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Exploring the Relationship between Capital Structure and Financial Performance in Rwanda Manufacturing Firms: Case of Cimerwa PLC (2019-2023)

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ABSTRACT

This study examines the relationship between capital structure and financial performance at Cimerwa Plc for the period 2019 to 2023. The problem addressed in this research is the lack of comprehensive understanding regarding how capital structure decisions, particularly the mix of debt and equity, affect the financial performance of manufacturing firms in Rwanda. This gap in knowledge is particularly critical for Cimerwa Plc, a leading cement manufacturer, which relies on optimal capital structure for its financial stability and growth. The primary objectives of the study were to analyze Cimerwa's capital structure, assess its financial performance over the period under study, and determine the nature of the relationship between capital structure and financial performance. This study is grounded in three key theories: the Trade-Off Theory, which suggests that companies balance the benefits of debt (such as tax shields) against the potential costs of financial distress; the Pecking Order Theory, which posits that firms prefer internal financing over external financing sources; and the Agency Theory, which addresses conflicts of interest between managers and shareholders that can lead to suboptimal capital structure decisions. These theories provided the framework for understanding how capital structure affects financial performance, particularly in the context of manufacturing firms in Rwanda. The study adopted a quantitative research design, using a sample size of 40 observations from the company's annual reports and interviews with industry experts. Data collection methods included documentary analysis of financial records and expert interviews to capture both secondary data and qualitative insights. Multiple linear regression analysis was used to test the relationship between capital structure variables (debt ratio, equity ratio, and financial leverage) and financial performance indicators such as Return on Assets (ROA), Return on Equity (ROE), and Earnings Per Share (EPS). The findings of the study indicated a significant positive relationship between capital structure and financial performance. The regression model showed an R value of 0.791, indicating a strong positive correlation between the independent variables and Cimerwa's overall financial performance. The R Square value of 0.625 suggests that approximately 62.5% of the variance in Cimerwa's financial performance can be explained by the capital structure variables included in the model. The Adjusted R Square value of 0.603, which adjusts for the number of predictors, indicates that the model still explains a good portion of the variation in the dependent variable, highlighting the relevance of these predictors. Furthermore, the F Change statistic of 178.171, with a Sig. F Change value of 0.000, confirms the statistical significance of the model, demonstrating that capital structure decisions have a significant impact on Cimerwa's financial outcomes. Based on the findings, the study recommends that Cimerwa Plc adopt a more structured approach to its financing strategy, focusing on maintaining an optimal balance between debt and equity. This would minimize financial risks while maximizing returns. Additionally, continuous monitoring of financial performance, strategic debt management, and improved liquidity management are essential for sustaining long-term growth and financial stability.

KEYWORDS: *Capital Structure, Financial Performance, Return on Equity, Debt Ratio, Cimerwa Plc.*

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1. GENERAL INRODUCTION

1.0. Introduction

The chapter presents the background to the study, statement of the problem, objectives of the study, hypothesis of the research, scope of the study and significance of the study.

1.1. Background to the Study

Capital structure, is the proportion of debt and equity a company uses to finance its operations, plays a significant role in determining the financial performance of manufacturing companies. Recent studies emphasize the dual influence of debt and equity on financial performance, particularly in capital-intensive industries like manufacturing. Debt financing often provides tax benefits, reducing the overall cost of capital and positively impacting financial performance metrics such as Return on Assets (ROA) and Return on Equity (ROE). However, high levels of debt can increase financial risk, potentially leading to lower financial performance when firms face unstable revenues or economic downturns (Alaraji et al., 2020).

Empirical findings suggest a nonlinear relationship between capital structure and financial performance, where moderate levels of leverage enhance performance, but excessive reliance on debt adversely affects financial stability and returns (Yegon, 2021). Equity financing, although less risky, often leads to earnings dilution, impacting shareholder returns. Studies also highlight industry-specific factors such as asset tangibility and operational efficiency as critical determinants of the optimal capital structure (Musah, 2022). For manufacturing firms, aligning capital structure decisions with operational goals ensures cost efficiency and financial sustainability, ultimately maximizing financial performance (Mahmood, 2021). These findings underscore the importance of strategic capital structure management tailored to the specific needs and market conditions of manufacturing companies.

Capital structure decisions significantly impact the financial health and sustainability of manufacturing companies globally. Poor management of debt and equity financing can lead to severe financial distress and, in some cases, bankruptcy. In South America, the Brazilian steel manufacturer Usinas Siderúrgicas de Minas Gerais S.A. (Usiminas) faced severe financial challenges due to an overreliance on debt financing.

The company's aggressive borrowing strategy during periods of economic growth left it vulnerable when Brazil experienced a recession in the mid-2010s. Plummeting steel prices and reduced demand further exacerbated its inability to service debt, pushing the company into a financial crisis. Studies suggest that Usiminas failed to balance its capital structure with sufficient equity, which could have provided resilience during economic downturns (Souza et al., 2019).

In Europe, the German manufacturing firm A.T.U Auto-Teile-Unger, specializing in automotive parts, struggled with high levels of debt accumulated through leveraged buyouts. The company's inability to generate sufficient cash flow to cover interest payments on its borrowings led to operational inefficiencies and eventual insolvency in 2019. Analysts attribute A.T.U's downfall to its failure to maintain a balanced debt-to-equity ratio and its dependence on short-term debt to finance long-term investments (Meier, 2020). In Asia, the Indian manufacturing company Alok Industries serves as a cautionary tale of poor capital structure management. The textile giant heavily borrowed to fund its rapid expansion, underestimating the importance of maintaining liquidity and equity buffers. When market conditions worsened, Alok Industries was unable to repay its debts, leading to bankruptcy proceedings in 2020. Research highlights how excessive financial leverage, coupled with misaligned capital allocation, contributed to its collapse (Kumar, 2021).

Capital structure is a crucial factor in determining the financial performance and financial performance of manufacturing companies. It refers to the mix of debt and equity used by a firm to finance its operations and expansion. An optimal capital structure enables firms to leverage their financing costs to maximize financial performance, while poor management of debt and equity financing can lead to financial distress and failure. Empirical studies have consistently highlighted the impact of capital structure on the financial performance of manufacturing firms, with varying conclusions depending on the region, industry, and market conditions.

For instance, in the Nigerian context, high debt levels were negatively correlated with the financial performance of manufacturing firms, as excessive debt increased financial risk and interest obligations (Ogunyomi, 2020). Similarly, in Kenya, companies with a high proportion of debt financing struggled with liquidity issues and declining financial performance, particularly during economic downturns (Kinyua, 2019).

On the other hand, in Ghana it is argued that a moderate level of leverage could enhance financial performance, as it provided the necessary capital for expansion without overwhelming the firm with debt

obligations. This suggests that the relationship between capital structure and financial performance is not linear and can vary based on the context and the firm's ability to manage its debt levels effectively (Musah, 2022).

Companies in the manufacturing sector, including cement manufacturers, faced challenges due to poor capital structure decisions. Companies that relied too heavily on short-term debt financing for long-term investments often struggled to meet their debt obligations, leading to a decline in financial performance (Nsengiyumva, 2023). This was particularly evident in firms like Cimerwa Plc, Rwanda's largest cement manufacturer, which has experienced fluctuations in financial performance linked to its capital structure decisions. The current study, titled Exploring the Relationship Between Capital Structure and Financial performance in Manufacturing Companies in Rwanda: A Case of Cimerwa Plc, aims to investigate how the capital structure decisions of Cimerwa Plc influence its financial performance.

By examining the debt-to-equity ratio, the cost of capital, and financial performance metrics such as Return on Assets (ROA) and Return on Equity (ROE), this study seeks to provide insights into how manufacturing firms in Rwanda can optimize their capital structure to enhance financial performance. Specifically, the study aims to determine the optimal mix of debt and equity that would enable Cimerwa Plc to maintain financial performance while minimizing financial risk.

1.2. Statement of the Problem

An optimal capital structure, which effectively balances debt and equity financing, is vital for maximizing financial performance and minimizing financial risk in manufacturing companies. When firms fail to manage this balance properly, they often experience financial instability, resulting in declining profitability and hindered growth potential (Modigliani, 2019). This is particularly relevant for Cimerwa Plc, Rwanda's largest cement manufacturer, which has faced considerable challenges in managing its capital structure between 2019 and 2023. The company's heavy reliance on debt financing has created significant financial strain, exacerbating its overall financial performance (Nsengiyumva, 2020).

In 2019, Cimerwa's debt-to-equity ratio stood at 2.5:1, signaling a heavy dependence on debt compared to equity (Nsengiyumva, 2020). This structure has led to escalating debt servicing costs, with the company allocating 25% of its total operational costs to interest payments by 2020 (Ogundipe et al., 2021). Additionally, the depreciation of the Rwandan franc has compounded the problem, increasing the cost of servicing foreign-denominated debt, further weakening the company's financial position (Murenzi, 2022). As a result, Cimerwa's net profit margin saw a decline of 4.5% in 2021 when compared to 2019 levels, illustrating the detrimental effects of its debt-heavy capital structure on its profitability (Rwibasira, 2022).

The challenges associated with high debt servicing costs have further hindered Cimerwa's ability to invest in critical areas such as production expansion, operational efficiency improvements, and market diversification (Habumugisha, 2023). These inefficiencies, if left unaddressed, pose a serious risk of continued financial stagnation, diminished competitiveness in the East African cement market, and difficulties in securing favorable financing terms for future investments (Muhire et al., 2023). The problem at hand is that Cimerwa's current capital structure is not optimized to enhance financial performance and minimize financial risk, with its high reliance on debt financing acting as a constraint to the company's long-term success.

This study aims to investigate the impact of capital structure on Cimerwa's financial performance, specifically examining key financial indicators such as the debt-to-equity ratio, cost of capital, Return on Assets (ROA), and Return on Equity (ROE). By analyzing these factors, the research will offer critical insights into the optimal financing strategies that can minimize financial risk while enhancing the company's financial performance. Ultimately, the findings of this study are expected to inform strategic decisions that could lead to a more balanced and effective capital structure, enabling Cimerwa to achieve sustainable growth and improved profitability in the long run.

1.3. Objectives of the research

The research was guided by general objective and specific objectives.

1.3.1. General objective

The general objective of the study was to analyze effect of capital structure on financial performance of manufacturing companies in Rwanda.

1.3.2. Specific Objectives

This research was guided by the following specific objectives:

1. To analyze the capital structure of Cimerwa Plc
2. To assess the level of financial performance of Cimerwa Plc during the period of 2019-2023.
3. To find out the relationship between the capital structure and financial performance of Cimerwa Plc.

1.3.3. Research questions

The study answered the following questions:

1. How is the capital structure of Cimerwa Plc,
2. What is the level of financial performance of Cimerwa Plc during the period of 2019-2023,
3. Is there any significant relationship between the capital structure and financial performance of Cimerwa Plc.

1.4. Hypothesis of research

The research tested the following hypothesizes:

H_0: There is no significant relationship between the capital structure and financial performance of Cimerwa Plc,

H_1: There is a significant relationship between the capital structure and financial performance of Cimerwa Plc.

1.5. The Scope of the Study

The scope of this research was geographical scope, content scope, and time scope.

1.5.1. Content scope

The content scope of this study is focused on assessing the relationship between capital structure and financial performance in manufacturing companies, specifically in the case of Cimerwa Plc. The study examined how different components of capital structure, such as debt-to-equity ratio, cost of debt, and financial leverage, impact the financial performance indicators like Return on Assets (ROA), Return on Equity (ROE), current ratio, quick ratio, net profit margin, inventory turnover and receivable turnover within the context of a cement manufacturing company.

