDX) affects their profitability. The debt-to-equity ratio (DER), which represents the financial structure in this study, is an independent variable. Profitability is a dependent variable that is assessed using the Return

on Equity (ROE) ratio. Secondary data from the financial reports of mining companies listed on the IDX from 2020 to 2022 was used in this study. The purposive sampling method was used to choose the sample. Over the course of three years, a total of 63 data points from 21 mining companies listed on the IDX were gathered to satisfy the requirements. Multiple linear regression analyses were used in this study to look at how the variables related to one another. The results of the regression analysis show that both aspects of the financial structure significantly affect both aspects of profitability at the same time. The Return on Equity (ROE) dimension is significantly impacted by solely the debt-to-equity ratio (DER) dimension, though.

Kim et al. (2023) evaluated the FV of ICT companies in terms of profitability efficiency using data envelopment analysis. In addition, this study applies a Tobit regression and Kruskal-Wallis one-way ANOVA to identify the impact of leverage, liquidity, and firm size, which are major capital structure factors influencing FV. The analysis yields three main results. First, in the ICT industry, small and medium companies tend to have better profitability efficiency than companies of other sizes. Second, only small and medium ICT manufacturing companies' profitability efficiency is positively impacted by the current ratio. Third, only mid-sized service companies' profitability efficiency is positively impacted by the debt-equity ratio. The results have policy and practical implications for improving the FV of ICT companies.

Demiraj et al. (2023) analyzed the impact of capital structure on the profitability of the tourism industry in the European continent. This study is motivated by the importance that the tourism industry has for the economic development of European countries. The sample includes all European-listed firms in the tourism industry. Data is extracted from the Thomson Reuters (Refinitiv) database for a period of 10 years, i.e., 2010-2019. Panel data regression is used to determine the impact of the debt-to-assets ratio on the return on assets. The results reveal that the debt ratio has a significant negative impact on ROA, but not on ROE.

Nguyen et al. (2023) analyzed the impact of capital structure on the profitability of plastic and packaging companies listed on the Vietnam Stock Exchange - VNX. Using Qualitative Research (Synthetic Methods; Statistical methods, description; Inductive and interpretive methods) and quantitative research methods (linear regression methods). The author has identified two independent variables that represent a capital structure that strongly affects

the profitability of enterprises, including: (1) Short-term debt ratio (STD); (2) Long-term debt ratio (LTL).

Boshnak (2023) investigated the impact of capital structure on the performance of firms listed on the Saudi Stock Exchange (Tadawul). A generalized method of moments (GMM) estimation is employed to estimate models to enable hypothesis testing, thereby addressing any autocorrelation, hetero causticity and endogeneity issues. The results indicate that short-term debt, long-term debt, total debt and debt-to-equity ratios all have a significant negative impact on firm operational performance (return on assets), while long-term debt, total debt and debt to equity have such an impact on firm financial performance (return on equity) and market performance (in terms of Tobin's Q). The results also show that increases in sales growth, the degree of insider ownership, and firm size and age in general positively impact firm performance, while asset tangibility and liquidity have a more ambiguous impact.

Anozie et al. (2023) examined the impact of capital structure on the financial performance of Nigerian oil and gas companies. Using an ex-post facto research methodology, the short-term debt to total asset, long-term debt to total asset, total debt to total equity, and return on asset variables were investigated as proxies for capital structure and financial performance, respectively. Based on the data's availability at the time of the inquiry, the study used an easy sampling strategy to gather secondary data. Descriptive statistics and panel regression analysis were used to analyze the data. The analysis' findings shows that while long-term debt to total assets has a negative significant influence on return on assets, short-term debt to total assets and total debt to total equity had positive insignificant impacts.

Habibniya et al. (2022) investigated the capital structure (CapSt) effect on firms' profitability. By taking annual data of the telecom industry from 2012 to 2020 in the USA, unbalanced cross-sectional data (panel data) comprising 421 firm-year observations for 72 firms were studied using pooled panel regression, univariate analysis, correlation, and descriptive statistics models. They decided to test the impact of CapSt (Total Liabilities to Total Assets (TLsTAs) and Total Equity to Total Assets (TETAs)) on the profitability (Return on Assets (ROA) and Return on Equity (ROE)) of firms in the telecommunication industry in the USA. The results reveal that the ratio of TLsTAs has a significant impact on ROA, and TETAs has a significant impact on ROA. However, TLsTAs and TETAs have no impact on ROE.

Olusola et al. (2022) examined the impact of capital structure on a firm's performance in Hong Kong, which has been an unsolved problem in the field of financial management. Eventually, for both capital structure and performance, a panel data model has been adopted and the empirical model used Return on Assets (ROA) as a proxy for performance, while total debt (TDR) was proxies for capital structure. The result showed a small effect in the negative direction. Therefore, the results of the impact of Capital structure on performance proved to be inconclusive. However, taking into consideration that Hong Kong has a different economic system, and the economy has many characteristics that vary from other countries in aspects such as, consumer consumption, spending behavior, and saving habits which serve as influence to firms and individuals. On this basis, concepts such as cultural, political, and institutional differences should be taken into consideration when assessing the impact of capital structure on firm's performance.

Ngoc et al. (2021) determined the impact of capital structure on profitability (represented by ROA and ROE indicators). 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. For the case of profitability represented by ROE, the study has not found statistical evidence to support the impact of capital structure of logistics enterprises in this period.

Ayalew (2021) studied the empirical relationship between capital structure, as measured by total and short-term debt ratios, and profitability of private banks in Ethiopia. Using panel fixed effects. A survey of 16 private banks are included in the study. Based on the regression analysis results, capital structure variables and some bank-specific characteristics explain a substantial part of the variations in bank profitability. Higher profitability measures of ROA and net interest margin tend to be associated with relatively higher total and short-term debt ratios, loan to deposit ratios, and credit risks. Besides, older banks are in a better position than younger counterparts in terms of profitability. The impact of size is found to be significantly negative, at least for the ROA model, implying that Ethiopian private banks are operating below their optimal capacity. Mixed results were found pertaining the coefficient estimates of coos-income ratio and employee productivity.

Ayaz et al. (2021) examined the relationships between leverage and firm's performance in Malaysia by framing the relationship under the tradeoff theory and agency cost theory. Based on insights drawn from the existing literature, we opted for fixed effects and system two-steps GMM models to establish the hypothesized relationship between leverage and

performance. They analyzed 528 nonfinancial firms listed on the Bursa Malaysia Stock exchange for the period of 12 years. The outcomes show that the leverage ratio improves the firm performance, consistent with leverage serving as an effective strategy in constraining managers from building their personal empire, revealing a proportionately greater benefit for Malaysian firms than the cost to debt financing. The authors also find that a positive relationship between leverage and firm performance switch to the negative when the level of leverage reaches beyond the optimal level. Consequently, switching from positive to negative indicates that debt has a twofold (nonlinear) impact on firm performance.

Ngoc et al. (2021) investigated the impact of capital structure on business performance of 25 firms in the real estate industry listed on Ho Chi Minh City Stock Exchange. Correlation and regression analysis are conducted for research finding. The research results show that capital structure has a negative impact on the business performance. In addition, the study has also found that tangible asset (TANG) shows a positive impact on performance of real estate firms and is consistent in all 03 regression models according to FGLS. This shows that the more listed real estate firms have tangible fixed asset, the more effective is their business performance. With control variables including firm size (SIZE), liquidity (LIQ), asset growth (GROWTH), economic growth (GDP), inflation rate (INF), the study found no evidence to conclude the relationship between these control variables and business performance.

Fekadu Agmas (2020) examined the effects of capital structure on the profitability of construction firms in Ethiopia. To test hypotheses of the study, time series secondary data were gathered from the sample of 30 grade one construction companies in Ethiopia during the 2011–2015 period. To examine the correlation among capital structures and its determinants, random effect multiple regression models were used. The study indicates that capital structure measured by debt to equity and long-term debt to total assets has a significant positive correlation with return on equity (ROE) and return on assets (ROA) of sampled construction companies. However, the capital structure measured by debt to assets has a significant negative correlation with ROE and ROA of sampled construction companies in Ethiopia.

Nguyen and Nguyen (2020) explored the impact of capital structure on firm performance in the context of Vietnam. The paper investigates the different effect of capital structure on firm performance in state-owned and non-state enterprises listed on the Vietnam stock

market. The panel data of research sample includes 488 non-financial listed companies on the Vietnam stock market for a period of six years, from 2013 to 2018. The Generalized Least Square (GLS) is employed to address econometric issues and to improve the accuracy of the regression coefficients. In this research, firm performance is measured by return on equity (ROE), return on assets (ROA), and earnings per share (EPS). The ratios of short-term liabilities, long-term liabilities, and total liabilities to total assets are proxy for capital structure. Firm sizes, growth rate, liquidity, and ratio of fixed assets to total assets are control variables in the study. The empirical results show that capital structure has a statistically significant negative effect on the firm performance. The result also shows this effect is stronger in state-owned enterprises than non-state enterprises in Vietnam.

Ali and Faisal (2020) investigated and measures the impact of capital structure, profitability and financial performance on the success of the business organization. Capital structure of the business organization refers to the proportion of external funds and internal funds, i.e., debt and equity. In Saudi Arabia, petrochemicals companies are working on equity, but financial performance. The research is based upon secondary data available on the websites of petrochemicals companies of Saudi Arabia. Financial Ratio variability analysis and Trend Indices of financial ratios (TICBI) measure and compare the financial variability and sensitivity of financial ratios of the business organization. Correlation between Trend Indices (TICBI) of independent variable and dependent variables are to be calculated to know the impact of changes in debt equity on other dependent variables. The results reveal the unexpected performance of petrochemicals companies due to under-utilization of the resources caused by low demand and lower prices of the products governed by some internal and external factors. The study finds that size, demand, cost of production, profitable streams of products, and low cost capital in external funds are the factors responsible for overall growth development of the petrochemicals industry of Saudi Arabia.

Noreen (2019) examined the effect of capital structure on profitability of Islamic and conventional banks; second, it determines that whether the capital structure of Islamic and conventional banks is same or not. A sample of ten banks was taken over the period 2006-2016. Independent samples T-test was used for finding the comparison between the capital structure of Islamic and conventional banks while for assessing the impact of capital structure on profitability, regression analysis (Fixed effects model) was used. Results showed that the capital structure of both types of banks was similar except for bank size which differed significantly. They ROA was negatively correlated to the capital structure

of both conventional and Islamic banks. In contrast, ROE was positively correlated to the capital structure of both conventional and Islamic banks. In addition to that, two explanatory variables were positively correlated while two were negatively correlated to EPS for both Islamic and conventional banks. This study proves the existence of prominent theories of capital structure (pecking order theory and trade-off theory) for both conventional and Islamic banks in Pakistan and also validates the economies of scale.