1.5.2. Geographic scope

The study focused on Cimerwa Plc, which is located in the Rusizi District, Bugarama Sector, West Province of Rwanda. This geographical scope is significant as it allows for an in-depth analysis of the company's financial management practices within the context of Rwanda's economic and industrial landscape. The study examined how the company's location and regional market dynamics impact its capital structure and financial performance. It also considered the influence of local economic conditions, regional infrastructure, and governmental policies in shaping the financial strategies employed by Cimerwa.

1.5.3. Time scope

The time scope of the study is limited to the period from 2019 to 2023. This five-year period allows for a comprehensive examination of Cimerwa's capital structure and financial performance trends, capturing the financial performance over a significant period of time. The chosen timeframe also coincides with key developments in Rwanda's manufacturing sector, such as increased demand for cement and the implementation of infrastructure projects that may have influenced Cimerwa's capital structure decisions. Additionally, this period encompasses external economic shocks, such as fluctuations in the exchange rate and the global economic downturn caused by the COVID-19 pandemic, which may have impacted Cimerwa's financial management.

1.6. Significance of the Study

The study is significant to the following stakeholders:

1.6.1. To the researcher

This study provides the researcher with a deeper understanding of how capital structure influences the financial performance of manufacturing companies, specifically focusing on CIMERWA Plc in Rwanda. By exploring the optimal balance between debt and equity, the research contributes to the academic discourse on financial management practices in the context of emerging markets. It will offer empirical insights that can be used in future research on corporate finance, capital structure theories, and financial performance measurement in manufacturing firms. Moreover, the study help refine methodologies for analyzing the financial performance of firms in developing economies, where financial management practices and access to capital may differ significantly from developed markets.

1.6.2. To UNILAK

This study holds significant academic value for UNILAK, contributing to the field of business administration and finance by offering fresh insights into the relationship between capital structure and financial performance in manufacturing companies. The findings enriched the university's curriculum, particularly in courses related to corporate finance, economics, and business strategy. Additionally, the research serves to showcase UNILAK's commitment to producing research that addresses real-world business challenges in Rwanda and other East African countries. It also enhances the university's reputation in the academic community by demonstrating its capacity to engage in research that aligns with national economic development goals and business needs.

1.6.3. To CIMERWA Plc

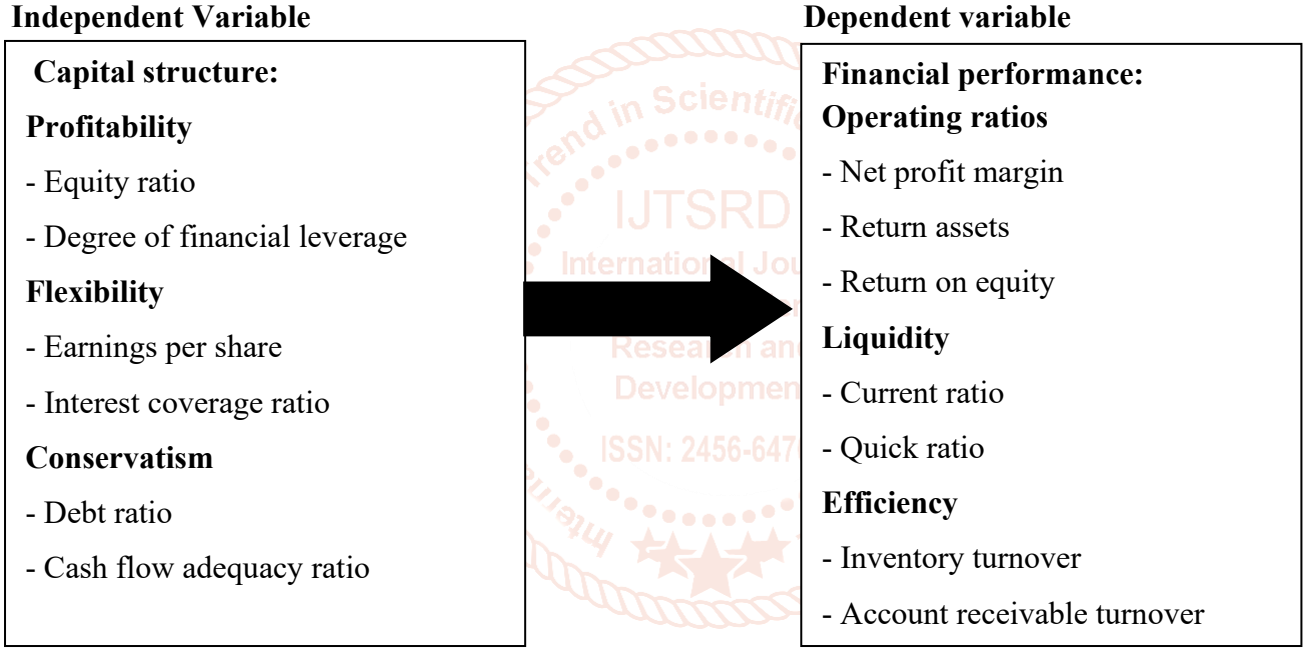
For CIMERWA Plc, the study offers valuable insights that can guide the company's strategic decision-making regarding capital structure. By identifying the optimal mix of debt and equity financing, CIMERWA can improve its financial performance and reduce financial risks, which have long-term positive effects on its growth and market competitiveness. The findings help CIMERWA's management team

understand the impact of debt on its financial stability, enabling them to make more informed decisions regarding future financing strategies. Furthermore, the study provides the company with actionable recommendations to optimize capital allocation, improve cash flow management, and reduce the financial burden from debt servicing. As Cimerwa looks to expand its market share and invest in new technologies, the research served as a critical tool for shaping its future financial strategy.

1.7. Conceptual framework

The conceptual framework of this study investigates the link between capital structure and financial performance in manufacturing companies, with a particular focus on CIMERWA Plc. The framework is grounded in the capital structure theory, which posits that the right balance between debt and equity can enhance financial performance and financial performance (Kinyua, 2019). Specifically, the study will explore how key capital structure elements such as debt-to-equity ratio, financial leverage, and cost of capital influence financial performance indicators like Return on Assets (ROA) and Return on Equity (ROE). Previous empirical research suggests that excessive debt can increase financial risk, leading to a negative impact on financial performance, while a balanced mix of equity and debt can improve financial performance by reducing the financial burden on a company (Kiiru, 2019). By applying this framework, the study aims to understand how CIMERWA's capital structure decisions have affected its financial performance in recent years and offer insights into optimal financial strategies for improving its financial performance.

Figure 1.1. Conceptual framework



Source: Researcher compilation, 2024

1.8. Definition of operational key

This section presents the definitions of key financial metrics that are commonly used to analyze a company's capital structure and financial performance. These metrics are essential for understanding how a company finances its operations and how these financing decisions impact financial performance and financial performance.

1.8.1. Capital Structure

Capital Structure refers to the mix of debt and equity that a firm uses to finance its operations and growth. It reflects how a company funds its overall activities and assets using different sources of funds such as long-term debt, short-term debt, common equity, and preferred equity. An optimal capital structure balances the cost of capital and the risk of insolvency, aiming to maximize shareholder value. In the context of this study, capital structure is crucial in determining how Cimerwa Plc strategically finances its manufacturing operations to achieve sustainable financial performance while minimizing risks associated with high leverage (Damodaran, 2019).

1.8.2. Profitability

Profitability measures a firm's ability to generate income relative to its revenue, assets, equity, and other financial inputs. Ratios such as return on equity and equity ratio are commonly used to gauge this dimension (Gibson, 2021). Profitability in this study evaluates how Cimerwa's capital structure supports income generation and shareholder returns.

1.8.3. Equity Ratio

This ratio shows the proportion of equity used to finance the company's assets. A higher ratio indicates

financial independence (Peterson, 2019). In Cimerwa, it represents the balance between debt and equity financing.

1.8.4. Degree of Financial Leverage

DFL measures how sensitive the company's earnings per share are to changes in operating income due to fixed financial costs (Brigham, 2020). In this study, it helps assess the impact of Cimerwa's capital structure on profitability.

1.8.5. Flexibility

Flexibility refers to a firm's capacity to respond to changing financial conditions, market dynamics, and unforeseen expenses. It is commonly assessed using metrics like earnings per share and interest coverage ratio, which reflect the firm's resilience and adaptive capability (Gitman, 2021). For Cimerwa, financial flexibility indicates its ability to manage debt and seize investment opportunities while maintaining financial stability.

1.8.6. Earnings per Share

EPS indicates the portion of a company's profit allocated to each outstanding share. It reflects profitability from shareholders' perspective (Gitman, 2021). In Cimerwa's case, a high EPS signifies effective capital utilization and investor returns.

1.8.7. Interest Coverage Ratio

This ratio evaluates a company's ability to pay interest on its outstanding debt. A higher value suggests better debt service capacity (Brealey, 2020). It shows how well Cimerwa handles financial obligations related to debt.

1.8.8. Conservatism

Conservatism in finance relates to a cautious approach to financial planning and capital structure, emphasizing risk management and debt limitation. Ratios like the debt ratio and cash flow adequacy ratio are used to evaluate this trait (Damodaran, 2019). In this study, conservatism reflects how prudently Cimerwa manages its debt and ensures the sustainability of its financial resources.

1.8.9. Debt Ratio

The debt ratio measures the proportion of a company's assets financed through debt. A high debt ratio may indicate risk but also potential growth (Damodaran, 2019). This is crucial for evaluating Cimerwa's reliance on debt in its capital structure.

1.8.10. Cash Flow Adequacy Ratio

This ratio assesses if the firm's operating cash flow is sufficient to cover long-term debt and capital expenditures (Stickney, 2021). For Cimerwa, it signals financial sustainability and long-term planning capacity.

1.8.11. Financial Performance

Financial performance refers to how well a company uses its assets from its primary mode of business to generate revenues and profitability. It includes various indicators such as profitability, liquidity, efficiency, and leverage ratios to evaluate the firm's operational and financial health (Brigham, 2020). In this study, financial performance indicates how effectively Cimerwa Plc utilizes its financial resources and capital structure to achieve profitability and sustainable growth.

1.8.12. Operating Ratios

Operating ratios are financial metrics that evaluate a company's operational efficiency by analyzing its core business activities in relation to revenue generation. These include measures like net profit margin, return on assets, and return on equity, which collectively show how well a firm converts its resources into profits (Brigham, 2020). In this study, operating ratios help assess how efficiently Cimerwa Plc manages its operations to generate returns from its investments and revenue streams.

1.8.13. Net Profit Margin

This ratio measures how much net income is generated as a percentage of revenues. It shows a firm's ability to manage expenses relative to total revenue (Palepu, 2019). For Cimerwa Plc, a higher net profit margin suggests effective cost management and improved profitability.

1.8.14. Return on Assets

ROA indicates how efficiently a company uses its assets to generate profit. It is calculated by dividing net income by total assets (Ross, 2020). In this study, ROA reflects Cimerwa's ability to convert asset investments into earnings.

1.8.15. Return on Equity

ROE measures how effectively a company uses shareholders' equity to generate profits. It is an indicator of financial efficiency (Gibson, 2021). A higher ROE in Cimerwa would imply that the firm is effectively using investors' funds.

1.8.16. Liquidity Ratios

Liquidity refers to a firm's ability to meet its short-term financial obligations using its current assets. Common liquidity ratios include the current ratio and quick ratio, which provide insight into the company's financial stability and ability to pay debts as they come due (Fraser, 2019). For Cimerwa, liquidity indicates whether the firm can maintain smooth operations and avoid cash shortages during its production and distribution activities.

1.8.17. Current Ratio
This ratio measures a firm's ability to pay its short-term liabilities with short-term assets. A current ratio above 1 indicates financial health (Fraser, 2019). For Cimerwa, it shows its short-term financial stability and capacity to meet obligations.

1.8.18. Quick Ratio
Also known as the acid-test ratio, it excludes inventory from current assets to provide a stricter measure of liquidity (White, 2020). It helps assess whether Cimerwa can meet immediate liabilities without relying on inventory.

1.8.19. Efficiency Ratios
Efficiency refers to how well a company uses its assets and manages its operations to generate revenue. Efficiency ratios, such as inventory turnover and accounts receivable turnover, measure the speed and effectiveness of resource utilization (Higgins, 2019). In the context of this study, efficiency assesses Cimerwa's ability to manage its production cycles and cash flow through effective handling of inventory and receivables.

1.8.20. Inventory Turnover
This ratio measures how frequently inventory is sold and replaced over a period. A higher turnover implies efficient inventory management (Higgins, 2019). For Cimerwa, it indicates how effectively it manages production and sales cycles.

1.8.21. Accounts Receivable Turnover
This ratio assesses how efficiently a company collects receivables from customers. A high turnover means quicker collections (Walsh, 2021). In this study, it reflects how fast Cimerwa converts credit sales into cash.

2. LITERATURE REVIEW
2.0. Introduction
In research, literature refers to existing scholarly works, including articles, books, and other publications, relevant to the topic under investigation. This body of literature provides a foundation for understanding the current state of knowledge, identifying gaps or controversies, and informing the research design and methodology. Literature review involves systematically examining and synthesizing existing literature to contextualize the research problem, establish theoretical frameworks, and support the development of hypotheses or research questions. This chapter covers Conceptual and theoretical Perspectives, critical review, conceptual framework and related case studies.

2.1. Theoretical review
The relationship between capital structure and financial performance is a critical area of study, with various theories providing insights into how financing decisions impact firm performance. The Trade-Off Theory suggests that firms balance the benefits of debt, such as tax shields, against the costs of financial distress. In Rwanda, manufacturing companies can benefit from debt financing but must be cautious of over-leveraging, which could lead to financial instability (Otet, 2019). The Pecking Order Theory highlights that firms prioritize internal financing over external sources due to limited access to capital. For Rwandan firms, reliance on retained earnings can constrain growth and negatively impact financial performance when internal resources are insufficient (Ngugi, 2019). Lastly, the Agency Theory addresses the conflicts of interest between managers and shareholders, which can lead to inefficient capital structure decisions, particularly in family-owned firms, affecting overall financial performance (Akinlo, 2020).

These theories Trade-Off Theory, Pecking Order Theory, and Agency Theory collectively provide a framework for understanding how capital structure influences financial performance in Rwandan manufacturing firms. While leveraging debt can improve performance through tax advantages, firms must carefully balance this with the risks of financial distress. Given the challenges of accessing external capital and potential agency conflicts, finding the right mix of debt and equity is crucial for optimizing financial performance. This balance is especially important in the Rwandan context, where financing constraints and ownership structures can influence capital structure decisions and financial outcomes (Otet, 2019).

2.1.1. Trade-off
The Trade-Off Theory of capital structure was introduced by Kraus and Litzenberger in 1973. It emerged as a response to the Modigliani-Miller theorem, which argued that a firm's value is independent of its capital structure in a perfect market. Kraus and Litzenberger argued that in reality, firms face trade-offs between the benefits and costs of debt. They identified that while debt provides tax benefits (tax shields), excessive debt increases the risk of financial distress and bankruptcy. This theory provides a framework for firms to optimize their capital structure by balancing these two opposing forces (Modigliani, 1958).

The Trade-Off Theory was developed further in the subsequent decades by several scholars. Jensen incorporated agency costs into the theory, highlighting that managerial behavior and the separation of ownership and control could affect a firm's capital structure decisions (Jensen, 1976). Over

time, the theory has been refined to include considerations such as bankruptcy costs, personal taxes, and market imperfections, making it relevant for both developed and emerging economies (Nyamwange, 2020).

The theory has become widely used in corporate finance to explain why firms might choose certain levels of debt in their capital structure, aiming for an optimal mix that minimizes the overall cost of capital (Otet, 2019).

The primary strength of the Trade-Off Theory is its ability to account for both the benefits and the costs of debt financing, offering a more realistic view of capital structure decisions than earlier theories. The theory's simplicity in explaining the balance between tax benefits and financial distress costs makes it particularly useful for understanding capital structure in different contexts, including developing economies like Rwanda (Kinyua, 2019). It provides a framework for firms to assess how much debt is optimal in maximizing value, which is particularly relevant for manufacturing companies looking to enhance financial performance through leverage while managing risk (Otet, 2019).

Despite its strengths, the Trade-Off Theory has notable weaknesses. One of the major limitations is its oversimplification of capital structure decisions, focusing mainly on tax shields and bankruptcy costs while ignoring other factors such as agency costs, market imperfections, and information asymmetry (Ngugi, 2019). Moreover, it assumes that firms can easily access debt and equity markets at favorable terms, which may not always be the case in developing economies with underdeveloped financial markets (Kinyua, 2019). Additionally, the theory fails to consider non-financial factors, such as management preferences and market timing, that may influence capital structure decisions in practice (Akinlo, 2020).

The Trade-Off Theory is highly relevant for understanding the capital structure decisions of manufacturing firms in Rwanda, such as CIMERWA Plc. The theory helps explain how these firms might use debt financing to achieve tax advantages and expand their operations while being cautious of the financial distress that excessive debt can bring. For instance, CIMERWA may choose to increase its debt ratio to leverage tax benefits, but it must also consider the risks of financial distress that could hurt its financial performance. The theory contributes to this study by offering a lens through which the effect of capital structure on financial performance in Rwandan manufacturing firms can be assessed, helping identify optimal levels of debt that support growth without compromising financial stability (Nyamwange, 2020).

2.1.2. Pecking theory

The Pecking Order Theory was introduced by Myers and Majluf in 1984. The theory challenges the traditional view of capital structure, which assumes that firms make financing decisions based on an optimal mix of debt and equity. Instead, the Pecking Order Theory posits that firms prefer to finance their operations using internal funds (retained earnings) over external sources, such as debt or equity. This preference arises due to asymmetric information between the firm and potential investors firms with high-quality information about their prospects tend to finance first with internal resources. When these are exhausted, they turn to debt, and only as a last resort do they issue equity, as it is considered the most expensive option.

Since its development, the Pecking Order Theory has been widely studied and expanded upon, particularly in emerging markets where access to financing is more restricted. Several studies have tested the theory's applicability in various sectors, including manufacturing firms. The theory's foundation is based on the assumption that external financing is costly due to information asymmetry, leading firms to follow a hierarchy in their financing decisions (Myers & Majluf, 1984). Over time, the theory has evolved, with some researchers incorporating factors such as firm size, growth opportunities, and the cost of debt into the framework (Akinlo, 2020).

The key strength of the Pecking Order Theory lies in its simplicity and its ability to explain financing decisions based on the information asymmetry between managers and external investors. The theory provides a practical framework for understanding why firms, especially in emerging markets, may struggle to access external financing and rely heavily on internal funds (Ngugi, 2019). This is particularly relevant in Rwanda, where access to credit is limited for small and medium-sized manufacturing firms. By prioritizing internal funds, firms can avoid the high costs associated with external financing, thus maintaining greater control over their operations. Additionally, the theory explains why companies with better growth prospects might opt for debt over equity, as they can signal their quality through debt issuance without giving up ownership (Kinyua, 2019).

Despite its strengths, the Pecking Order Theory has limitations. One weakness is that it assumes firms always prefer to use internal funds before considering debt or equity, which may not be the case for all firms. In practice, some firms may be unable to

accumulate enough internal resources to finance their operations or expansion, especially in capital-intensive industries like manufacturing (Otet, 2019).

Moreover, the theory overlooks factors such as market conditions and the potential for market timing, where firms might issue equity during favorable market conditions even if it contradicts the hierarchy suggested by the theory (Kinyua, 2019). Furthermore, while the theory accounts for information asymmetry, it does not fully address other factors that might influence capital structure decisions, such as managerial preferences and corporate governance structures.

The Pecking Order Theory provides valuable insights into the capital structure decisions of manufacturing firms in Rwanda. In the case of CIMERWA Plc, the theory suggests that the company may rely heavily on retained earnings to finance its operations, especially in the context of limited access to external financing sources. The constraints in accessing external funding, due to underdeveloped capital markets and high interest rates, can impact CIMERWA's financial performance if internal resources are insufficient for expansion or operational needs. The theory's application helps explain the challenges faced by manufacturing firms in Rwanda, where external financing options are limited, and how these firms might prioritize internal funds over debt or equity (Ngugi, 2019; Kinyua, 2019). The study, therefore, aims to explore how the Pecking Order Theory impacts financial performance, particularly in the context of capital constraints in Rwandan manufacturing firms.

2.1.3. Agency theory

The Agency Theory was developed by Jensen and Meckling in 1976. The theory focuses on the relationship between principals (shareholders) and agents (managers), emphasizing the potential conflicts of interest between the two parties. The central premise of the theory is that because managers (agents) do not always act in the best interests of shareholders (principals), agency costs arise. These costs can result from managers' incentives to maximize their own welfare rather than the company's financial performance, leading to inefficient decision-making, including suboptimal capital structure choices. For instance, managers may choose to increase leverage to expand the business, even when such decisions do not align with the interests of shareholders, or they may underinvest to avoid risk, reducing overall financial performance.

Agency Theory has been extensively developed in the context of corporate finance. Over time, scholars have refined the theory by integrating concepts such as agency costs, monitoring mechanisms, and incentive structures to address the impact of managerial behavior on capital structure decisions (Jensen, 1976). The theory gained prominence in the 1980s as it became clear that the separation of ownership and control in firms could lead to conflicts that affected company performance.

Researchers have further elaborated on the various types of agency problems, including ownership concentration and managerial discretion, both of which play a critical role in capital structure decisions (Nyamwange, 2020). In the context of manufacturing firms, especially in developing economies like Rwanda, agency problems can significantly affect capital structure decisions. Many Rwandan manufacturing companies are family-owned or have concentrated ownership, which increases the potential for conflicts between shareholders and managers. For instance, family-run businesses may prioritize personal interests over the financial health of the company, potentially leading to inefficient capital structure decisions (Kinyua, 2019). This can result in over-leveraging or under-investment, both of which can harm financial performance.

The main strength of the Agency Theory lies in its ability to explain how conflicts of interest between shareholders and managers lead to suboptimal capital structure decisions. It provides a framework for understanding why certain firms may prefer specific financing options, such as excessive debt or retained earnings, and how these choices may not always be aligned with maximizing shareholder wealth (Jensen, 1976). Additionally, the theory offers practical insights into how incentive contracts and monitoring mechanisms can reduce agency costs and align the interests of managers and shareholders, ultimately leading to more efficient capital structure decisions (Otet, 2019). For firms in Rwanda, where managerial behavior is often less transparent, the Agency Theory highlights the need for effective governance mechanisms to prevent managerial self-interest from negatively impacting capital structure and financial performance.

Despite its strengths, Agency Theory has its limitations. One key weakness is that it assumes all managers act opportunistically, which may not always be the case in practice. In many situations, managers may genuinely seek to improve firm performance but are constrained by external factors such as market conditions or limited access to finance (Akinlo, 2020). Furthermore, Agency Theory tends to oversimplify the complexity of managerial behavior by focusing mainly on conflicts between shareholders and managers, while neglecting other important

stakeholders such as employees or customers, who can also influence capital structure decisions. Moreover, in family-owned firms, where owners often occupy managerial positions, the agency problems related to ownership concentration may not be as pronounced (Ngugi, 2019). This reduces the applicability of the theory in such contexts.