Singh and Bagga (2019) examined the effect of capital structure on the profitability of firms, but most of them belong to other parts of the world, and only few studies have been conducted in India. Thus, the present study has been undertaken to evaluate the effect of capital structure on the profitability of Nifty 50 companies listed on National Stock Exchange. The data has been analyzed by using descriptive statistics, correlation and multiple panel data regression models. Four different regression models have been used to study the relationship between capital structure and profitability. In these models, they study the individual effect of total debt and total equity ratios on profitability, that is, ROA and ROE.

Chang et al. (2019) investigated the relationship between capital structure and profitability. To examining the relationship between capital structure and profitability, they apply correlation and regression analysis on dataset from 2003 to 2016 for the firms in the Four Asian Tiger economies. This study finds a significantly negative relationship between leverage and profitability, a significantly positive relationship between growth and leverage in Taiwan, Korea and Hong Kong and a significantly positive relationship between size and leverage in each country.

Ghayas and Akhter (2018) examined and analyzed the impact of capital structure decision on the firm's profitability by using a sample of 35 Indian pharmaceutical companies listed on Bombay Stock Exchange (BSE) during the period of 5 years from 2012 to 2016. Regression Analysis is used to measure the extent and nature of the relationship. Capital structure variables used in the study are ratio of long-term debt to total assets (LDA), ratio of short-term debt to total assets (SDA) and ratio of Total debt to total assets (DA) while profitability has been measure by Return on Equity (ROE). Firms Size (SIZE) and Sales growth (GROW) are also used as control variables. Results reveal a positive effect of SDA and DA on ROE, while a weak-to-no effect was found of LDA on ROE.

Revathy and Santhi (2016) investigated the impact of capital structure on profitability of the manufacturing companies in India and attempts to establish the hypothesized relationship as to how far the capital structure variables affect the business revenue of companies and what the interrelationship is between capital structure variable and profitability. This study is carried out after categorizing the selected manufacturing companies into three categories based on two attributes, viz. stages and period. First, as per phases, manufacturing companies are grouped into pioneering stage, growth stage, and consolidation stage. Second, these companies are classified into pre and post-merger, this study tries to establish the hypothesized relationship that capital structure variables has significant impact on profitability of manufacturing companies in India. A sample of seventy companies was chosen by multi-stage sampling techniques. The study reveals that there has been a strong one-to-one relationship between capital structure variable and Profitability and increase in Debt Equity Ratio inversely affects profit of the manufacturing companies listed in Bombay Stock Exchange in India.

Ahmad (2014) examined the impact of capital structure on profitability of cement sector of Pakistan. A panel data of 16 firms listed on the Karachi Stock Exchange was put under study for a period of 6 years (2005-2010). Two major sets of variables are used: to indicate capital structure i.e. Debt/Equity Ratio, Debt Ratio, Interest Coverage Ratio, Short term debt to asset, and Long term debt to assets and for Profitability i.e. Return On Equity. The variables were analyzed using Fixed and Random effect methodology by using STATA 11. The results implied that profitability is significantly related to capital structure. Specifically, profitability was inversely related to the amount of liability in a company's capital structure. Therefore, the more debt a firm incur, the worse its earnings is hurt.

Shubita et al (2012) examined the effect of capital structure on profitability of the industrial companies listed on Amman Stock Exchange during a six-year period (2004-2009). The problem statement to be analyzed in this study is: Does capital structure affect the Industrial Jordanian companies? The study sample consists of 39 companies. Applying correlations and multiple regression analysis, the results reveal significantly negative relation between debt and profitability. This suggests that profitable firms depend more on equity as their main financing option.

**Table 1***Summary of Empirical Review in International Context*

Author/ date	Title	Objectives	Methodology	Findings and conclusions
Ombuh et al. (2024)	Impact of Capital Structure on Firm Performance of Financial Companies Listed on the Indonesia Stock Exchange.	To investigated how the capital structure influences the financial performance of non-bank financial institutions	The study focuses on two key dependent variables: the Return on Assets ratio and the return on equity ratio. The independent variables, represented by the capital structure, encompass the debt-to-assets ratio and the debt to-equity ratio.	The results obtained through regression analysis of the data unveil a significant negative impact of the capital structure on financial performance, particularly affecting the return on equity.
Nuraeni (2024)	Factors that affect the profitability ratio in manufacturing sector companies for the period 2018-2022.	To investigated the interaction between capital structure, net profit margin, and company value in the manufacturing sector in Indonesia.	This analysis uses quantitative methods based on financial data and relevant metrics for a sample of 30 manufacturing companies operating in Indonesia.	The results showed that capital structure net profit margin significantly affected the company's value in the manufacturing industry. The capital structure reinforces the effect of the net profit margin on the company's value.
Handini (2024)	Financial Ratios, Capital Structure, and EVA Impact on IDX Food and Beverage Manufacturers 2019-2021 Performance.	To examined how financial ratios, capital structure, and economic value added (EVA) affect Indonesia Stock Exchange	The study examined 14 companies as a sample and used financial statements from the Indonesia Stock Exchange website as secondary data. Descriptive statistical tests, classical assumption tests, multiple linear analysis, and hypothesis tests using t, F, and determination coefficient tests are some ways that data can be analyzed.	The study found that financial ratio negatively affects the financial performance of Indonesia Stock Exchange-listed food and beverage companies. Capital structure variables do not significantly affect financial performance for Stock Exchange-listed food and beverage manufacturing companies. Economic value added (Eva) doesn't significantly affect companies that make food and drinks listed on the Indonesia Stock Exchange.
Haekal and Tannady (2023)	The Impact of Capital Structure on Profitability of Mining Companies.	To determined how the financial structure of publicly traded mining companies on the	The purposive sampling method was used to choose the sample. Over the course of three years, a total	The results of the regression analysis show that both aspects of the financial structure significantly affect both aspects of

		Indonesia Stock Exchange (IDX) affects their profitability.	of 63 data points from 21 mining companies listed on the IDX were gathered to satisfy the requirements. Multiple linear regression analyses were used in this study to look at how the variables related to one another.	profitability at the same time. The Return on Equity (ROE) dimension is significantly impacted by solely the debt-to-equity ratio (DER) dimension, though.
Kim et al. (2023)	The Impact of Capital Structure on the Profitability Performance of ICT Firms.	To evaluated the FV of ICT companies in terms of profitability efficiency using data envelopment analysis.	In addition, this study applies a Tobit regression and Kruskal-Wallis one-way ANOVA to identify the impact of leverage, liquidity, and firm size, which are major capital structure factors influencing FV.	The analysis yields three main results. First, in the ICT industry, small and medium companies tend to have better profitability efficiency than companies of other sizes. Second, only small and medium ICT manufacturing companies' profitability efficiency is positively impacted by the current ratio. Third, only mid-sized service companies' profitability efficiency is positively impacted by the debt-equity ratio.
Demiraj et al. (2023)	Capital structure and profitability: Panel data evidence from the European Tourism industry.	To assessed the impact of capital structure on the profitability of the tourism industry in the European continent.	This study is motivated by the importance that the tourism industry has for the economic development of European countries. The sample includes all European-listed firms in the tourism industry.	The results reveal that the debt ratio has a significant negative impact on ROA, but not on ROE.
Nguyen et al. (2023)	Relationship between capital structure and firm profitability: Evidence from Vietnamese listed companies.	To analyzed the impact of capital structure on the profitability of plastic and packaging companies listed on the Vietnam Stock Exchange - VNX.	Using Qualitative Research (Synthetic Methods; Statistical methods, description; Inductive and interpretive methods) and quantitative research methods (linear regression	The author has identified two independent variables that represent a capital structure that strongly affects the profitability of enterprises, including: (1) Short-term debt ratio (STD); (2) Long-term debt ratio (LTL).

Boshnak (2023)	The impact of capital structure on firm performance: evidence from Saudi-listed firms.	To investigate the impact of capital structure on the performance of firms listed on the Saudi Stock Exchange (Tadawul).	methods). A generalized method of moments (GMM) estimation is employed to estimate models to enable hypothesis testing, thereby addressing any autocorrelation, hetero-causality and endogeneity issues.	The results indicate that short-term debt, long-term debt, total debt and debt-to-equity ratios all have a significant negative impact on firm operational performance (return on assets), while long-term debt, total debt and debt to equity have such an impact on firm financial performance (return on equity) and market performance (in terms of Tobin's Q).
Anozie et al. (2023)	Impact of capital structure on financial performance of oil and gas firms in Nigeria.	To examine the impact of capital structure on the financial performance of Nigerian oil and gas companies.	Using an ex-post facto research methodology, the short-term debt to total asset, long-term debt to total asset, total debt to total equity, and return on asset variables were investigated as proxies for capital structure and financial performance, respectively.	The analysis' findings shows that while long-term debt to total assets has a negative significant influence on return on assets, short-term debt to total assets and total debt to total equity had positive insignificant impacts.
Habibniya et al. (2022)	Impact of capital structure on profitability: panel data evidence of the telecom industry in the United States.	To investigate the capital structure (CapSt) effect on firms' profitability.	Using pooled panel regression, univariate analysis, and descriptive statistics models.	The results reveal that the ratio of TLsTAs has a significant impact on ROA, and TETAs has a significant impact on ROA. However, TLsTAs and TETAs have no impact on ROE.
Olusola et al. (2022)	The Impact of capital structure on firm performance- evidence from large companies in Hong Kong stock exchange.	To examine the impact of capital structure on a firm's performance in Hong Kong, which has been an unsolved problem in the field of financial management	Eventually, for both capital structure and performance, a panel data model has been adopted and the empirical model used Return on Assets (ROA) as a proxy for performance, while total debt (TDR) was proxies for capital structure.	The result showed a small effect in the negative direction. Therefore, the results of the impact of Capital structure on performance proved to be inconclusive. However, taking into consideration that Hong Kong has a different economic system, and the economy has many characteristics that vary from other

Ngoc et al. (2021)	The Impact of capital structure on financial performance of logistic service providers listed on Ho Chi Minh City stock exchange.	To determine the impact of capital structure on profitability (represented by ROA and ROE indicators).	Applying the quantitative method (with models of Pool OLS, FEM, REM and FGLS),	countries in aspects such as, consumer consumption, spending behavior, and saving habits which serve as influence to firms and individuals. To the research results have proven that capital structure has a negative impact on profitability represented by ROA of firms. For the case of profitability represented by ROE, the study has not found statistical evidence to support the impact of capital structure of logistics enterprises in this period.
Ayalew (2021)	Capital structure and profitability: Panel data evidence of private banks in Ethiopia.	To studied the empirical relationship between capital structure, as measured by total and short-term debt ratios, and profitability of private banks in Ethiopia.	Using panel fixed effects. A survey of 16 private banks are included in the study	capital structure variables and some bank-specific characteristics explain a substantial part of the variations in bank profitability. Higher profitability measures of ROA and net interest margin tend to be associated with relatively higher total and short-term debt ratios, loan to deposit ratios, and credit risks. Besides, older banks are in a better position than younger counterparts in terms of profitability
Ayaz et al. (2021)	An empirical investigation on the impact of capital structure on firm performance: evidence from Malaysia.	To examined the relationships between leverage and firm's performance in Malaysia by framing the relationship under the tradeoff theory and agency cost theory.	Based on insights drawn from the existing literature, we opted for fixed effects and system two-steps GMM models to establish the hypothesized relationship between leverage and performance. They analyzed 528 nonfinancial firms listed on the Bursa Malaysia Stock exchange for the period of	The outcomes show that the leverage ratio improves the firm performance, consistent with leverage serving as an effective strategy in constraining managers from building their personal empire, revealing a proportionately greater benefit for Malaysian firms than the cost to debt financing. The authors also find that a positive relationship between leverage and