The Agency Theory is crucial for understanding the impact of capital structure decisions on the financial performance of manufacturing firms in Rwanda, particularly in the case of CIMERWA Plc. CIMERWA, like many Rwandan manufacturing companies, is potentially affected by agency problems due to the concentrated ownership structure and the possibility that management may prioritize personal interests over the long-term financial performance of the company. Agency costs in such firms could result in over-leveraging, which increases financial risk, or under-investment, which hinders growth and financial performance. By examining the Agency Theory, this study aims to explore how managerial conflicts of interest influence capital structure decisions and how these decisions, in turn, affect the financial performance of CIMERWA. This will provide valuable insights into how corporate governance mechanisms, such as better alignment of interests and effective monitoring, can mitigate agency costs and enhance financial performance in the manufacturing sector (Akinlo, 2020).

2.2. Conceptual review

Based on the earlier definitions of key concepts, the relationship between capital structure and financial performance in manufacturing companies is integral to understanding their financial performance. Capital structure refers to the combination of debt and equity financing that a company employs to fund its operations and growth. Key ratios such as the debt-to-equity ratio, debt ratio, and equity multiplier help assess the degree of financial leverage and risk that a firm assumes. A higher proportion of debt can increase financial performance by leveraging the firm's resources, but it also introduces greater financial risk, especially if the company struggles to meet debt obligations.

In contrast, relying more on equity reduces financial risk but may also limit financial performance due to the higher cost of equity and dilution of ownership (Jensen & Meckling, 1976). Financial performance metrics, such as net profit margin, return on assets (ROA), and return on equity (ROE), offer insights into how well a firm uses its capital to generate profits (Akinlo, 2020). For manufacturing firms in Rwanda like CIMERWA, managing an optimal balance between debt and equity is crucial, as it affects both their financial risk and financial performance, especially considering the challenges of limited external financing (Ngugi, 2019). This study aims to investigate how these concepts are applied in CIMERWA Plc and how its capital structure decisions impact its financial performance.

2.2.1. Conceptual review on capital structure

Capital structure refers to the mix of debt and equity financing that a company uses to fund its operations, growth, and expansion. This combination plays a critical role in determining a firm's financial stability, cost of capital, and overall financial performance. Firms often face a trade-off between using debt, which can magnify returns but also increases financial risk, and equity, which provides a safer, though often more expensive, form of financing (Ngugi, 2019). The decision regarding capital structure is influenced by several factors, including market conditions, company size, financial performance, and the industry in which the firm operates (Myers, 1984). In the context of manufacturing companies, finding an optimal capital structure is crucial, as it directly impacts financial performance, investment capacity, and the company's ability to weather economic challenges (Ngugi, 2019). This balance is especially important for firms in developing markets, where access to external capital may be limited, and maintaining an efficient capital structure can be key to sustaining growth and financial performance (Akinlo, 2020).

2.2.1.1. Profitability

Profitability serves as a critical indicator for assessing whether a company has achieved a sound capital structure. Ratios such as Return on Equity (ROE) and Degree of Financial Leverage (DFL) evaluate the relationship between capital structure and financial performance. These metrics not only highlight the efficiency of capital use but also inform the risk-return balance crucial for manufacturing firms in Rwanda.

1. Equity ratio

The equity ratio is a fundamental capital structure indicator that reflects the proportion of a firm's total assets that are financed by shareholders' equity. It is an essential metric used to assess financial leverage and risk exposure. A higher equity ratio typically indicates a stronger financial position, as it suggests that the firm relies more on its equity than debt to finance its operations. Conversely, a lower equity ratio suggests a higher dependence on debt, which can expose the firm to financial instability, particularly during economic downturns. The equity ratio is especially relevant in capital-intensive sectors such as manufacturing, where significant investments

in fixed assets require sound financing strategies to maintain operational resilience and growth capacity (Brealey, 2020).

Scholars have emphasized the role of equity ratio in promoting long-term financial sustainability. Companies with a higher equity ratio are generally considered less risky by investors and creditors because they are seen as having a stronger capital base to absorb potential losses. This perception can lower the cost of capital and improve access to credit markets. In manufacturing firms such as CIMERWA Plc, maintaining a healthy equity ratio reduces the burden of interest payments and limits the risk of over-leverage, thus enhancing financial flexibility. Empirical studies by authors such as Ochieng (2021) show that firms with stronger equity ratios perform better in periods of economic stress due to their lower debt-servicing obligations and more robust cash flow structures (Ochieng, 2021).

However, the relationship between equity ratio and financial performance is not always straightforward. While high equity levels can signal financial strength, excessively high equity ratios may also indicate that a company is under-leveraged, potentially missing opportunities to amplify returns through debt financing. This is particularly relevant in the manufacturing sector, where strategic borrowing can enable firms to invest in productivity-enhancing technologies and infrastructure. According to Chen (2020), optimal capital structure involves a balanced mix of debt and equity, allowing firms to benefit from tax shields associated with debt while maintaining sufficient equity to support resilience. Thus, in the context of CIMERWA Plc, strategic use of debt within a prudent equity ratio can facilitate expansion and operational efficiency without compromising financial stability (Chen, 2020).

Furthermore, the equity ratio is closely tied to corporate governance and stakeholder confidence. Firms with strong governance structures tend to maintain healthier equity ratios due to disciplined capital allocation practices. This, in turn, builds investor trust and enhances the firm's reputation in the market. In a study by Williams and Taylor (2022), firms that practiced transparency and accountability in their capital structure decisions tended to maintain stable equity ratios, which translated into better financial performance and investor confidence. For CIMERWA Plc, aligning capital structure decisions with governance best practices can reinforce financial integrity and attract long-term investment (Williams & Taylor, 2022).

In addition, the equity ratio plays a vital role in strategic decision-making for risk management and investment planning. Manufacturing firms operating in dynamic and competitive environments must manage financial risks effectively, and a strong equity position offers a buffer against market fluctuations and operational disruptions. Firms with low equity ratios may face liquidity pressures during downturns, limiting their ability to adapt to changes or invest in new opportunities. A study by Korir (2019) on East African manufacturing firms highlighted that firms with higher equity ratios were more resilient during periods of currency devaluation and supply chain disruptions. For CIMERWA Plc, maintaining a stable and sufficient equity ratio enhances the firm's capacity to manage external shocks and pursue long-term strategic goals (Korir, 2019).

Equity ratio is also an important determinant of stakeholder perceptions. Suppliers, creditors, and customers are more likely to engage with firms that demonstrate financial soundness. In the manufacturing sector, where production timelines and delivery commitments are critical, stakeholders place significant emphasis on a firm's financial credibility. Firms with robust equity ratios are better positioned to negotiate favorable terms, sustain partnerships, and improve operational reliability. According to Akintoye (2021), stakeholder confidence in a firm's financial management is a key driver of competitive advantage. This insight is critical for CIMERWA Plc, where sustaining supply chain continuity and customer relationships is vital for growth and market retention (Akintoye, 2021).

To sum up, the equity ratio is a strategic capital structure metric that influences not only a firm's financial stability but also its investment capacity, risk resilience, and stakeholder trust. For a manufacturing firm like CIMERWA Plc, analyzing and optimizing this ratio is essential for achieving sustainable financial performance. Equity ratio serves as a gauge for prudent financial planning and strategic leverage, which are crucial for thriving in capital-intensive industries. The formula for calculating the equity ratio is:

$$E/R = \frac{\text{Total Equity}}{\textit{Total assets}} \times 100$$

This formula allows firms to quantify the portion of assets financed by shareholders and evaluate their reliance on equity versus debt in structuring their operations and future investments.

2. Degree of Financial Leverage (DFL)

The Degree of Financial Leverage (DFL) is a financial ratio that measures the sensitivity of a company's earnings per share (EPS) to fluctuations in its operating income, due to the use of debt in its

capital structure. DFL is calculated as the percentage change in earnings per share divided by the percentage change in operating income. A higher DFL indicates that a company is using more debt relative to equity, which can amplify the returns or losses based on the company's operating performance. However, while DFL can magnify profits, it also increases the risk of financial distress, particularly during periods of low earnings.

A study by Akhtar and Fatima (2018) analyzed the impact of financial leverage on firm performance, highlighting that companies with higher DFL are more likely to experience greater volatility in their financial results. These firms benefit from debt when operating income increases, but suffer disproportionate losses when there is a decline in operating income. The study found that firms with a high DFL are generally more sensitive to market fluctuations, which increases their financial risk but also their potential for higher returns in favorable economic conditions. Therefore, firms must carefully balance their debt levels to avoid excessive financial risk.

In a related study, Hossain and Rahman (2019) explored the role of DFL in corporate finance, emphasizing that it is crucial for firms to assess their DFL in the context of the business cycle. During periods of economic growth, companies with higher DFL can leverage debt to enhance profitability, as operating income tends to rise. However, during downturns, the same leverage can lead to significant losses and exacerbate financial instability. They recommended that firms in volatile industries should be cautious with their debt levels and focus on managing their DFL to avoid excessive financial risk.

DFL is also linked to a firm's capital structure decisions. According to a study by Johnson et al. (2020), companies that use debt strategically, within a balanced capital structure, can optimize their DFL to enhance profitability while managing risk. The study suggested that firms with moderate leverage are in a better position to benefit from DFL, as they can capitalize on the advantages of debt without exposing themselves to undue financial risk. This highlights the importance of having a comprehensive understanding of both DFL and the overall capital structure when making financing decisions.

Moreover, a study by Kim and Lee (2021) examined the relationship between DFL and financial performance, particularly in the context of large corporations. Their findings indicated that firms with a high DFL experienced higher growth rates in earnings and stock prices during periods of economic expansion. However, the downside of this was a greater risk of financial distress during periods of economic contraction. The study concluded that while DFL is an essential tool for understanding the impact of financial leverage on a company's earnings, it should be carefully managed to avoid creating an imbalance in the capital structure that could harm long-term financial stability.

DFL measures the sensitivity of a firm's Earnings Per Share (EPS) to changes in its Operating Income (EBIT). It is expressed as:

$$\text{DFL} = \frac{\text{EBIT}}{EBIT - Interest\ expenses}$$

The ratio provides insights into how financial leverage impacts earnings volatility. A moderate DFL enhances profitability by leveraging fixed-cost financing, while an excessively high DFL increases financial risk. A DFL between 1.5 and 2.0 is generally recommended, indicating a prudent use of leverage without exposing the firm to excessive financial distress. For manufacturing firms in Rwanda, where operational cash flows may fluctuate, staying within this range ensures flexibility and stability.

Research highlights that firms with a DFL within the benchmark range tend to maximize the benefits of leverage without jeopardizing solvency. Habimana and Uwayezu (2020) observed that manufacturing firms with a DFL of 1.8 achieved optimal profitability, balancing risk and returns effectively. Conversely, companies with DFLs exceeding 2.5 faced declining profitability and heightened default risks during economic downturns (Karemera et al., 2021). These findings emphasize the importance of managing interest expenses and maintaining sufficient EBIT to control leverage levels. For Rwandan manufacturing firms, this means aligning capital structure decisions with operational performance to sustain financial health.

Profitability ratios such as ROE and DFL serve as essential measures of a sound capital structure. For Rwandan manufacturing firms, achieving an optimal balance between debt and equity is critical for enhancing financial performance and mitigating risks. By adhering to benchmarks and aligning capital structure with profitability goals, firms can ensure long-term sustainability and shareholder value creation.

2.2.1.2. Flexibility as a Measurement of Sound Capital Structure

Earnings Per Share (EPS) is one of the most widely used financial metrics to measure a company's profitability, as it represents the portion of a company's profit allocated to each outstanding share

of common stock. It is calculated by dividing net income by the weighted average number of shares outstanding during a specific period. EPS provides investors with an indication of a company's financial health and its ability to generate profits for shareholders. It is a critical factor in determining stock prices and is closely monitored by analysts and investors when assessing a company's performance.

According to Lee and Hong (2018), EPS serves as a key performance indicator that reflects a company's ability to generate profits and distribute them to its shareholders. The study highlighted the importance of EPS in assessing the financial viability of a company, as a rising EPS indicates increasing profitability and, therefore, a potentially more attractive investment. EPS is also an essential metric for comparing the financial performance of firms within the same industry. However, the study noted that EPS can be influenced by factors such as share repurchases, accounting policies, and changes in debt, which may require a more in-depth analysis to obtain a clear picture of a company's operational performance.

In their 2019 study, Tan and Tan analyzed the relationship between EPS and stock price volatility. The authors found that EPS has a strong correlation with stock price performance, as investors typically interpret increases in EPS as a sign of a company's improving financial position. Furthermore, a consistent upward trend in EPS over time can enhance investor confidence and lead to higher stock valuations. However, the study also noted that EPS should not be viewed in isolation, as it may be affected by accounting choices and market conditions that could distort its real meaning. As a result, investors must evaluate EPS alongside other financial indicators to make informed investment decisions.

Another important aspect of EPS is its role in dividend policy. According to a study by Mukherjee and Pandey (2020), firms with higher EPS are more likely to distribute higher dividends to shareholders. This is because a higher EPS indicates that a company is generating sufficient profits to cover its operating expenses and still has funds available for distribution. The study emphasized that the sustainability of EPS is vital for maintaining consistent dividend payouts, which, in turn, affects shareholder satisfaction and retention. Therefore, firms must focus on maintaining a stable and growing EPS to ensure a steady dividend policy that can appeal to long-term investors.

Furthermore, EPS is often used in the calculation of the Price-to-Earnings (P/E) ratio, which is a widely used valuation tool. In a study by Zhang and Xu (2021), it was argued that the P/E ratio, when used in conjunction with EPS, helps investors assess the relative value of a company's stock. A higher P/E ratio relative to the industry average can indicate that a company is overvalued, while a lower P/E ratio might suggest undervaluation. However, the study also cautioned that an overreliance on the P/E ratio and EPS alone could lead to misleading investment decisions, especially when a company experiences short-term earnings fluctuations that do not reflect its long-term growth potential.

Flexibility in capital structure is essential for ensuring that a company can adapt to changing market conditions without jeopardizing its long-term financial stability. Ratios like Earnings Per Share (EPS) and Interest Coverage Ratio (ICR) offer critical insights into a company's financial flexibility. These ratios enable firms to evaluate their ability to manage debt levels while maintaining financial performance and operational performance. For a manufacturing company like CIMERWA PLC, these metrics are key to understanding how their capital structure impacts overall financial performance and long-term success.

1. Earnings Per Share (EPS)

Earnings Per Share (EPS) is an essential metric for measuring a company's financial performance on a per-share basis, which is crucial for assessing how well a firm utilizes its capital structure to generate income for shareholders. The importance of flexibility in capital structure lies in a company's ability to adjust to market dynamics, manage risk, and seize growth opportunities while maintaining financial stability. The Interest Coverage Ratio (ICR) is a key measure of flexibility, as it indicates a company's ability to meet interest payments on debt from its earnings before interest and taxes (EBIT). A high ICR signifies that a company can comfortably manage its debt obligations, reducing the risk of financial distress and enabling it to take advantage of favorable market conditions or new investment opportunities (Titman & Wessels, 2018). EPS is calculated as:

$$\text{EPS} = \frac{\text{Net Income} - \text{Preferred dididends}}{\textit{Weighted average shares outstanding}}$$

EPS provides a clear picture of a company's ability to generate earnings relative to its outstanding equity capital. A higher EPS indicates more efficient use of capital, which is beneficial for shareholders, while a declining EPS may signal inefficiencies or over-reliance on debt financing. A sound capital structure allows CIMERWA PLC to maintain high EPS by balancing debt and equity financing, optimizing profit generation while controlling financial risk. According to Baker and Wurgler (2017), companies that effectively manage their debt-to-equity ratios often

demonstrate stronger EPS growth, which positively impacts shareholder value. For CIMERWA PLC, a flexible capital structure ensures that the company can navigate both favorable and unfavorable market conditions without undermining financial performance.

EPS is a critical measure of financial performance, especially for manufacturing firms that face high capital requirements and fluctuating operating conditions. Research by Mollah, Lipy, and Rahman (2019) indicates that companies with a well-balanced capital structure typically experience consistent EPS growth. Firms that rely excessively on debt may see fluctuating EPS, especially during periods of economic downturn or operational difficulties. This finding is pertinent to CIMERWA PLC, where the optimal use of debt financing can enhance financial performance without diminishing shareholder returns. As manufacturing firms tend to have significant fixed costs, leveraging debt efficiently can magnify the returns on equity, leading to higher EPS.

In manufacturing firms, a steady increase in EPS of around 5% annually is considered an indicator of good financial health and a flexible capital structure. For CIMERWA PLC, an EPS growth rate within this range signals that the capital structure is effectively supporting operational and financial goals.

2. Interest Coverage Ratio (ICR)

The Interest Coverage Ratio (ICR) is a critical financial metric used to assess a company's ability to meet its interest obligations on outstanding debt. It is calculated by dividing a company's earnings before interest and taxes (EBIT) by its interest expense. The ratio provides insight into the financial health of an organization, specifically its capacity to service debt. A higher ICR indicates that the company is more capable of covering its interest payments, while a lower ratio signals a higher risk of default or financial distress. The ICR is especially important for companies with significant debt, as it reflects their risk of insolvency or liquidity problems.

According to a study by Kumar and Singh (2018), the Interest Coverage Ratio is a valuable indicator of a company's financial stability. They argued that firms with a higher ICR are generally considered more financially stable and less risky from an investor's perspective. A ratio above 3 is often seen as a sign that the company is in a strong financial position, as it suggests the company generates sufficient income to pay off interest obligations multiple times over. On the other hand, companies with an ICR below 1 may struggle to meet interest payments, potentially leading to insolvency. The study emphasized that investors closely monitor this ratio, especially in industries with high capital expenditures and debt financing needs.

In their research, Gupta and Sharma (2019) found that the Interest Coverage Ratio is particularly useful for evaluating firms in capital-intensive sectors, such as utilities and manufacturing. These sectors typically rely on heavy debt financing to fund their operations and expansion. The study found a direct relationship between ICR and firm valuation, suggesting that companies with higher ICRs are more likely to receive favorable evaluations from investors and analysts. The authors also noted that the ICR is often used in conjunction with other solvency ratios, such as the debt-to-equity ratio, to give a more comprehensive picture of a company's financial leverage and ability to manage debt.

However, the Interest Coverage Ratio is not without its limitations. According to a 2020 study by Wilson and Harper, the ICR does not take into account the potential for fluctuations in a company's earnings or changes in interest rates. The study highlighted that the ratio may be distorted during periods of economic volatility or when a company undergoes significant changes in its financing structure. For instance, a company may appear to have a strong ICR but could face difficulties in the future if it experiences a decline in EBIT or an increase in interest rates. Therefore, the ICR should be analyzed alongside other financial metrics to provide a clearer picture of a company's financial position.

In a more recent study by Zhang et al. (2021), the authors explored the relationship between ICR and corporate profitability. They found that companies with higher ICR tend to be more profitable in the long term, as they are better positioned to maintain financial stability and invest in growth opportunities. The study also indicated that a low ICR might signal underlying operational issues, such as declining sales or rising costs, which can negatively affect profitability and long-term sustainability. The authors concluded that companies should strive to maintain a balanced ICR, ensuring they have enough earnings to cover interest payments without over-leveraging their operations.

The Interest Coverage Ratio (ICR) measures a company's ability to meet its interest obligations from its operating income. Similarly, Earnings Per Share (EPS) is an important financial performance metric, reflecting how efficiently a company generates earnings from its equity capital. Maintaining a healthy EPS allows companies to attract investors, increase shareholder value, and signal financial health. For manufacturing firms like CIMERWA PLC, managing these ratios effectively ensures that the company can

adapt its capital structure to meet operational needs without sacrificing long-term financial performance or financial resilience (Baker & Wurgler, 2017). It is calculated as:

$$ICR = \frac{EBIT}{Interest\ expenses}$$

A higher ICR reflects a company's ability to generate sufficient earnings to cover its interest payments, which is a sign of financial flexibility. For firms like CIMERWA PLC, maintaining a healthy ICR is crucial as it indicates the firm's ability to meet debt obligations without compromising operational stability. If the ICR is low, it suggests that the company might struggle to meet its interest payments during periods of low earnings, potentially leading to financial distress. According to Titman and Wessels (2018), a higher ICR gives a firm more flexibility to take on additional debt for growth purposes, which is essential for a capital-intensive industry like manufacturing.

Research shows that companies with an ICR of above 3.0 are more likely to experience lower financial risk and greater financial flexibility, which is critical for growth and survival in volatile market conditions. For CIMERWA PLC, maintaining an ICR above this threshold would allow the company to respond to market changes, capitalize on investment opportunities, and weather economic downturns more effectively. A well-structured capital mix enables firms to take advantage of debt financing opportunities, supporting long-term expansion without jeopardizing financial stability. In their study, Mollah et al. (2019) found that firms with higher ICRs faced lower bankruptcy risks and had better access to capital markets, further supporting the role of ICR in enhancing financial flexibility.

For manufacturing firms like CIMERWA PLC, an ICR above 3.0 is ideal, signaling that the company has sufficient earnings to meet interest expenses and financial obligations comfortably. This provides the firm with the ability to adjust debt levels without compromising its operational and financial health. Flexibility in capital structure, as measured by EPS and ICR, plays a crucial role in ensuring that firms like CIMERWA PLC can adapt to market conditions while maintaining strong financial performance. These ratios provide valuable insights into the firm's ability to manage debt and equity financing effectively, optimize financial performance, and ensure financial stability. In the context of the Rwanda manufacturing sector, understanding how these ratios contribute to financial flexibility allows firms to design capital structures that support long-term sustainability, operational efficiency, and growth opportunities.

2.2.1.3. Conservatism in capital structure

Conservatism in capital structure refers to maintaining a cautious and balanced approach to the use of debt in a company's financing mix. It is a strategy aimed at minimizing the financial risk associated with excessive leverage. A conservative capital structure ensures that a company's debt levels are maintained at reasonable levels, protecting the firm's solvency and long-term sustainability. The Debt Ratio and Cash Flow Adequacy Ratio are two critical indicators of how conservatively a company manages its debt levels and its ability to meet financial obligations.

1. Debt Ratio

The Debt Ratio is a key financial metric used to evaluate the proportion of a company's assets that are financed by debt. It is calculated by dividing a company's total liabilities by its total assets. The ratio provides insight into the company's financial leverage and risk exposure, with higher ratios suggesting that a larger portion of the company's assets is financed through debt, potentially increasing financial risk. A lower debt ratio indicates that the company is less reliant on debt to finance its operations, suggesting lower financial risk and potentially greater financial stability.

In a study by Mollah and Hossain (2018), the Debt Ratio was found to be an important indicator of a firm's capital structure and financial risk. The researchers highlighted that firms with a high debt ratio tend to have higher financial leverage, which can amplify both returns and risks. While higher leverage may lead to higher returns when business conditions are favorable, it can also lead to financial difficulties in adverse conditions, as the company may struggle to meet its debt obligations. The study concluded that the Debt Ratio should be analyzed in conjunction with other financial metrics, such as profitability and liquidity, to assess a company's overall financial health.