			12 years.	firm performance switch to the negative when the level of leverage reaches beyond the optimal level. Consequently, switching from positive to negative indicates that debt has a twofold (nonlinear) impact on firm performance.
Ngoc et al. (2021)	The impact of capital structure on business performance of real estate enterprises listed at Ho Chi Minh City stock exchange.	To investigated the impact of capital structure on business performance of 25 firms in the real estate industry listed on Ho Chi Minh City Stock Exchange.	Correlation and regression analysis are conducted for research finding.	The research results show that capital structure has a negative impact on the business performance. In addition, the study has also found that tangible asset (TANG) shows a positive impact on performance of real estate firms and is consistent in all 03 regression models according to FGLS. This shows that the more listed real estate firms have tangible fixed asset, the more effective is their business performance.
Fekadu Agmas (2020)	Impacts of capital structure: profitability of construction companies in Ethiopia.	To examined the effects of capital structure on the profitability of construction firms in Ethiopia.	Multiple regression models were used.	The study indicates that capital structure measured by debt to equity and long-term debt to total assets has a significant positive correlation with return on equity (ROE) and return on assets (ROA) of sampled construction companies.
Nguyen and Nguyen (2020)	The impact of capital structure on firm performance: Evidence from Vietnam.	To explored the impact of capital structure on firm performance in the context of Vietnam.	The paper investigates the different effect of capital structure on firm performance in state-owned and non-state enterprises listed on the Vietnam stock market.	The Generalized Least Square (GLS) is employed to address econometric issues and to improve the accuracy of the regression coefficients. In this research, firm performance is measured by return on equity (ROE), return on assets (ROA), and earnings per share (EPS). The ratios of short-term liabilities, long-term liabilities,

Ali and Faisal (2020)	Capital structure and financial performance: A case of Saudi petrochemical industry.	To investigated and measures the impact of capital structure, profitability and financial performance on the success of the business organization.	Correlation and regression analysis is conducted.	and total liabilities to total assets are proxy for capital structure. Firm sizes, growth rate, liquidity, and ratio of fixed assets to total assets are control variables in the study. The study finds that size, demand, cost of production, profitable streams of products, and low cost capital in external funds are the factors responsible for overall growth development of the petrochemicals industry of Saudi Arabia.
Noreen (2019)	Impact of capital structure on profitability: A comparative study of Islamic and conventional banks of Pakistan.	To examined the effect of capital structure on profitability of Islamic and conventional	Independent samples T-test was used for finding the comparison between the capital structure of Islamic and conventional banks while for assessing the impact of capital structure on profitability, regression analysis (Fixed effects model) was used.	Results showed that the capital structure of both types of banks was similar except for bank size which differed significantly. They ROA was negatively correlated to the capital structure of both conventional and Islamic banks. In contrast, ROE was positively correlated to the capital structure of both conventional and Islamic banks.
Singh and Bagga (2019)	The effect of capital structure on profitability: An empirical panel data study.	To examine the effect of capital structure on the profitability of firms, but most of them belong to other parts of the world, and only few studies have been conducted in India.	The data has been analyzed by using descriptive statistics, correlation and multiple panel data regression models.	To different regression models have been used to study the relationship between capital structure and profitability. In these models, they study the individual effect of total debt and total equity ratios on profitability, that is, ROA and ROE.
Chang et al. (2019)	Relationship between capital structure and profitability: Evidence from Four Asian Tigers.	To investigate the relationship between capital structure and profitability.	To examining the relationship between capital structure and profitability, they apply correlation and regression analysis	This study finds a significantly negative relationship between leverage and profitability, a significantly positive relationship between growth and leverage in Taiwan, Korea and Hong Kong and a

				significantly positive relationship between size and leverage in each country.
Ghayas and Akhter (2018)	Impact of Capital Structure on Profitability: An empirical analysis of listed firms in India.	To examined and analyzed the impact of capital structure decision on the firm's profitability	Regression Analysis is used to measure the extent and nature of the relationship.	Results reveal a positive effect of SDA and DA on ROE, while a weak-to-no effect was found of LDA on ROE.
Revathy and Santhi (2016)	Impact of capital structure on profitability of manufacturing companies in India.	To investigated the impact of capital structure on profitability of the manufacturing companies in India and attempts	This study is carried out after categorizing the selected manufacturing companies into three categories based on s a two attributes, viz. stages and period. First, as per phases, manufacturing companies are grouped into pioneering stage, growth stage, and consolidation stage.	The study reveals that there has been a strong one-to-one relationship between capital structure variable and Profitability and increase in Debt Equity Ratio inversely affects profit of the manufacturing companies listed in Bombay Stock Exchange in India.
Ahmad / (2014)	Impact of capital structure on profitability: an empirical analysis of cement sector of Pakistan	To examined the impact of capital structure on profitability of cement sector of Pakistan.	The variables were analyzed using Fixed and Random effect methodology by using STATA 11	The results implied that profitability is significantly related to capital structure. Specifically, profitability was inversely related to the amount of liability in a company's capital structure. Therefore, the more debt a firm incur, the worse its earnings is hurt.

### 2.1.2 Articles Review in National Context

Khadka and Pradhan (2023) examined the effect of firm specific factors and macroeconomic factors on the profitability of Nepalese insurance companies. Return on assets (ROA) and return on equity (ROE) are the dependent variables. The selected independent variables are firm size, liquidity, tangibility, dividend per share, premium growth, inflation, gross domestic product and money supply. The regression models are estimated to test the significance and effect of firm specific factors and macroeconomic factors on the profitability of Nepalese insurance companies. The study showed that liquidity ratio has a negative impact on return on assets and return on equity. It means that

increase in liquidity ratio leads to decrease in return on assets. In contrast, assets tangibility has a positive impact on return on assets and return on equity. It shows that higher the assets tangibility, higher would be the return on assets and return on equity. Similarly, dividend per share has a positive impact on return on assets and return on equity. It shows that higher the dividend per share, higher would be the return on assets and return on equity. Furthermore, premium growth has a positive impact on return on assets.

Chalise and Adhikari (2022) examined the impact of capital structure and firm size on financial performance of Nepalese commercial banks. The study used a sample of 14 commercial banks covering government owned, joint venture and private banks with secondary sources of data. Regression analysis was used in the estimation of functions relating the Return on Assets (ROA) and Earnings per Share (EPS) with measures of capital structure and firm size (total assets). The results revealed a negative relation of ROA and EPS with capital structure (Debt/Equity). However, it showed a positive relationship of ROA and EPS with size (total assets). The findings provided the evidence in support of high-level equity capital employed in the capital structure of Nepalese commercial banks.

Pradhan and Kafle. (2021) examined the impact of capital structure on the profitability of Nepalese commercial banks. Return on assets, return on equity and net interest margin are selected as the dependent variables. The selected independent variables are capital adequacy ratio, bank size, total debt to total assets ratio, total debt to total equity ratio and short-term debt to total assets ratio. The data is collected from the Banking and Financial Statistics published by Nepal Rastra Bank and annual reports of the selected commercial banks. The regression models are estimated to test the impact of capital structure on the profitability of Nepalese commercial banks. The study showed that short-term debt to total assets ratio has a negative impact on return on equity, return on assets and net interest margin. It indicates that increase in short-term debt to total assets ratio leads to a decrease in return on equity, return on assets and net interest margin. Similarly, total debt to total assets ratio has a negative impact on return on assets. It indicates that increase in total debt to total assets ratio leads to a decrease in return on assets. Likewise, total debt to total equity ratio has a negative impact on return on equity, return on assets and net interest margin.

Bhattarai (2020) examined the effects of capital structure on financial performance of insurance companies in Nepal. Data were collected from the annual report of the respective insurance companies' web site. The panel data of 14 Nepalese insurance companies, leading to a total of 126 observations. The data were analyzed using pooled OLS model, random

effect model and fixed effect model. The study has been return on assets as dependent variable whereas total debt ratio, equity to total assets, leverage, firm size, and liquidity ratio and assets tangibility are independent variables. The result concluded that equity to total assets, leverage, and assets tangibility have effects the financial performance in Nepalese insurance companies' cases.

Jaishi (2020) examined the relationship between the capital structure and the profitability of commercial banks in Nepal. In this connection, 18 Nepalese commercial banks were selected as study samples and their financial data were gathered from NRB BI Statistics and Bank Supervision Report for the period of 2010-2019. Return on Equity was used as indicator of profitability while short term debt, long term debt, deposits and total debt to assets ratio were used as a proxy of capital structure along with the control variables of bank size and assets growth. Results showed that more than 40 percent bank profitability measured by return on equity is predicted by the explanatory –capital structure variables. It is also revealed that return on equity is insignificantly positively related with long term debt and deposits whereas it is insignificant negative with short term debt and total debt. In all regression models, profitability is significantly positively related with banks size indicating that larger the size of the bank, higher is the return for shareholders.

Neupane (2020) examined the key determinants of profitability of Nepalese commercial banks. This study employs descriptive statistics to describe the profitability of Nepalese banks and its determinants. Further, the degree of correlation among different indicators of profitability and its determinants has been assessed by calculating correlation coefficient. Finally, this study has adopted a panel data regression model (Fixed Effect Model and Random Effect Model) to investigate the determinants and their impact on profitability of Nepalese commercial banks. The analysis reveals that the bank profitability measured by ROA of Nepalese commercial banks is significantly affected by concentration ratio, banking sector development, GDP growth, inflation and exchange rate significantly in opposite direction rather it is not significantly affected by the internal factors like bank size, capital base, deposit, loan, off-balance sheet activities and number of branches. Another indicator of bank profitability; NIM is significantly affected only by capital adequacy, absolute number of branches and inflation rate.

Hamal (2020) examined the impacts of liquidity ratio, leverage ratio, firm size, age of the firm and total debt on the profitability of non-life insurance companies in Nepal. The dependent variable in the study is the return on asset (ROA), which is used as a measure of

profitability. The study is based on secondary data of nine non-life insurance companies studied over a period of ten years. The data were collected from the financial statements published annually by the selected non-life insurance companies. Descriptive statistics, correlational analysis and regression models have been employed in order to test the impacts as well as the significance of the selected independent variables on ROA. The study concludes that the profitability of Nepalese non-life insurance companies increases with the increase in liquidity but decreases with the increase in leverage. However, the study establishes the insignificant relationship of firm size, firm age and total debt with profitability for the sector. The study thus suggests that non-life insurance companies should focus on the proper management of capabilities to pay liabilities to enhance profitability.