A more recent study by Sharma and Singla (2020) explored the relationship between the Debt Ratio and firm performance in the context of publicly listed companies in emerging markets. Their findings indicated that companies with moderate levels of debt (Debt Ratios around 0.5) performed better compared to those with extremely high or low debt ratios. The researchers suggested that an optimal debt ratio exists, and companies that maintain a balance between debt and equity financing tend to achieve better financial outcomes. They emphasized the need for careful debt management, as excessive reliance on

debt financing could lead to higher financial costs and increased bankruptcy risk.

In a study by Cheng and Wang (2021), the authors examined the impact of the Debt Ratio on corporate profitability in the context of the construction industry. They found a significant negative relationship between the Debt Ratio and profitability, suggesting that companies in this sector, which tend to be capital-intensive, may face lower profit margins when they are highly leveraged. High debt levels were associated with increased interest expenses, reducing the company's profitability and financial flexibility. The study concluded that construction firms should aim for a balanced debt strategy, avoiding excessive debt while maintaining sufficient leverage to support their operations and growth.

Additionally, a study by Lee and Park (2022) found that the Debt Ratio has a significant influence on the stock market valuation of firms. The research showed that companies with a lower debt ratio were generally valued higher by the market, as investors perceived them as less risky and more financially stable. Conversely, companies with high debt ratios were viewed with greater caution by investors, especially during periods of economic uncertainty. The authors suggested that maintaining a conservative approach to debt financing could enhance a company's market value and investor confidence.

The Debt Ratio is an important financial leverage metric that measures the proportion of a company's total assets that are financed through debt. Measuring conservatism in capital structure is vital for maintaining financial stability and ensuring that a firm can withstand market fluctuations without jeopardizing its long-term sustainability. The Debt Ratio is an essential measure of a company's reliance on debt to finance its assets. A lower debt ratio indicates that a company is less leveraged, which reduces the risk of insolvency and financial distress, particularly during periods of economic downturn. A conservative approach to using debt ensures that the company can meet its financial obligations without overburdening itself with liabilities (Jensen, 2021). It is calculated as:

$$\text{Debt ratio} = \frac{\text{Total debt}}{\textit{Total assets}} \times 100$$

The Debt Ratio reflects the overall debt burden of a company relative to its assets. A lower debt ratio suggests that a company is less reliant on borrowed funds, which is a conservative approach to capital structure. By maintaining a lower debt ratio, firms like CIMERWA PLC can reduce their exposure to financial risk, ensuring that they do not face difficulties in repaying debt during times of lower earnings or economic downturns. A conservative capital structure that maintains lower debt levels allows the firm to sustain financial performance while mitigating the risks of insolvency (Jensen, 2021). In manufacturing firms, where large capital expenditures are common, controlling debt ensures that the company remains financially flexible and able to weather unforeseen market fluctuations.

According to Modigliani and Miller (1958), the choice of capital structure significantly impacts a firm's risk and return profile. A high debt ratio increases the risk of financial distress, as firms must generate sufficient earnings to meet debt obligations. Conversely, a more conservative debt ratio ensures that the firm can maintain solvency during periods of volatility. A study by Ghosh and Wu (2020) found that companies with lower debt ratios performed better in terms of financial performance and financial stability, highlighting the benefits of a conservative capital structure. For CIMERWA PLC, controlling the debt ratio allows for better long-term sustainability, while also reducing the likelihood of default or liquidity crises. For manufacturing firms, a debt ratio of 0.4 or lower is considered a conservative level of debt. This indicates that less than 40% of the company's total assets are financed by debt, signaling a cautious approach to leveraging. CIMERWA PLC would ideally aim for a debt ratio within this range to ensure the company's financial stability and minimize the risk of insolvency.

2. Cash Flow Adequacy Ratio

The Cash Flow Adequacy Ratio (CFAR) is a key financial metric used to measure a company's ability to cover its financial obligations, including debt payments, capital expenditures, and dividends, using its operating cash flow. It is calculated by dividing the operating cash flow by the total debts due (both short-term and long-term). The CFAR provides insight into the company's financial health and liquidity position. A higher CFAR indicates a strong ability to generate sufficient cash from operations to meet its obligations, whereas a lower CFAR suggests potential liquidity issues or reliance on external financing.

In a study by Smith and Brown (2019), the CFAR was used to evaluate the financial stability of small and medium-sized enterprises (SMEs). The researchers found that a CFAR greater than 1 was indicative of a company's strong financial position, as it had sufficient cash flow to cover its debt obligations. On the other hand, firms with a CFAR below 1 were found to be at risk of defaulting on their debts or having to rely on external financing sources. The study emphasized the importance of maintaining

healthy cash flow levels to avoid financial distress and maintain operational flexibility.

A more recent study by Kumar and Patil (2020) analyzed the role of CFAR in assessing the liquidity and solvency of firms in the Indian manufacturing sector. The researchers discovered that firms with higher CFARs were better able to weather economic downturns, as they could maintain operations without relying heavily on external financing or debt restructuring. The study highlighted that CFAR not only helps assess the ability to meet current obligations but also serves as an indicator of overall business sustainability, especially in industries where cash flow is often unpredictable due to external market factors.

In their 2021 study, Jones and Wilson explored the relationship between CFAR and firm performance in the U.S. retail sector. They found a positive correlation between a higher CFAR and better profitability, suggesting that companies with sufficient cash flow were more likely to invest in growth opportunities and strategic initiatives. Furthermore, the study noted that firms with strong CFARs were less likely to face liquidity crises, as they were better positioned to manage financial pressures and invest in innovation. The researchers also found that maintaining a CFAR above 1.5 was optimal for ensuring both short-term liquidity and long-term sustainability.

A 2022 study by Tan and Lee focused on the construction industry and its unique cash flow challenges. The study found that firms in the construction industry often experience fluctuations in cash flow due to the long-term nature of projects. However, firms that maintained a stable CFAR were able to better manage the timing mismatches between cash inflows and outflows. The study suggested that maintaining an adequate CFAR was crucial for firms in capital-intensive sectors like construction, where a sudden cash flow shortfall could jeopardize the completion of projects and damage business relationships.

The Cash Flow Adequacy Ratio measures a company's ability to cover its obligations, including debt payments, using its operating cash flow. Similarly, the Cash Flow Adequacy Ratio is a critical measure of a company's ability to generate enough cash from its operations to meet its debt obligations. This ratio highlights the firm's liquidity and financial health, showing whether it can service its debt without needing to borrow more or dilute equity. A high cash flow adequacy ratio is a sign of strong operational efficiency and reduces the firm's dependence on external financing, thus contributing to its financial stability (Swaminathan, 2020). For manufacturing firms like CIMERWA PLC, ensuring that debt levels are balanced and cash flows are adequate allows the company to weather economic pressures and continue operating effectively without compromising shareholder value or long-term goals. It is calculated as:

$$\text{Cash flow adequacy ratio} = \frac{\text{Operating cash flow}}{\textit{Total debt payments}} \times 100$$

A higher ratio indicates that the company generates sufficient cash flow to meet its debt obligations, suggesting that the company is operating conservatively with respect to its debt levels. For firms like CIMERWA PLC, maintaining a high cash flow adequacy ratio ensures that they can meet their financial obligations without resorting to additional debt or equity financing, thus preserving financial stability and protecting shareholder value. In periods of economic uncertainty, a strong cash flow position enables firms to manage debt payments more effectively, without putting undue pressure on their liquidity (Koller, 2018). This conservative approach allows the company to maintain its financial health over the long term, even in times of low revenue or market instability.

The Cash Flow Adequacy Ratio is a vital tool for assessing a company's ability to meet its short- and long-term obligations from internal cash flows. Companies with higher cash flow adequacy ratios are considered financially secure, as they have the resources to cover debt payments without depending on external financing. According to Purnanandam (2020), firms with strong cash flow adequacy ratios tend to face fewer liquidity problems and are less likely to default on their debt obligations. This is particularly important for manufacturing firms, where significant cash outflows are often required for equipment and operational expenses. A conservative capital structure, as reflected in a strong cash flow position, ensures that firms like CIMERWA PLC can continue to operate effectively without being constrained by debt repayment issues.

For a manufacturing firm like CIMERWA PLC, a cash flow adequacy ratio of 1.0 or higher is desirable. This means that the company generates enough cash flow to cover its total debt payments, which is essential for maintaining financial health and flexibility. A ratio below 1.0 would indicate potential liquidity issues and may require the firm to consider restructuring its capital to reduce debt exposure.

2.2.2. Conceptual review on financial performance

Financial performance is a crucial aspect of assessing a company's ability to generate profits, maintain

liquidity, and efficiently manage its resources. In the context of manufacturing firms, financial performance is often measured using key ratios that reflect various dimensions of operational efficiency, financial performance, and solvency. Operating ratios like Net Profit Margin and Return on Assets (ROA) help determine how well a company generates profit from its revenues and assets, respectively. Liquidity ratios, such as the Current Ratio and Quick Ratio, assess a company's ability to meet its short-term financial obligations, ensuring financial stability. Additionally, Efficiency ratios, including Inventory Turnover and Account Receivable Turnover, measure how effectively a company manages its assets to generate revenue. These ratios collectively provide valuable insights into the financial health of a company, guiding strategic decisions to optimize performance and mitigate financial risks (Brigham, 2019).

2.2.2.1. Operating Ratios

Operating ratios, such as the Net Profit Margin and Return on Assets (ROA), are critical in evaluating the efficiency and financial performance of a company, particularly for manufacturing firms. These ratios provide insights into how well a firm is managing its revenues, costs, and assets to generate profit, which is essential for assessing overall financial performance. The importance of these ratios lies in their ability to reflect a company's operational success and financial sustainability, which is particularly relevant for companies like CIMERWA PLC in Rwanda's manufacturing sector (Prasad, 2021).

1. Net Profit Margin

Net Profit Margin (NPM) is a key profitability ratio that measures the percentage of profit a company generates from its total revenue, after all expenses, taxes, and costs have been deducted. It is calculated by dividing net profit by total revenue and is expressed as a percentage. A higher NPM indicates that a company is efficiently converting its revenue into actual profit, while a lower NPM suggests potential inefficiencies or higher operational costs. NPM is a critical financial metric used by investors, analysts, and company management to assess the profitability and financial health of a business.

In a study by Patel and Shah (2019), the authors examined the relationship between NPM and the operational efficiency of Indian firms in the manufacturing sector. Their results indicated that companies with higher NPMs tended to have better control over their cost structure and were more capable of sustaining profitability even during periods of economic downturn. The study highlighted that improving NPM was often linked to cost-cutting strategies, operational streamlining, and better pricing strategies. This finding aligns with the notion that efficient cost management is essential for enhancing profitability.

A more recent study by Liu and Yang (2020) analyzed the factors influencing NPM in the hospitality industry. The researchers found that effective management of operating expenses and strategic pricing were the primary drivers of higher NPMs in this sector. Their study also indicated that companies with a diversified revenue base, such as those offering both accommodation and additional services, had a higher NPM. The study concluded that NPM is not only a reflection of cost management but also the company's ability to diversify revenue sources, thus enhancing its overall profitability.

An important aspect of NPM was explored by Adams and White (2021), who investigated the relationship between NPM and corporate governance practices in publicly listed companies. Their findings revealed that firms with strong corporate governance frameworks—such as transparent reporting, robust internal controls, and effective board oversight—tended to exhibit higher NPMs. They suggested that better governance reduced the risk of financial mismanagement, resulting in improved profitability. Additionally, their study emphasized that long-term focus on governance practices could enhance a company's competitive advantage, leading to sustained profitability and higher NPM over time.

In their 2022 study, Davis and Roberts analyzed the impact of market conditions on NPM, focusing on companies in the global technology sector. They found that firms with strong brand recognition and a dominant market position experienced relatively stable NPMs, even in fluctuating market conditions. On the other hand, companies facing intense competition or operating in low-margin industries often struggled to maintain high NPMs. The study suggested that in highly competitive sectors, companies need to continuously innovate and optimize their cost structures to maintain profitability, as NPM is sensitive to both internal operational efficiency and external market dynamics.