**Table 2**

*Summary of Empirical Review in Nepalese Context*

Author/ date	Title	Objectives	Methodology	Findings and conclusions
Khadka and Pradhan (2023)	Effect of firm specific and macroeconomic factors on profitability of Nepalese insurance companies.	To examined the effect of firm specific factors and macroeconomic factors on the profitability of Nepalese insurance companies.	The regression models are estimated to test the significance and effect of firm specific factors on the profitability of Nepalese insurance companies.	The study showed that liquidity ratio has a negative impact on return on assets and return on equity. It means that increase in liquidity ratio leads to decrease in return on assets. In contrast, assets tangibility has a positive impact on return on assets and return on equity.
Chalise and Adhikari / (2022)	The Impact of Capital Structure and Firm Size on Financial Performance of Commercial Banks in Nepal.	To examined the impact of capital structure and firm size on financial performance of Nepalese commercial banks.	Regression analysis was used in the estimation of functions relating the Return on Assets (ROA) and Earnings per Share (EPS) with measures of capital structure and firm size (total assets).	The results revealed a negative relation of ROA and EPS with capital structure (Debt/Equity). However, it showed a positive relationship of ROA and EPS with size (total assets). The findings provided the evidence in support of high-level equity capital employed in the capital structure of Nepalese commercial banks.
Pradhan and Kafle. (2021)	The Impact of Capital Structure on the Profitability of Nepalese Commercial Banks.	To examined the impact of capital structure on the profitability of Nepalese commercial banks. Return on assets, return on equity and net	The regression models are estimated to test the impact of capital structure on the profitability of Nepalese commercial banks.	The study showed that short-term debt to total assets ratio has a negative impact on return on equity, return on assets and net interest margin. It indicates that increase in short-term debt to total assets ratio leads to a decrease in return

		interest margin are selected as the dependent variables.		on equity, return on assets and net interest margin. Similarly, total debt to total assets ratio has a negative impact on return on assets.
Bhattarai (2020)	Effects of capital structure on financial performance of insurance companies in Nepal.	To examined the effects of capital structure on financial performance of insurance companies in Nepal.	Data were collected from the annual report of the respective insurance companies' web site. The panel data of 14 Nepalese insurance companies, leading to a total of 126 observations. The data were analyzed using pooled OLS model, random effect model and fixed effect model.	The study has been return on assets as dependent variable whereas total debt ratio, equity to total assets, leverage, firm size, and liquidity ratio and assets tangibility are independent variables. The result concluded that equity to total assets, leverage, and assets tangibility have effects the financial performance in Nepalese insurance companies' cases.
Jaishi (2020)	Capital structure and its impact on financial performance in insurance companies of Nepal.	To examined the relationship between the capital structure and the profitability of commercial banks in Nepal.	Return on Equity was used as indicator of profitability while short term debt, long term debt, deposits and total debt to assets ratio were used as a proxy of capital structure along with the control variables of bank size and assets growth.	Results showed that more than 40 percent bank profitability measured by return on equity is predicted by the explanatory –capital structure variables. It is also revealed that return on equity is insignificantly positively related with long term debt and deposits whereas it is insignificant negative with short term debt and total debt.
Neupane (2020)	Profitability determinants of Nepalese commercial banks.	To examined the key determinants of profitability of Nepalese commercial banks.	This study employs descriptive statistics to describe the profitability of Nepalese banks and its determinants. Further, the degree of correlation among different indicators of profitability and its determinants has been assessed by calculating correlation coefficient.	The analysis reveals that the bank profitability measured by ROA of Nepalese commercial banks is significantly affected by concentration ratio, banking sector development, GDP growth, inflation and exchange rate significantly in opposite direction rather it is not significantly affected by the internal factors like bank size, capital base, deposit, loan, off-balance sheet activities and number of branches.
Hamal (2020)	Factors affecting profitability of Nepalese non-life insurance companies.	To examine the impacts of liquidity ratio, leverage ratio, firm size, age of the firm and total debt on the profitability of non-life insurance companies in Nepal.	Descriptive statistics, correlational analysis and regression models have been employed	The impacts as well as the significance of the selected independent variables on ROA.

### **2.3 Research Gap**

This research is related to the impact of capital structure on profitability of Nepalese manufacturing companies. Research is done using descriptive and casual comparative research design methods. Data are collected from secondary source; sample size is only three manufacturing companies. Limited time periods in the research that is only ten years data are taken under studies. Descriptive statistics, Correlation and regression are the analysis tools for the research. Previous researcher did their research using one manufacturing as a sample; most of the research is other sector than manufacturing. They use five years for the data collection. They used only descriptive research design and analysis in done thorough descriptive statistical analysis only.

Future researcher may also use only one manufacturing for studies or all the population for the sample in the research. They may use only one dependent variable or more, Less than or more than four independent variable. They may also use a primary data under studies. Used other than the descriptive and casual comparative research design.

## CHAPTER-III

### RESEARCH METHODOLOGY

Research methodology is the specific procedures or techniques used to identify, select, process, and analyze information about a topic. In a research paper, the methodology section allows the reader to critically evaluate a study's overall validity and reliability. In this chapter, researcher presents full road map of research works.

#### 3.1 Research Design

This study has employed descriptive and casual comparative research designs to deal with issues associated with the capital structure and profitability. Descriptive research design has been used in order to identify the current status of capital structure and profitability. Moreover, the casual comparative research design is used for the comparative analysis of the independent and dependent variables using correlation and regression analysis.

#### 3.2 Population and Sample

Sampling is done by purposive sampling. Sample is selected under random basis. Similarly, financial statements of four manufacturing company for ten years research period i.e. FY 2014 to FY 2023 has been taken as sample for the same purpose.

**Table 3**

*Sample of the Manufacturing*

S.N.	Manufacturing Companies	Sample
1	Bottlers Nepal (balaju)	1
2	Bottlers Nepal (Terai)	1
3	Himalayan Distillery	1
4	Unilever Company	1
	Total	4

In mid-July 2023 there are 18 Manufacturing companies in NEPSE. Out of 18 manufacturing companies, four taken under studies. Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan Distillery and Unilever Company are the manufacturing companies for the research sample.

### **3.3 Nature and Sources of Data**

The secondary data will be used for this study. The secondary data will be employed in order to analyze the form of relationship, cause and effect associations between capital structure and profitability. Furthermore, predictive strength of such factors has also been assessed using secondary data. The data for firm specific variables including will be collect from annual reports of the sample firms recorded in the 8 database provided in their respective websites. In addition, data bank of NEPSE and SEBON will be used to extract the required data for the purpose of this study.

### **3.4 Instrument of Data Collection**

Instrument refers to the tools that are used in collection of data. Primary data are collected by using different types of instrument, they are; questioners, observations, interviews, laboratory experiment, quasi experiment, scales etc.

Secondary data are collected from the website of the concern manufacturing. In order to collect the data from annual reports published of the manufacturing. Economic report and other published statistical data have been used, and to obtain the additional information, informal talks and procedures have been used.

### **3.5 Methods of Analysis**

For the achievement of the objectives of the study various financial and statistical tools / methods have been used. The analysis of data is done according to the pattern of available data.

#### **3.5.1 Financial Analysis**

Return on Assets

Return On equity

Total Debt to Total Assets

Debt equity ratio

Leverage

Liquidity

Assets Tangibility

Size (log of total assets)

Return on Assets

Return on Assets (ROA) is a financial ratio that indicates the profitability of a company relative to its total assets. It measures how efficiently a company is using its assets to

generate profit. ROA is calculated by dividing a company's net income by its total assets.

The formula is:

$$\text{ROA} = \frac{\text{net profit after tax}}{\text{total assets}}$$

Return On equity

Return on Equity (ROE) is a financial ratio that measures a company's profitability in relation to shareholders' equity. It indicates how efficiently a company is using the equity investments made by its shareholders to generate profits. The formula to calculate ROE is:

$$\text{ROE} = \frac{\text{Net profit after Tax}}{\text{return on equity}}$$

Total Debt to Total Assets

The Total Debt to Total Assets ratio is a financial metric that indicates the proportion of a company's assets that are financed by debt. It provides insight into the financial leverage and risk profile of a company. A higher ratio suggests that a larger portion of the company's assets is financed by debt, which can indicate higher financial risk.

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

Debt equity ratio

The Debt to Equity Ratio is a financial metric that compares the total debt of a company to its shareholders' equity. It is a measure of the company's financial leverage and indicates how much debt is used to finance the company's assets relative to the equity.

$$\text{Debt to equity Ratio} = \frac{\text{Total Debt}}{\text{total Equity}}$$

Leverage

Leverage in finance refers to the use of borrowed funds to increase the potential return on an investment. By using various financial instruments or borrowed capital, companies and investors can enhance their investment potential. However, leverage also increases the risk, as the use of debt can amplify both gains and losses.

$$\text{Leverage} = \frac{\text{total assets}}{\text{total equity}}$$

Liquidity

Liquidity refers to how quickly and easily an asset or security can be converted into cash without significantly affecting its price. It is a crucial aspect of financial health, indicating the ability of an entity to meet its short-term obligations.

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

### Assets Tangibility

Assets tangibility refers to the extent to which a company's assets are composed of tangible assets as opposed to intangible assets. Tangible assets are physical and measurable assets used in a company's operations, while intangible assets lack physical substance and include things like patents, trademarks, and goodwill.

$$\text{Assets Tangibility} = \frac{\text{total fixed assets}}{\text{total assets}}$$

Size (log of total assets)

Using the logarithm of total assets as a measure of size is a common practice in financial and economic research. It helps to normalize the distribution of company sizes, making it easier to compare companies of different scales and to manage skewed data distributions. This is particularly useful when dealing with data sets where company sizes can span several orders of magnitude.

Size= log (total assets)

## 3.5.2 Statistical Analysis

### Descriptive Analysis

Descriptive analysis is the analysis of the mean, Standard deviation, minimum and maximum of the given variables related data.

### Arithmetic Mean

The arithmetic mean or average is the sum of total values to the number of observations in the sample. It represents the entire data which lies almost between the two extremes. For this reason an average is frequently referred to as a measure of central tendency. In this study, it is used in data related of sample banks over ten fiscal years. It is calculated as;

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n}$$

Where,  $\bar{X}$  = Mean

$\sum X$  = Sum of all the variable X

n = Variable involved

### Standard Deviation ( $\sigma$ )

Standard deviation is a measure of the amount of variation or dispersion of a set of values. The standard deviation is calculated as the square root of variance by determining each data point's deviation relative to the mean. It is denoted by ( $\sigma$ ).

$$\text{Standard Deviation } (\sigma): \text{S.D} = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$$

Where,

X=variables

= mean

N= No. of Period

### **Minimum**

Minimum is the lower quarter of the given data. It's also known as the lower value of the given data which is in the respective variable of the research. We start by looking more closely at the statistics known as the minimum. This number is the data value that is less than or equal to all other values in our set of data. If we were to order all of our data in ascending order, then the minimum would be the first number in our list. Although the minimum value could be repeated in our data set, by definition this is a unique number. There cannot be two minima because one of these values must be less than the other.

### **Maximum**

Maximum is the higher quarter of the given data. It's also known as the higher value of the given data which is in the respective variable of the research. Now we turn to the maximum. This number is the data value that is greater than or equal to all other values in our set of data. If we were to order all of our data in ascending order, then the maximum would be the last number listed. The maximum is a unique number for a given set of data. This number can be repeated, but there is only one maximum for a data set. There cannot be two maxima because one of these values would be greater than the other.

### **Correlation Analysis**

It is a statistical tool to identify direction and magnitude of relation between two set of variables. It shows how two variables move together and also shows the degree of association between them. The relationship has been explained by using Pearson correlation coefficient. The value of correlation coefficient ranges from -1 to +1. If correlation coefficient is exactly -1, two variables are said to have perfect negative correlation as such that they move together exactly into opposite direction. On the other hand, if correlation coefficient is +1, the variables are said to be perfectly positively related.

### Multiple Regression Model

The regression models will be employing in this study intend to analyze the relationship i.e., dependent and independent variables. The relationship between the dependent and independent variables will be stated in the following form:

Model I

$$ROE = \beta_0 + \beta_1 \times TDTA + \beta_2 \times DER + \beta_3 \times L + \beta_4 \times Li + \beta_5 \times AT + \beta_5 \times S + e$$

Model II

$$ROA = \beta_0 + \beta_1 \times TDTA + \beta_2 \times DER + \beta_3 \times L + \beta_4 \times Li + \beta_5 \times AT + \beta_5 \times S + e$$

Where,

ROA= Return on Assets

ROE = Return On equity

TDTA = Total Debt to Total Assets

DER= Debt equity ratio

L= Leverage

Li= Liquidity

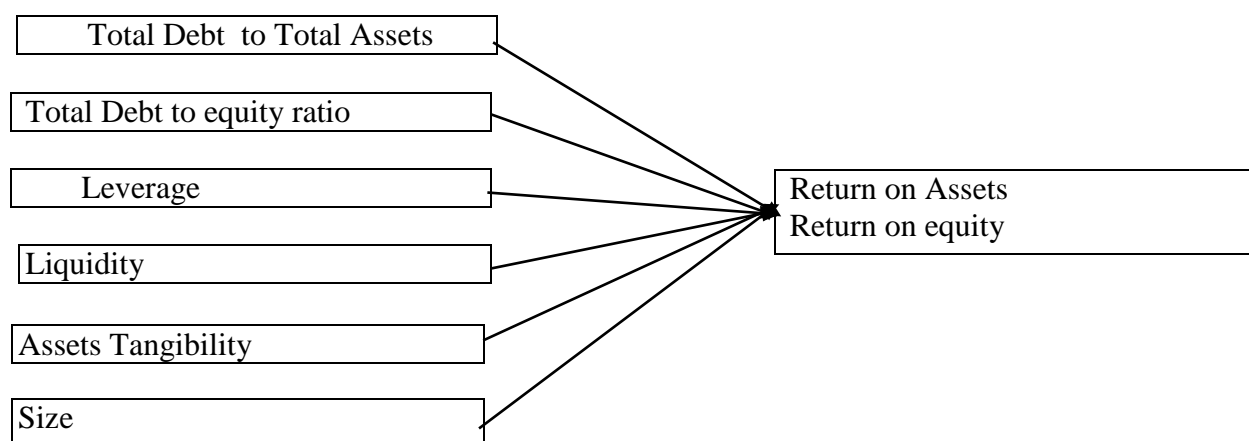
AT= Assets Tangibility

S= Size (log of total assets)

### 3.6 Research Framework and Definition of Variables

Independent Variables

Dependent Variable



**Figure 1**

*Research Framework*

## **Definitions of Variables**

### **Dependent Variables**

#### Return on Assets

Return on Assets (ROA) is a financial ratio that indicates the profitability of a company relative to its total assets. It measures how efficiently a company is using its assets to generate profit. ROA is calculated by dividing a company's net income by its total assets.

#### Return on equity

Return on Equity (ROE) is a financial ratio that measures a company's profitability in relation to shareholders' equity. It indicates how efficiently a company is using the equity investments made by its shareholders to generate profits.

### **Independent Variables**

#### Total Debt to Total Assets

The Total Debt to Total Assets ratio is a financial metric that indicates the proportion of a company's assets that are financed by debt. It provides insight into the financial leverage and risk profile of a company. A higher ratio suggests that a larger portion of the company's assets is financed by debt, which can indicate higher financial risk.

#### Debt equity ratio

The Debt to Equity Ratio is a financial metric that compares the total debt of a company to its shareholders' equity. It is a measure of the company's financial leverage and indicates how much debt is used to finance the company's assets relative to the equity.

#### Leverage

Leverage in finance refers to the use of borrowed funds to increase the potential return on an investment. By using various financial instruments or borrowed capital, companies and investors can enhance their investment potential. However, leverage also increases the risk, as the use of debt can amplify both gains and losses.

#### Liquidity

Liquidity refers to how quickly and easily an asset or security can be converted into cash without significantly affecting its price. It is a crucial aspect of financial health, indicating the ability of an entity to meet its short-term obligations.

#### Assets Tangibility

Assets tangibility refers to the extent to which a company's assets are composed of tangible assets as opposed to intangible assets. Tangible assets are physical and measurable assets

used in a company's operations, while intangible assets lack physical substance and include things like patents, trademarks, and goodwill.

#### Size (log of total assets)

Using the logarithm of total assets as a measure of size is a common practice in financial and economic research. It helps to normalize the distribution of company sizes, making it easier to compare companies of different scales and to manage skewed data distributions. This is particularly useful when dealing with data sets where company sizes can span several orders of magnitude.

## CHAPTER-IV

### RESULT AND DISCUSSION

Result and discussion of data is the very importance part of the desertion. Its shows all the numerical data into some expressed form of analysis. It is the process of organizing the data by tabulating and then placing that data in presentable form by using various tables, figures and sources.

#### 4.1 Result

##### 4.1.1 Descriptive Statistical Analysis

This involves evaluating the company's strengths and weaknesses, where strengths provide advantages to the organization while weaknesses pose challenges. Identifying both strengths and weaknesses provides valuable insights for future planning and improvement within the company. Various financial ratios are scrutinized to assess the company's financial position, with their mean, minimum, maximum, and standard deviation also calculated for analysis.

**Table 4**

*Descriptive Statistics*

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Assets	40	-4.38	45.08	15.68	12.27
Return On equity	40	-11.61	54.74	27.76	16.21
Total Debt to Total Assets	40	8.56	100.00	51.8	21.49
Debt equity ratio	40	9.36	455.98	130.9	104.12
Leverage	40	109.39	557.48	224.79	104.2
Liquidity	40	37.37	1086.17	191.68	208.6
Assets Tangibility	40	16.09	79.10	46.52	20.67
Valid N (listwise)	40				

(Source: *Appendix -1&2*)

Table 4 present the Descriptive Statistics of different four manufacturing companies namely they are Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan Distillery and Unilever Company. Total of 40 observation with four samples of each 10 years of data are presented. The minimum, maximum, mean and standard deviation are calculated.

The minimum, maximum, mean and standard deviation of Return on Assets are -4.38, 45.08, 15.68 and 12.27 respective. The minimum, maximum, mean and standard deviation of Return On equity are -11.61, 54.74, 27.76 and 16.21 respective. The minimum, maximum, mean and standard deviation of Total Debt to Total Assets are 8.56, 100.00, 51.8 and 21.49 respective. The minimum, maximum, mean and standard deviation of Total Debt to Total Assets are 9.36, 455.98, 130.9 and 104.12 respective. The minimum, maximum, mean and standard deviation of Leverage are 109.39, 557.48, 224.79 and 104.2 respective. The minimum, maximum, mean and standard deviation of Liquidity are 37.37, 1086.17, 191.68 and 208.6 respective. The minimum, maximum, mean and standard deviation of Assets Tangibility are 16.09, 79.10, 46.52 and 20.67 respective.

The different between minimum and maximum is higher, maximum and mean also higher, minimum and mean also higher. Other hand the standard deviation is higher. These means the data flow of all the variables; Return on Assets, Return On equity, Total Debt to Total Assets, Debt equity ratio, Leverage, Liquidity, Assets Tangibility and Size are in the nature of fluctuating.

#### **4.1.3 Correlation Analysis**

Correlation analysis is a statistical approach used to assess the strength and direction of the association between two numerical variables. This method computes a correlation coefficient, such as Pearson's  $r$ , which varies between -1 and +1. A coefficient nearing +1 indicates a robust positive correlation, indicating that as one variable rises, the other tends to rise as well. Conversely, a coefficient nearing -1 signifies a strong negative correlation, where one variable increases while the other decreases. A coefficient near 0 suggests a lack of a linear relationship between the variables.

Table 5 present the correlation analysis of different four manufacturing companies namely they are Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan Distillery and Unilever Company. Total of 40 observation with four samples of each 10 years of data are presented. Here relationship between independent variable Total Debt to Total Assets, Debt equity ratio, Leverage, Liquidity, Assets Tangibility and Size and dependent variable Return on Assets and Return on equity are calculated.

**Table 5***Correlations Analysis of Variables*

		ROA	ROE	TDTA	DER	L	Li	AT	S
ROA	Pearson								
	Correlation	1							
ROE	Pearson	.901**	1						
	Correlation								
TDTA	Pearson	-.504**	-.221	1					
	Correlation								
DER	Pearson	-.554**	-.237	.787**	1				
	Correlation								
L	Pearson	-.601**	-.297	.664**	.977**	1			
	Correlation								
Li	Pearson	.499**	.233	-.674**	-.529**	-.521**	1		
	Correlation								
AT	Pearson	-.646**	-.433**	.487**	.658**	.709**	-.600**	1	
	Correlation								
S	Pearson	-.109	-.111	.071	.128	.145	.032	-.038	1
	Correlation								

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

(Source: *Appendix -1&2*)

The relationship between total debt to total assets and return on assets is negative and significant so the hypothesis also true. The negative relationship shows by the correlation value negative 0.504 and which is significant because of the significant value is 0.00 which is less 0.01 called 1% level of significant so the hypothesis is true.

The relationship between debt equity ratio and return on assets is negative and significant so the hypothesis also true. The negative relationship shows by the correlation value negative 0.554 and which is significant because of the significant value is 0.00 which is less 0.01 called 1% level of significant so the hypothesis is true.

The relationship between leverage and return on assets is negative and significant so the hypothesis also true. The negative relationship shows by the correlation value negative 0.601 and which is significant because of the significant value is 0.000 which is less 0.01 called 1% level of significant so the hypothesis is true.

The relationship between liquidity and return on assets is positive and significant so the hypothesis also true. The negative relationship shows by the correlation value positive 0.499 and which is significant because of the significant value is 0.001 which is less 0.01 called 1% level of significant so the hypothesis is true.

The relationship between assets tangibility and return on assets is negative and significant so the hypothesis also true. The negative relationship shows by the correlation value negative 0.646 and which is significant because of the significant value is 0.00 which is less 0.01 called 1% level of significant so the hypothesis is true.