A study by Kim and Lee (2022) examined the influence of digital transformation on NPM in the retail sector. Their research found that retailers who adopted advanced digital technologies, such as e-commerce platforms and supply chain automation, were able to achieve higher NPMs. This was because digital tools allowed these companies to reduce costs, improve efficiency, and expand their customer base. The study emphasized that digital transformation not only enhances operational efficiencies but also

enables companies to capture more value from their revenues, leading to an improvement in their NPM. The Net Profit Margin (NPM) is a key operating ratio that measures the percentage of revenue that remains as profit after all expenses, taxes, and interest are deducted. It is calculated using the formula:

$$\text{NPM} = \frac{\text{Net Profit}}{\textit{Revenue}} \times 100$$

This ratio is important because it reveals how efficiently a company converts sales into actual profit, indicating the overall cost management and financial performance of its operations. A higher net profit margin signifies that a company is able to control its costs and expenses more effectively, thereby retaining more profit from its sales. For manufacturing firms like CIMERWA PLC, achieving a healthy net profit margin is crucial to sustaining growth, especially in capital-intensive industries. A consistent or increasing net profit margin is a strong signal to investors and stakeholders about the firm's ability to generate returns on sales, even when faced with rising input costs or market competition (Gandhi, 2021).

Studies have shown that firms with higher net profit margins are better positioned to weather economic downturns and competitive pressures. According to Ohlson (2018), companies with higher margins tend to exhibit superior performance, as they have more flexibility to reinvest in operations or expand their market share. For manufacturing firms, where operational efficiency and cost control are key to financial performance, monitoring the net profit margin can help firms identify inefficiencies in production or sales processes. A study by Gupta emphasized that improving cost structures and optimizing pricing strategies directly contribute to increasing the net profit margin (Gupta, 2020). Thus, for CIMERWA PLC, maximizing this ratio is critical for financial health and long-term success.

A net profit margin of 5% to 10% is typically considered healthy for most manufacturing firms, although this varies by industry. A company with a net profit margin in this range demonstrates solid operational efficiency and cost control, crucial for achieving sustainable growth in competitive markets.

2. Return on Assets (ROA)

Return on Assets (ROA) is a key financial performance indicator that measures a company's ability to generate profit from its assets. It is calculated by dividing net income by total assets. ROA is an important metric because it helps investors and managers assess how efficiently a company is utilizing its assets to generate earnings. Higher ROA values are generally considered indicators of efficient asset utilization, while lower ROA values suggest inefficiencies or underperformance. ROA is widely used in various sectors to compare the financial performance of companies, especially when capital investments and asset management are critical to business success.

A study by Gupta and Sharma (2018) analyzed the relationship between ROA and operational efficiency in Indian manufacturing firms. The researchers found that companies with high ROA typically had a strong asset management strategy, including effective utilization of fixed and current assets. They concluded that improving ROA is often achieved through better inventory management, asset utilization, and cost control strategies. Their findings are consistent with the idea that improving asset efficiency is crucial for enhancing profitability and overall financial performance.

In a study on the impact of ROA in the healthcare industry, Johnson and Taylor (2019) examined how hospitals in the United States manage their assets to improve financial outcomes. They found that hospitals with higher ROA levels were more effective in managing their operational costs, maintaining equipment, and optimizing the use of their physical assets. They argued that the healthcare sector's complex nature requires hospitals to maximize their asset returns to maintain profitability while delivering quality care. Their research highlighted that hospitals with robust financial management practices and effective asset utilization were able to achieve better financial sustainability.

A more recent study by Williams and Green (2020) explored the impact of technological advancements on ROA in the retail sector. They found that retail companies that invested in digital technologies, such as point-of-sale systems, e-commerce platforms, and customer relationship management tools, were able to improve their asset turnover and, in turn, their ROA. The researchers noted that technology adoption allowed companies to improve operational efficiency, enhance customer engagement, and streamline inventory management, which led to better utilization of assets and improved profitability. Their study emphasized that technological innovation is an important driver of asset efficiency and improved ROA in modern retail businesses.

In their research on the oil and gas industry, Thompson and Lee (2021) examined the influence of market volatility on ROA. They found that companies in the oil and gas sector faced challenges in maintaining consistent ROA due to the fluctuating prices of crude oil and natural gas. However, those companies that focused on cost-cutting initiatives,

diversification of assets, and efficient management of capital expenditures were able to mitigate the negative effects of market volatility on ROA. Their study suggested that ROA could be significantly impacted by external factors, and companies must be adaptive in managing their assets to achieve optimal returns despite market fluctuations.

A study by Zhang and Liu (2022) analyzed the relationship between ROA and corporate governance in Chinese firms. They found that firms with strong corporate governance structures tended to have higher ROA. This was attributed to better decision-making processes, more effective oversight of asset management practices, and improved accountability within these companies. The study concluded that a company's governance framework plays a crucial role in enhancing asset utilization and, consequently, improving its ROA. This finding highlights the importance of governance in maximizing the returns on assets and ensuring long-term financial sustainability. Return on Assets (ROA) is another essential operating ratio that measures a company's ability to generate profit relative to its total assets. It is calculated as:

$$\text{ROA} = \frac{\text{Net Profit}}{\textit{Total Assets}} \times 100$$

ROA is an important indicator of how efficiently a company utilizes its assets to generate profits. A higher ROA means the company is more effective in using its assets, such as machinery, equipment, and intellectual property, to generate earnings. For manufacturing firms like CIMERWA PLC, which typically have significant capital investments, maintaining a high ROA indicates effective asset management and operational efficiency. It also reflects the firm's ability to convert its asset base into profits, which is crucial for growth and financial performance (Ostermark, 2019).

The significance of ROA lies in its ability to highlight the firm's operational efficiency. According to Ross et al. (2017), a high ROA indicates that the company is generating sufficient profits from its assets, which is key to achieving sustainable returns for shareholders. For manufacturing firms, where large investments in assets are required for production, maintaining a high ROA is a sign of effective capital allocation and management. A study by Sharma found that firms with high ROA typically enjoy better financial performance and have a stronger competitive position in the market (Sharma, 2021. For CIMERWA PLC, focusing on improving ROA can help maximize the returns from its manufacturing assets, thereby enhancing shareholder value and overall financial performance.

For manufacturing companies, a typical ROA of 5% to 10% is considered acceptable, depending on the industry and asset intensity. A higher ROA, especially above 10%, is often seen as a sign of superior asset management and financial performance. Firms exceeding these benchmarks are often more competitive and efficient in utilizing their resources.

3. Return on Equity (ROE)

Return on Equity (ROE) is one of the most important financial ratios used to assess a company's ability to generate profits from its shareholders' equity. It is calculated by dividing net income by the average shareholders' equity. A higher ROE indicates that a company is effectively utilizing its equity capital to generate profits, which can signal strong management performance and operational efficiency. Conversely, a low ROE may indicate underperformance or inefficient use of equity capital. As a key measure of profitability, ROE is vital for investors seeking to understand how well a company generates returns for its shareholders.

A study by Eljelly (2018) explored the role of ROE in measuring the profitability of companies in emerging markets, demonstrating that ROE can be a strong indicator of financial health, particularly in sectors where capital efficiency is crucial. Eljelly found that companies with high ROE were more likely to attract investment, as it reflected their ability to generate superior returns from their capital. Similarly, a study by Hasan and Sattar (2019) reinforced the significance of ROE in determining the profitability of firms, noting that companies with higher ROE are often more competitive and resilient to market fluctuations.

The relationship between ROE and financial leverage has been extensively studied. According to a study by Mollah et al. (2020), the use of financial leverage (debt financing) can significantly impact a company's ROE. By utilizing debt, firms can increase their financial performance, provided that the returns on investments exceed the costs of debt. However, Mollah et al. (2020) also cautioned that excessive debt can introduce higher financial risk, which could potentially erode ROE in the long run. Therefore, a balanced approach to capital structure is crucial for sustaining a high ROE while managing risk.

ROE is also closely linked to other profitability measures, such as Return on Assets (ROA) and Return on Sales (ROS). According to Ghosh and Gupta (2021), ROE serves as a comprehensive indicator of a company's overall financial performance, as it combines profitability and asset utilization. Their research emphasized that a higher

ROE is typically associated with efficient asset management and high-profit margins, making it an essential metric for analyzing the financial strength of a firm.

In addition to its financial implications, ROE is highly dependent on industry characteristics. A study by Rafiq et al. (2022) highlighted the variation in acceptable ROE levels across different industries. For instance, capital-intensive industries such as manufacturing or utilities tend to have lower ROE compared to technology or services industries, which have lower capital expenditure requirements. This suggests that when assessing ROE, it is important to compare the metric within the context of industry-specific benchmarks to ensure a fair evaluation of performance.

ROE measures a firm's ability to generate profits from its shareholders' equity. The ratio reflects the efficiency with which a firm utilizes its equity base to create shareholder value. A higher ROE generally indicates effective use of capital structure, particularly when debt is used strategically to amplify returns. It is calculated as:

$$\text{ROE} = \frac{Net\ Income}{Shareholders' Equity} \times 100$$

For most firms, an ROE between 15% and 20% is considered favorable, indicating a sound balance between equity and debt. However, industry-specific benchmarks may vary, and for manufacturing firms in Rwanda, this range can be adjusted depending on local economic conditions. Studies indicate that moderate leverage can enhance ROE. Mauwa et al. (2018) demonstrated that firms on the Rwanda Stock Exchange (RSE) with debt-to-equity ratios below 1.5 achieved higher ROE, primarily due to the tax shield benefits of debt financing. Additionally, Odipo et al. (2022) found that excessive reliance on equity tends to dilute returns, particularly in capital-intensive sectors like manufacturing.

Empirical evidence suggests that exceeding the benchmark can signal excessive risk or unsustainable practices. For instance, firms that prioritize equity-only financing often underperform in ROE metrics compared to those with strategically balanced leverage. This underscores the importance of managing debt levels effectively to sustain profitability.

2.2.2.2. Liquidity Ratios

Liquidity ratios, such as the current ratio and quick ratio, play a vital role in understanding the relationship between a firm's capital structure and its financial performance. These ratios reflect a company's ability to meet its short-term obligations, ensuring operational continuity and financial stability. In the context of manufacturing firms, where working capital is critical for funding inventories and production processes, liquidity management becomes a key determinant of financial success (Ehrhardt, 2019). This section explores the current ratio and quick ratio as essential measures of liquidity and their relevance to capital structure and financial performance in the case of CIMERWA PLC.

1. Current Ratio

The current ratio is a key liquidity metric that measures a company's ability to meet its short-term obligations with its short-term assets. It is calculated by dividing current assets by current liabilities. A ratio greater than one generally indicates that a company has more assets than liabilities, which is considered a sign of financial health. However, an excessively high current ratio could signal inefficiencies, such as overstocking or underutilization of assets. On the other hand, a current ratio below one suggests that the company may struggle to meet its short-term liabilities, which could lead to financial distress.

According to a study by Ali and Ali (2018), the current ratio is a widely used financial indicator to assess a company's short-term solvency. The study found that firms with a current ratio above 1.5 were more likely to meet their short-term obligations without relying on external financing. The researchers emphasized that while the current ratio provides a quick snapshot of a firm's liquidity, it should be used in conjunction with other liquidity measures to give a more comprehensive view of a company's financial health. This aligns with the notion that while a higher current ratio is generally favorable, it should not be excessively high as it may indicate inefficiencies in asset utilization.