The relationship between size and return on assets is negative and it is not significant so the hypothesis also not true. The negative relationship shows by the correlation value negative 0.109 and which is not significant because of the significant value is 0.503 which is more than 0.05 so the hypothesis is not true.

The relationship between total debt to total assets and return on equity is negative and not significant so the hypothesis also not true. The negative relationship shows by the correlation value negative 0.221 and which is not significant because of the significant value is 0.171 which is more 0.05 so the hypothesis is true.

The relationship between debt equity ratio and return on equity is negative and it is not significant so the hypothesis also not true. The negative relationship shows by the correlation value negative 0.237 and which is not significant because of the significant value is 0.237 which is more 0.05 so the hypothesis is not true.

The relationship between leverage and return on equity is negative and not significant so the hypothesis is also not true. The negative relationship shows by the correlation value negative 0.297 and which is not significant because of the significant value is 0.063 which is more 0.05 so the hypothesis is not true.

The relationship between liquidity and return on equity is positive and not significant so the hypothesis also not true. The positive relationship shows by the correlation value positive 0.233 and which is not significant because of the significant value is 0.149 which is more than 0.05 so the hypothesis is not true.

The relationship between assets tangibility and return on equity is negative and significant so the hypothesis also true. The negative relationship shows by the correlation value negative 0.433 and which is significant because of the significant value is 0.005 which is less 0.01 called 1% level of significant so the hypothesis is true.

The relationship between size and return on equity is negative and it is not significant so the hypothesis also not true. The negative relationship shows by the correlation value negative 0.111 and which is not significant because of the significant value is 0.494 which is more than 0.05 so the hypothesis is not true.

#### 4.1.4 Multiple Regression Analysis

Multiple regression analysis is a robust statistical method employed to explore the association between a single dependent variable and two or more independent variables. This technique extends simple linear regression by incorporating multiple predictors, enabling researchers to evaluate both the combined and individual influences of each predictor on the outcome. The outcomes of multiple regression are typically presented through coefficients assigned to each independent variable, illustrating the direction and magnitude of their relationships with the dependent variable. The analysis includes model summaries, ANOVA tables, and coefficient estimates to elucidate these relationships comprehensively.

#### Multiple Regression Based on Return on Assets

The regression analysis based on dependent variable is return on assets and independent variables are Total Debt to Total Assets, Debt equity ratio, Leverage, Liquidity, Assets Tangibility and Size is calculated here. In the multiple regression the model summary, ANOVA and Coefficient of variation are calculated.

**Table 6**

*Model summary of ROA Based Model*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.913 <sup>a</sup>	.834	.804	5.43539

a. Predictors: (Constant), S, Li, L, AT, TDTA, DER

(Source: *Appendix -1&2*)

Table 6 present the model summary of the four manufacturing companies in ten years of each. The sample companies are Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan Distillery and Unilever Company. Total number of observation they are 40 each manufacturing has 10 observations. Here adjusted R square is 0.804 which represent the total of independent variable; Size , Liquidity, Leverage , Assets Tangibility, Total Debt to Total Assets, Debt equity ratio impacted to the dependent variable return on assets by 80.4

percent and the remaining 19.6 percent impacted by other variables which are not included in this research.

**Table 7**

*ANOVA of the Study*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4904.745	6	817.458	27.670	.000 <sup>b</sup>
	Residual	974.935	33	29.543		
	Total	5879.680	39			

a. Dependent Variable: ROA

b. Predictors: (Constant), S, Li, L, AT, TDTA, DER

(Source: *Appendix -1&2*)

Table 7 present the model summary of the four manufacturing companies in ten years of each. The sample companies are Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan Distillery and Unilever Company. Total number of observation they are 40 each manufacturing has 10 observations. Here sig value is 0.000 which represent the impact is significant. The regression is strong.

**Table 8**

*Coefficient of the Study*

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	177.248	18.054		9.817	.000
	TDTA	-1.731	.209	-3.030	-8.296	.000
	DER	1.109	.133	9.406	8.329	.000
	L	-.968	.115	-8.211	-8.421	.000
	Li	-.053	.009	-.895	-5.667	.000
	AT	-.041	.072	-.069	-.573	.570
	S	3.579	2.276	.122	1.573	.125

a. Dependent Variable: ROA

(Source: *Appendix -1&2*)

Table 8 present the coefficient of the five four manufacturing companies in ten years of each. The sample companies are Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan Distillery and Unilever Company. Total number of observation they are 40 each

manufacturing has 10 observations. Here the impact of each independent variables impact to the dependent variable is shown.

Total debt to total assets ratio impacted to the return on assets negative and which is significant too so the hypothesis also true. The negative impact shows by the beta value negative 1.731 and which is high accurate because the standard error is low i.e. 0.209. The impact with significant hypothesis is true because the significant value is 0.000 less than 0.05.

Total Debt equity ratio impacted to the return on assets positive and which is significant too so the hypothesis also true. The positive impact shows by the beta value positive 1.109 and which is high accurate because the standard error is lower i.e. 0.133. The impact with significant hypothesis is true because the significant value is 0.000 less than 0.05.

Total Leverage impacted to the return on assets negative and which is significant too so the hypothesis also true. The negative impact shows by the beta value negative 0.968 and which is high accurate because the standard error is lower i.e. 0.155. The impact with significant hypothesis is true because the significant value is 0.000 less than 0.05.

Total Liquidity impacted to the return on assets negative and which is significant too so the hypothesis also true. The negative impact shows by the beta value negative 0.053 and which is high accurate because the standard error is low i.e. .009. The impact with significant hypothesis is true because the significant value is 0.000 less than 0.05.

Total Assets Tangibility impacted to the return on assets negative and which is not significant so the hypothesis also not true. The negative impact shows by the beta value negative 0.041 and which is high accurate because the standard error is low i.e. 0.072. The impact is not significant so the hypothesis is not true because the significant value is 0.57 more than 0.05.

Total Size impacted to the return on assets positive and which is not significant so the hypothesis also not true. The positive impact shows by the beta value positive 3.579 and which is less accurate because the standard error is higher i.e. 2.276. The impact with significant hypothesis is not true because the significant value is 0.125 more than 0.05.

### **Multiple Regression Based on Return on Equity**

The regression analysis based on dependent variable is return on equity and independent variables are total debt to total assets, debt equity ratio, leverage, liquidity, assets tangibility

and size is calculated here. In the multiple regression the model summary, ANOVA and coefficient of variation are calculated.

**Table 9**

*Model summary of ROE Based Model*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 <sup>a</sup>	.648	.584	10.46

a. Predictors: (Constant), S, Li, L, AT, TDTA, DER

(Source: *Appendix -1&2*)

Table 8 present the model summary of the four manufacturing companies in ten years of each. The sample companies are Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan Distillery and Unilever Company. Total number of observation they are 40 each manufacturing has 10 observations. Here adjusted R square is 0.584 which represent the total of independent variable; Size , Liquidity, Leverage , Assets Tangibility, Total Debt to Total Assets, Debt equity ratio impacted to the dependent variable return on equity by 58.4 percent and the remaining 41.6 percent impacted by other variables which are not included in this research.

**Table 9**

*ANOVA of the Study*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6640.199	6	1106.700	10.114	.000 <sup>b</sup>
	Residual	3611.112	33	109.428		
	Total	10251.310	39			

a. Dependent Variable: ROE

b. Predictors: (Constant), S, Li, L, AT, TDTA, DER

(Source: *Appendix -1&2*)

Table 9 present the model summary of the four manufacturing companies in ten years of each. The sample companies are Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan Distillery and Unilever Company. Total number of observation they are 40 each manufacturing has 10 observations. Here sig value is 0.000 which represent the impact is significant. The regression is strong.

Table 10 present the coefficient of the five four manufacturing companies in ten years of each. The sample companies are Bottlers Nepal (balaju), Bottlers Nepal (Terai), Himalayan

Distillery and Unilever Company. Total number of observation they are 40 each manufacturing has 10 observations. Here the impact of each independent variables impact to the dependent variable is shown.

**Table 10**

*Coefficient of the Study*

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	261.920	34.747		7.538	.000
	TDTA	-2.504	.402	-3.320	-6.236	.000
	DER	1.643	.256	10.552	6.410	.000
	L	-1.390	.221	-8.935	-6.287	.000
	Li	-.090	.018	-1.153	-5.009	.000
	AT	-.087	.138	-.112	-.634	.531
	S	4.100	4.380	.106	.936	.356

a. Dependent Variable: ROE

(Source: *Appendix -1&2*)

Total debt to total equity ratio impacted to the return on equity negative and which is significant too so the hypothesis also true. The negative impact shows by the beta value negative 2.504 and which is more accurate because the standard error is low i.e. 0.402. The impact with significant hypothesis is true because the significant value is 0.000 less than 0.05.

Total Debt equity ratio impacted to the return on equity positive and which is significant too so the hypothesis also true. The positive impact shows by the beta value positive 1.643 and which is high accurate because the standard error is low i.e. 0.256. The impact with significant hypothesis is true because the significant value is 0.000 less than 0.05.

Total Leverage impacted to the return on equity negative and which is significant too so the hypothesis also true. The negative impact shows by the beta value negative 1.39 and which is high accurate because the standard error is low i.e. 0.221. The impact with significant hypothesis is true because the significant value is 0.000 less than 0.05.

Total Liquidity impacted to the return on equity negative and which is significant too so the hypothesis also true. The negative impact shows by the beta value negative 0.09 and

which is high accurate because the standard error is low i.e. 0.018. The impact with significant hypothesis is true because the significant value is 0.000 less than 0.05.

Total assets tangibility impacted to the return on equity negative and which is not significant so the hypothesis also not true. The negative impact shows by the beta value negative 0.087 and which is high accurate because the standard error is low i.e. 0.138. The impact with not significant hypothesis is not true because the significant value is 0.531 more than 0.05.

Total Size impacted to the return on equity positive and which is not significant so the hypothesis also not true. The positive impact shows by the beta value positive 4.1 and which is less accurate because the standard error is higher i.e. 4.38. The impact with significant hypothesis is not true because the significant value is 0.356 more than 0.05.

## **4.2 Discussion**

Form the descriptive statistics the data flow of all the variables; return on assets, return on equity, total debt to total assets, debt equity ratio, leverage, liquidity, assets tangibility and size are in the nature of fluctuating. The correlation analysis the relationship of total debt to total assets, debt equity ratio, and leverage, liquidity and assets tangibility to the return on assets is significant. The relationship of size and return on asset is not significant. The relationship of assets tangibility is significant to the return on equity. The relationship of total debt to total assets, debt equity ratio, leverage, liquidity and size is not significant to the return on equity.

The research analysis the regression for achievement of the objectives related to the impact of the capital structure on profitability. The result shows the impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on assets is significant. The impact of assets tangibility and size are not significant to the return on assets. The impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on equity is significant. The impact of assets tangibility and size are not significant to the return on equity.

The first objective of research is to assess the current status of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility, size, return on assets and return on equity of Nepalese manufacturing companies. It is found that the different between minimum and maximum is higher, maximum and mean also higher, minimum and mean also higher. The result is consistent with the result of Jaishi, (2020). Other hand the standard

deviation is higher. The result is consistent with the result of Pradhan and Kafle, (2021). These means the data flow of all the variables; return on assets, return on equity, total debt to total assets, debt equity ratio, leverage, liquidity, assets tangibility and size are in the nature of fluctuating. The result is consistent with the result of Chalise and Adhikari, (2022).

The second objective of research is to examine the relationship of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size to the return on assets and return on equity of Nepalese manufacturing companies. It is found that the relationship between total debt to total assets and return on assets is negative and significant so the hypothesis also true. The result is consistent with the result of Khadka and Pradhan, (2023). The relationship between debt equity ratio and return on assets is negative and significant so the hypothesis also true. The result is consistent with the result of Ngoc et al., (2021). The relationship between leverage and return on assets is negative and significant so the hypothesis also true. The result is consistent with the result of Ayaz et al., (2021). The relationship between liquidity and return on assets is positive and significant so the hypothesis also true. The result is consistent with the result of Ayalew, (2021). The relationship between Assets Tangibility and return on assets is negative and significant so the hypothesis also true. The result is consistent with the result of Ngoc et al., (2021). The relationship between size and return on assets is negative and it is not significant so the hypothesis also not true. The result is consistent with the result of Olusola et al., (2022). The relationship between Total debt to total assets and return on equity is negative and not significant so the hypothesis also not true. The result is consistent with the result of Kim et al., (2023). The relationship between debt equity ratio and return on equity is negative and it is not significant so the hypothesis also not true. The result is consistent with the result of Anozie et al., (2023). The relationship between leverage and return on equity is negative and not significant so the hypothesis is also not true. The result is consistent with the result of Boshnak, (2023). The relationship between liquidity and return on equity is positive and not significant so the hypothesis also not true. The result is consistent with the result of Nguyen et al., (2023). The relationship between Assets Tangibility and return on equity is negative and significant so the hypothesis also true. The result is consistent with the result of Demiraj et al., (2023). The relationship between size and return on equity is negative and it is not significant so the hypothesis also not true. The result is consistent with the result of Kim et al., (2023).

The third objective of research is to analyze the total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size impact to the return on assets and return on equity of Nepalese manufacturing companies. It is found that the Total debt to total assets ratio impacted to the return on assets negative and which is significant too so the hypothesis also true. The result is consistent with the result of Habibniya et al., (2022). Total Debt equity ratio impacted to the return on assets positive and which is significant too so the hypothesis also true. The result is consistent with the result of Haekal and Tannady, (2023). Total Leverage impacted to the return on assets negative and which is significant too so the hypothesis also true. The result is consistent with the result of Handini, (2024). Total Liquidity impacted to the return on assets negative and which is significant too so the hypothesis also true. The result is consistent with the result of Nuraeni, (2024). Total Assets Tangibility impacted to the return on assets negative and which is not significant so the hypothesis also not true. The result is consistent with the result of Ombuh et al., (2024). Total Size impacted to the return on assets positive and which is not significant so the hypothesis also not true. The result is consistent with the result of Ngoc et al., (2021). Total debt to total equity ratio impacted to the return on equity negative and which is significant too so the hypothesis also true. The result is consistent with the result of Jaishi, (2020). Total debt equity ratio impacted to the return on equity positive and which is significant too so the hypothesis also true. The result is consistent with the result of Ayaz et al., (2021). Total Leverage impacted to the return on equity negative and which is significant too so the hypothesis also true. The result is consistent with the result of Ayalew, (2021). Total Liquidity impacted to the return on equity negative and which is significant too so the hypothesis also true. The result is consistent with the result of Chalise and Adhikari, (2022). Total Equity Tangibility impacted to the return on equity negative and which is not significant so the hypothesis also not true. The result is consistent with the result of Habibniya et al., (2022). Total Size impacted to the return on equity positive and which is not significant so the hypothesis also not true. The result is consistent with the result of Khadka and Pradhan, (2023).

## CHAPTER-V

### SUMMARY AND CONCLUSION

This chapter comprises three key components: summary, conclusion, and inference. The summary provides a comprehensive overview of the entire study process, encompassing the entirety of the research efforts from initiation to completion. Both the summary and conclusion of the thesis are incorporated in this section. Additionally, the implications of the results obtained from the thesis work are discussed.

#### 5.1 Summary

In Nepal, where manufacturing plays a pivotal role in the economy, understanding how different financing options affect profitability is essential for sustainable growth and competitiveness. Nepalese manufacturing firms often face unique challenges in accessing financing, with limited options for debt and equity capital compared to more developed markets. Consequently, their capital structure decisions significantly influence profitability. Optimal capital structure choices can lead to enhanced profitability by leveraging debt to benefit from tax shields and lower cost of capital, while excessive debt may increase financial risk and interest expenses, ultimately affecting profitability. Striking the right balance between debt and equity financing is crucial for Nepalese manufacturing companies to maximize profitability, maintain financial stability, and sustain long-term growth in a dynamic economic environment. On the basis of the given background the study is conducted on the impact of capital structure on the profitability of Nepalese manufacturing companies.

The problem of the research are; What are the current status of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility, size, return on assets and return on equity of Nepalese manufacturing companies? Whether there are any relationship of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size to the return on assets and return on equity of Nepalese manufacturing companies? Do the total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size impact to the return on assets and return on equity of Nepalese manufacturing companies? for solving these problem the objectives are set and they are; to assess the current status of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility, size, return on assets and return on equity of Nepalese

manufacturing companies, to examine the relationship of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size to the return on assets and return on equity of Nepalese manufacturing companies and to analyze the total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size impact to the return on assets and return on equity of Nepalese manufacturing companies. Descriptive and casual comparative research design has been employed. The descriptive statistics, correlation and regression analysis are conducted. The achievement of the objectives. The data are collected from annual report of the manufacturing companies. Sample are selected four sample manufacturing and secondary data of each 10 years from 2014-2023. The finding of the study is that the different between minimum and maximum is higher, maximum and mean also higher, minimum and mean also higher. Other hand the standard deviation is higher. These means the data flow of all the variables; return on assets, return on equity, total debt to total assets, debt equity ratio, leverage, liquidity, assets tangibility and size are in the nature of fluctuating. The relationship of total debt to total assets, debt equity ratio, and leverage, liquidity and assets tangibility to the return on assets is significant. The relationship of size and return on asset is not significant. The relationship of assets tangibility is significant to the return on equity. The relationship of total debt to total assets, debt equity ratio, leverage, liquidity and size is not significant to the return on equity. The impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on assets is significant. The impact of assets tangibility and size are not significant to the return on assets. The impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on equity is significant. The impact of assets tangibility and size are not significant to the return on equity.

## **5.2 Conclusion**

The first objective of research is to assess the current status of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility, size, return on assets and return on equity of Nepalese manufacturing companies. It is found that the different between minimum and maximum is higher, maximum and mean also higher, minimum and mean also higher. Other hand the standard deviation is higher. These means the data flow of all the variables; return on assets, return on equity, total debt to total assets, debt equity ratio, leverage, liquidity, assets tangibility and size are in the nature of fluctuating. In conclusion the return on assets, return on equity, and total debt to total assets, debt equity ratio, leverage, liquidity, assets tangibility and size are in the nature of fluctuating. The meaning

of fluctuating nature of variables that the companies different ratio are not maintain consistence, they have a chance to problem of debt and equity finance.

The second objective of research is to examine the relationship of total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size to the return on assets and return on equity of Nepalese manufacturing companies. It is found that the relationship of total debt to total assets, debt equity ratio, and leverage, liquidity and assets tangibility to the return on assets is significant. The relationship of size and return on asset is not significant. The relationship of assets tangibility is significant to the return on equity. The relationship of total debt to total assets, debt equity ratio, leverage, liquidity and size is not significant to the return on equity. In conclusion the relationship of total debt to total assets, debt equity ratio, and leverage, liquidity and assets tangibility to the return on assets is significant and total debt to total assets and assets tangibility is significant to the return on equity. The meaning of these finding are; that the increase the profitability to maintain the total debt to total assets, debt equity ratio, leverage, liquidity and assets tangibility to the return on assets is significant and total debt to total assets and assets tangibility ration in well form.

The third objective of research is to analyze the total debt to total assets, total debt to equity ratio, leverage, liquidity, assets tangibility and size impact to the return on assets and return on equity of Nepalese manufacturing companies. It is found that the impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on assets is significant. The impact of assets tangibility and size are not significant to the return on assets. The impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on equity is significant. The impact of assets tangibility and size are not significant to the return on equity. In conclusion the impact of total debt to total assets, debt equity ratio, leverage and liquidity to the return on assets and return on equity is significant. The meaning of these finding are; that the increase the profitability to maintain the different ratio included in independent variables in well form.

### **5.3 Implications**

Capital structure components such as preferred stock, secured debt, and common stock equity were used as independent variables, and they were manipulated to test their impacts on the dependent variables. The dependent variables were testable, market share, survival, liquidity, deposits, and working capital ratio, which could be examined statistically. The implication of the research are following.

- i. Identifying the optimal mix of debt and equity can help Nepalese manufacturing companies enhance profitability.
- ii. Investors can use the findings to make informed decisions regarding which companies to invest in. Companies with an optimal capital structure that enhances profitability might be more attractive to investors.
- iii. Policymakers might use the research findings to develop regulations that encourage optimal capital structures in the manufacturing sector. This could include incentives for maintaining a healthy balance of debt and equity.
- iv. The research can provide benchmarks for performance evaluation, helping managers to assess the effectiveness of their capital structure strategies and make necessary adjustments.
- v. The findings can highlight areas for further research, such as the impact of different types of debt, industry-specific factors, or comparative studies with other sectors or countries.

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## APPENDICES

### Unilever Company

Date (ULC)	NPAT	TA	TE	TD	CA	CL	FA
2023	1834	6495	4360	2134	4797	1922	1698
2022	1541	5804	3652	2152	4190	1952	1614
2021	860	4753	2605	2148	3672	2005	1081
2020	358	3723	1973	1750	2513	1736	1210
2019	1065	3857	2324	3857	2871	1532	986
2018	999	3162	1903	3162	2505	1258	657
2017	965	3321	2074	1247	2740	1234	581
2016	1121	3046	2048	997	2556	986	490
2015	785	3046	2048	978	2546	876	500
2014	856	2945	1998	915	2356	956	589

### Bottler (Terai)

Date (Terai)	NPAT	TA	TE	TD	CA	CL	FA
2023	638	9240	3908	5332	3520	4568	5720
2022	625	8328	3316	5011	2634	3673	5694
2021	423	8038	2691	5346	2197	2600	5841
2020	5	8323	2266	6057	2104	3888	6219
2019	453	7746	2340	5405	1619	3979	6127
2018	741	4249	1987	2259	1299	1888	2950
2017	482	4203	1266	2934	1352	2587	2851
2016	276	3749	860	2888	1133	2244	2616
2015	186	3426	623	2799	762	2039	2664
2014	175	3356	602	2745	776	2001	2580

### Bottler (Balaju)

Date (Balaju)	NPAT	TA	TE	TD	CA	CL	FA
2023	405	5640	2389	3251	4151	2722	1489
2022	197	4005	1980	2024	2396	1447	1609
2021	61	3771	1757	2012	2028	1429	1743
2020	-16	3628	1718	1906	1823	1377	1805
2019	357	3413	1779	1633	1671	1187	1742
2018	307	2772	1517	1252	1207	889	1565
2017	244	2751	1213	1537	1329	1184	1422
2016	181	2142	1012	1127	846	826	1296
2015	-99	2262	853	1406	1113	1153	1149
2014	170	2163	796	1569	1056	1356	1107

#### Himalayan Distillery (HDL)

Date (HDL)	NPAT	TA	TE	TD	CA	CL	FA
2023	660	3669	3354	314	3063	282	605
2022	1056	3192	2844	347	2561	306	631
2021	1041	2309	2004	294	1702	269	607
2020	466	1995	1252	742	1397	711	598
2019	537	1403	988	400	745	373	658
2018	294	1200	796	404	552	367	648
2017	48	1017	580	437	360	177	657
2016	248	959	612	345	356	196	603
2015	8	102	39	72	49	64	53
2014	13	80	39	44	32	44	48

#### Appendix 2: Calculations of SPSS and Excel

Bottler (Balaju)	Date	ROA	ROE	TDTA	DER	L	Li	AT	S
	2023	7.180851	16.9527	57.6418 4	136.082	236.082	152.498 2	26.4007 1	3.75127 9
	2022	4.918851	9.94949 5	50.5368 3	102.222 2	202.272 7	165.584	40.1747 8	3.60260 3
	2021	1.617608	3.47182 7	53.3545 5	114.513 4	214.627 2	141.917 4	46.2211 6	3.57645 7
	2020	-0.44101	-0.93132	52.5358 3	110.943	211.175 8	132.389 3	49.7519 3	3.55966 7
	2019	10.46001	20.0674 5	47.8464 7	91.7931 4	191.849 4	140.775 1	51.0401 4	3.53313 6
	2018	11.07504	20.2373 1	45.1659 5	82.5313 1	182.729 1	135.770 5	56.4574 3	3.44279 3
	2017	8.869502	20.1154 2	55.8705 9	126.710 6	226.793 1	112.246 6	51.6902 9	3.43949 1
	2016	8.450047	17.8853 8	52.6143 8	111.363 6	211.660 1	102.421 3	60.5042	3.33081 9
	2015	-4.37666	-11.6061	62.1573 8	164.83	265.181 7	96.5307 9	50.7957 6	3.35449 3
	2014	7.859454	21.3567 8	72.5381 4	197.110 6	271.733 7	77.8761 1	51.1789 2	3.33505 7
Bottler (Terai)	2023	6.904762	16.3254 9	57.7056 3	136.438 1	236.438 1	77.0577 9	61.9047 6	3.96567 2
	2022	7.504803	18.8480 1	60.1705 1	151.115 8	251.146	71.7125	68.3717 6	3.92054 1
	2021	5.262503	15.7190 6	66.5090 8	198.662 2	298.699 4	84.5	72.6673 3	3.90514 8
	2020	0.060074	0.22065 3	72.7742 4	267.299 2	367.299 2	54.1152 3	74.7206 5	3.92028
	2019	5.84818	19.3589 7	69.7779 5	230.982 9	331.025 6	40.6886 2	79.0988 9	3.88907 7
	2018	17.4394	37.2924	53.1654 5	113.689	213.84	68.8029 7	69.4281	3.62828 7
	2017	11.468	38.0726 7	69.8072 8	231.753 6	331.990 5	52.2613 1	67.8325	3.62355 9
	2016	7.361963	32.0930 2	77.0338 8	335.814	435.930 2	50.4902	69.7786 1	3.57391 5
	2015	5.429072	29.8555 4	81.6987 7	449.277 7	549.919 7	37.3712 6	77.7583 2	3.53478 7
	2014	5.214541	29.0697 7	81.7938	455.980 1	557.475 1	38.7806 1	76.8772 3	3.52582 2
Himalayan	2023	17.98855	19.678	8.55819	9.36195 6	109.391 8	1086.17	16.4895 1	3.56454 8
Distillery (HDL)	2022	33.08271	37.1308	10.8709 3	12.2011 3	112.236 3	836.928 1	19.7681 7	3.50406 3

	2021	45.08445	51.9461 1	12.7327 8	14.6706 6	115.219 6	632.713 8	26.2884 4	3.36342 4
	2020	23.3584	37.2204 5	37.1929 8	59.2651 8	159.345	196.483 8	29.9749 4	3.29994 3
	2019	38.27512	54.3522 3	28.5103 3	40.4858 3	142.004	199.731 9	46.8995	3.14705 8
	2018	24.5	36.9346 7	33.6666 7	50.7537 7	150.753 8	150.408 7	54	3.07918 1
	2017	4.719764	8.27586 2	42.9695 2	75.3448 3	175.344 8	203.389 8	64.6017 7	3.00732 1
	2016	25.86027	40.5228 8	35.9749 7	56.3725 5	156.699 3	181.632 7	62.878	2.98181 9
	2015	7.843137	20.5128 2	70.5882 4	184.615 4	261.538 5	76.5625	51.9607 8	2.0086
	2014	16.25	33.3333 3	55	112.820 5	205.128 2	72.7272 7	60	1.90309
Unilever Compan y	2023	28.23711	42.0642 2	32.8560 4	48.9449 5	148.967 9	249.583 8	26.1431 9	3.81257 9
	2022	26.55065	42.1960 6	37.0778 8	58.9266 2	158.926 6	214.651 6	27.8084 1	3.76372 7
	2021	18.09384	33.0134 4	45.1925 1	82.4568 1	182.456 8	183.142 1	22.7435 3	3.67696 8
	2020	9.615901	18.1449 6	47.0051	88.6974 2	188.697 4	144.758 1	32.5006 7	3.57089 3
	2019	27.61213	45.8261 6	100	165.963 9	165.963 9	187.402 1	25.5639 1	3.58625
	2018	31.59393	52.4960 6	100	166.158 7	166.158 7	199.125 6	20.7779 9	3.49996 2
	2017	29.05751	46.5284 5	37.5489 3	60.1253 6	160.125 4	222.042 1	17.4947 3	3.52126 9
	2016	36.80236	54.7363 3	32.7314 5	48.6816 4	148.730 5	259.229 2	16.0866 7	3.48373
	2015	25.7715	38.3300 8	32.1076 8	47.7539 1	148.730 5	290.639 3	16.4149 7	3.48373
	2014	29.06621	42.8428 4	31.0696 1	45.7958	147.397 4	246.443 5	20	3.46908 5

#### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Assets	40	-4.38	45.08	15.6868	12.27848
Return On equity	40	-11.61	54.74	27.7610	16.21278
Total Debt to Total Assets	40	8.56	100.00	51.8088	21.49196
Debt equity ratio	40	9.36	455.98	130.9627	104.12582
Leverage	40	109.39	557.48	224.7921	104.20709
Liquidity	40	37.37	1086.17	191.6889	208.62877

Assets Tangibility	40	16.09	79.10	46.5262	20.67992
Valid N (listwise)	40				

### Correlations

		ROA	ROE	TDTA	DER	L	Li	AT	S
ROA	Pearson Correlation	1	.901**	-.504**	-.554**	-.601**	.499**	-.646**	-.109
	Sig. (2-tailed)		.000	.001	.000	.000	.001	.000	.503
	N	40	40	40	40	40	40	40	40
ROE	Pearson Correlation	.901**	1	-.221	-.237	-.297	.233	-.433**	-.111
	Sig. (2-tailed)	.000		.171	.140	.063	.149	.005	.494
	N	40	40	40	40	40	40	40	40
TDTA	Pearson Correlation	-.504**	-.221	1	.787**	.664**	-.674**	.487**	.071
	Sig. (2-tailed)	.001	.171		.000	.000	.000	.001	.664
	N	40	40	40	40	40	40	40	40
DER	Pearson Correlation	-.554**	-.237	.787**	1	.977**	-.529**	.658**	.128
	Sig. (2-tailed)	.000	.140	.000		.000	.000	.000	.432
	N	40	40	40	40	40	40	40	40
L	Pearson Correlation	-.601**	-.297	.664**	.977**	1	-.521**	.709**	.145
	Sig. (2-tailed)	.000	.063	.000	.000		.001	.000	.371
	N	40	40	40	40	40	40	40	40
Li	Pearson Correlation	.499**	.233	-.674**	-.529**	-.521**	1	-.600**	.032
	Sig. (2-tailed)	.001	.149	.000	.000	.001		.000	.847
	N	40	40	40	40	40	40	40	40
AT	Pearson Correlation	-.646**	-.433**	.487**	.658**	.709**	-.600**	1	-.038
	Sig. (2-tailed)	.000	.005	.001	.000	.000	.000		.817
	N	40	40	40	40	40	40	40	40
S	Pearson Correlation	-.109	-.111	.071	.128	.145	.032	-.038	1
	Sig. (2-tailed)	.503	.494	.664	.432	.371	.847	.817	
	N	40	40	40	40	40	40	40	40

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

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.913 <sup>a</sup>	.834	.804	5.43539

a. Predictors: (Constant), S, Li, L, AT, TDTA, DER

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4904.745	6	817.458	27.670	.000 <sup>b</sup>
	Residual	974.935	33	29.543		
	Total	5879.680	39			

a. Dependent Variable: ROA

b. Predictors: (Constant), S, Li, L, AT, TDTA, DER

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	177.248	18.054		9.817	.000
	TDTA	-1.731	.209	-3.030	-8.296	.000
	DER	1.109	.133	9.406	8.329	.000
	L	-.968	.115	-8.211	-8.421	.000
	Li	-.053	.009	-.895	-5.667	.000
	AT	-.041	.072	-.069	-.573	.570
	S	3.579	2.276	.122	1.573	.125

a. Dependent Variable: ROA

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 <sup>a</sup>	.648	.584	10.46077

a. Predictors: (Constant), S, Li, L, AT, TDTA, DER

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6640.199	6	1106.700	10.114	.000 <sup>b</sup>
	Residual	3611.112	33	109.428		
	Total	10251.310	39			

a. Dependent Variable: ROE

b. Predictors: (Constant), S, Li, L, AT, TDTA, DER

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	261.920	34.747		7.538	.000
	TDTA	-2.504	.402	-3.320	-6.236	.000
	DER	1.643	.256	10.552	6.410	.000
	L	-1.390	.221	-8.935	-6.287	.000
	Li	-.090	.018	-1.153	-5.009	.000
	AT	-.087	.138	-.112	-.634	.531
	S	4.100	4.380	.106	.936	.356

a. Dependent Variable: ROE

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