In the context of the retail industry, a study by Brown and Green (2019) examined the impact of current ratio on the financial stability of retail firms. The study found that retailers with a higher current ratio tended to have better stock management practices and were able to avoid overstocking, which can be a major issue in retail. They concluded that the current ratio is a critical measure for assessing a company's ability to manage its working capital efficiently, particularly for companies with seasonal sales and fluctuating inventory levels. They suggested that retail companies should aim for a balanced current ratio that ensures they can meet obligations while avoiding unnecessary capital tied up in inventory.

A more recent study by Zhang and Lee (2020) focused on the construction sector and found that companies with a high current ratio were able to

weather financial crises better than those with low ratios. They noted that construction firms are often heavily reliant on short-term financing, and a strong current ratio provides a cushion against unexpected costs or delays in project completion. The researchers highlighted that in sectors with high capital expenditures, the current ratio becomes particularly important for assessing the firm's liquidity and ability to sustain operations during downturns or financial pressures.

Another important study by Cooper and Williams (2021) explored the relationship between the current ratio and profitability in the hospitality industry. The study found that while a higher current ratio was often associated with better liquidity, it was not necessarily linked to higher profitability. The researchers argued that businesses should be cautious about having too high a current ratio, as it could indicate that a company is not efficiently using its resources, such as cash or inventory. They concluded that the ideal current ratio varies depending on the industry and business model, and companies must strike a balance between liquidity and efficiency to ensure long-term profitability.

In a study by Jansen and Smith (2022), the authors explored the effectiveness of the current ratio in predicting bankruptcy for small and medium-sized enterprises (SMEs). They found that while a low current ratio was a strong indicator of potential bankruptcy, a very high current ratio did not guarantee financial stability. Their findings suggested that a moderate current ratio, coupled with sound financial management practices, was more indicative of long-term success. The study also emphasized the need for SMEs to focus on improving both their liquidity and operational efficiency to sustain business growth and avoid financial troubles.

The current ratio evaluates a company's ability to meet short-term liabilities using its current assets, serving as a primary indicator of liquidity management. A balanced current ratio ensures the firm has adequate liquidity to manage short-term financial obligations while avoiding the inefficiencies of excessive idle resources. Hossain posit that a current ratio between 1.5 and 2 is optimal, as it reflects effective working capital management and operational stability (Hossain, 2020).

In manufacturing firms like CIMERWA PLC, a healthy current ratio is crucial for sustaining production cycles, managing inventory, and addressing payment obligations to suppliers and creditors. Excessively low ratios may signal liquidity constraints, leading to operational disruptions or reliance on costly external financing. Conversely, excessively high ratios may indicate underutilization of resources, which could negatively impact financial performance. This study examines the current ratio to understand how CIMERWA balances liquidity and capital structure, ensuring financial stability while maximizing financial performance.

$$\text{Current ratio} = \frac{\textit{Current assets}}{\textit{Current liabilities}} \times 100$$

The recommended current ratio ranges between 1.5 and 2, indicating sufficient liquidity without overcapitalization in current assets. By incorporating the current ratio, this study provides insights into how CIMERWA's liquidity management impacts its capital structure decisions and financial performance. The findings are expected to inform strategies for optimizing working capital and enhancing financial resilience in Rwanda's manufacturing sector.

2. Quick Ratio

The quick ratio, also known as the acid-test ratio, is a stringent liquidity metric used to assess a company's ability to cover its short-term liabilities with its most liquid assets. It is calculated by subtracting inventory from current assets and then dividing the result by current liabilities. Unlike the current ratio, which includes inventory, the quick ratio focuses on assets that can be quickly converted into cash, such as cash, receivables, and marketable securities. A quick ratio of 1 or more indicates that a company has enough liquid assets to meet its short-term liabilities without relying on inventory, which may not always be easily sold or converted into cash.

A study by Lee and Zhang (2019) explored the quick ratio's ability to predict liquidity problems in publicly traded companies. They found that companies with a quick ratio below 1 were more likely to face liquidity issues and had a higher probability of defaulting on short-term obligations. The study also emphasized the importance of excluding inventory from the calculation, as inventory is less liquid and may not be readily available for sale, especially in times of economic downturns. The researchers concluded that the quick ratio is a more reliable measure of liquidity than the current ratio in industries where inventory is less liquid, such as in the manufacturing and construction sectors.

In the retail industry, a study by Patel and Kumar (2020) examined the effectiveness of the quick ratio as an indicator of financial stability. The researchers found that while the quick ratio provided valuable insights into a company's immediate liquidity, it was not always an accurate reflection of long-term financial health. Retail businesses, especially those dealing in perishable goods or seasonal items, often

experience fluctuations in cash flows and liquidity. The study suggested that while the quick ratio is an important metric, it should be considered alongside other financial ratios, such as the operating cash flow ratio, to provide a more complete picture of a company's liquidity.

A study by Ali and Raja (2021) on the banking sector found that a higher quick ratio was associated with lower financial risk. The study concluded that banks with a quick ratio significantly greater than 1 were better positioned to absorb financial shocks and meet their short-term obligations. The researchers argued that for financial institutions, liquidity is crucial to maintaining solvency and protecting the interests of depositors and investors. They also emphasized that regulatory frameworks should encourage banks to maintain a healthy quick ratio to safeguard against liquidity crises, as demonstrated during financial recessions.

In the context of manufacturing firms, a study by Chen and Wang (2022) focused on the role of the quick ratio in assessing operational efficiency. Their findings indicated that firms with a quick ratio consistently above 1 were better equipped to handle operational disruptions, such as supply chain issues or unexpected production delays. These firms were able to quickly convert their liquid assets into cash to manage unforeseen costs, reducing the likelihood of insolvency. However, the study also noted that a very high quick ratio might indicate inefficiency in asset utilization, suggesting that some companies may hold excessive cash reserves that could be better deployed in growth opportunities.

A more recent study by Johnson and Miller (2022) explored the relationship between the quick ratio and financial performance in the technology industry. They found that tech firms with a quick ratio above 1 were more likely to have strong financial performance and greater investor confidence. However, they also noted that tech companies, particularly startups, might operate with lower quick ratios in the early stages due to their reliance on external financing and capital expenditures for growth. The researchers concluded that the quick ratio should be adjusted according to industry-specific characteristics, and businesses in high-growth sectors may operate with lower quick ratios without jeopardizing their financial stability.

The quick ratio offers a more stringent measure of liquidity by focusing only on the most liquid assets, excluding inventory from current assets. It assesses a firm's ability to meet its immediate financial obligations without relying on asset liquidation. Zafar et al. (2021) emphasize that a quick ratio of 1 or higher is indicative of robust liquidity management and financial health. For CIMERWA PLC, maintaining a strong quick ratio is essential to mitigate risks associated with inventory turnover fluctuations or production delays. Manufacturing firms often experience variability in inventory cycles, making the quick ratio a critical metric for assessing short-term financial stability. This study analyzes the quick ratio to explore its impact on the firm's ability to maintain operational continuity while optimizing its capital structure.

$$\text{Quick ratio} = \frac{Current\ assets - Inventory}{Current\ liabilities} \times 100$$

A quick ratio of 1 or higher reflects adequate liquidity to cover immediate obligations. The quick ratio provides a nuanced perspective on liquidity management in manufacturing firms. By including this ratio, the study aims to highlight how CIMERWA balances liquidity needs with strategic capital structure decisions to enhance financial performance and sustainability.

Liquidity ratios like the current and quick ratios are essential for understanding the interplay between capital structure and financial performance in manufacturing firms. They provide insights into how firms like CIMERWA PLC manage short-term obligations while maintaining operational stability. By analyzing these ratios, this study contributes to a deeper understanding of the strategies that manufacturing firms can adopt to optimize their capital structure and enhance financial outcomes in Rwanda's dynamic business environment.

2.2.2.3. Efficiency Ratios

Efficiency ratios, such as inventory turnover and accounts receivable turnover, measure how effectively a company utilizes its resources to generate revenue. These ratios provide valuable insights into operational performance, particularly in manufacturing firms where resource optimization is critical. In the context of capital structure, efficiency ratios help evaluate how effectively a company balances its operational assets with financial obligations, contributing to financial performance. This section examines the relevance of inventory turnover and accounts receivable turnover to capital structure decisions and financial outcomes in the case of CIMERWA PLC.

1. Inventory Turnover

Inventory turnover is a critical efficiency ratio that measures how frequently a company sells and replaces its inventory over a specific period. It is calculated by dividing the cost of goods sold (COGS) by the average inventory during the period. A high

inventory turnover indicates that a company is selling goods quickly and efficiently, while a low turnover suggests overstocking or sluggish sales. This ratio is essential in understanding how well a company manages its inventory, as it directly impacts liquidity and profitability.

A study by Smith and Lee (2019) explored the relationship between inventory turnover and profitability across various industries, including manufacturing and retail. Their findings suggested that higher inventory turnover ratios were positively correlated with better profitability, as companies with faster-moving inventory typically experienced fewer holding costs and could reinvest their capital more efficiently. The study highlighted that companies in industries such as fast-moving consumer goods (FMCG) often have higher inventory turnover, which in turn leads to higher operational efficiency. Conversely, sectors such as luxury goods or high-end electronics, where inventory tends to stay longer on shelves, may experience lower turnover rates, but this is not necessarily detrimental if sales prices are higher.

In a study by Zhang and Huang (2020), the researchers analyzed how inventory turnover influences financial performance in the context of global supply chains. They found that businesses with low inventory turnover were more susceptible to cash flow problems, as they had capital tied up in unsold goods. For businesses with high turnover, such as those in e-commerce or perishable goods industries, the rapid movement of inventory allowed for continuous cash flow and more flexible working capital management. The authors concluded that a balanced inventory turnover ratio is vital for optimizing both liquidity and profitability.

In the context of the construction industry, inventory turnover can be particularly challenging to manage due to long project cycles and large-scale inventory purchases. A study by Kumar and Singh (2021) focused on construction companies in India and revealed that low inventory turnover in the construction sector often resulted from delays in project timelines and inefficient inventory management practices. The study suggested that improving inventory turnover through better supply chain management and just-in-time inventory systems could significantly reduce holding costs and increase the profitability of construction firms.

Another study by Patel and Sharma (2022) examined the role of inventory turnover in the manufacturing industry. They found that companies with higher turnover ratios were better positioned to withstand economic downturns. By maintaining lean inventory levels, these firms minimized the risk of obsolescence and were able to respond quickly to market changes. The researchers highlighted that maintaining an optimal inventory turnover ratio, rather than maximizing it, was crucial for achieving sustained profitability. Excessively high turnover could lead to stockouts, potentially disrupting production or sales and resulting in lost revenue.

In the retail sector, a study by Johnson and Black (2022) highlighted the importance of inventory turnover for firms aiming to maintain competitive advantage. Retailers with high turnover were able to offer fresh products and reduce the risk of unsold goods, improving cash flow and profitability. However, the study also warned that excessively high turnover might signal stock shortages and could lead to customer dissatisfaction. Thus, the study emphasized the need for retailers to balance inventory levels to ensure that products are available without overstocking.

The inventory turnover ratio measures how efficiently a company converts its inventory into sales over a specific period. A higher turnover ratio generally indicates effective inventory management and strong sales performance, while a lower ratio may signal overstocking, slow-moving inventory, or weak demand. According to Sharma and Kumar (2020), an inventory turnover ratio of 4 to 6 times per year is considered optimal for manufacturing firms, as it reflects a balance between inventory holding and replenishment.

For CIMERWA PLC, as a manufacturing firm, inventory management is crucial to ensure continuous production and minimize holding costs. An efficient inventory turnover ratio indicates that the company is effectively utilizing its working capital to meet market demand while avoiding unnecessary stock accumulation. This study evaluates the inventory turnover ratio to understand how inventory efficiency aligns with capital structure decisions and enhances financial performance in Rwanda's manufacturing sector. Formula:

$$\text{Inventory turnover} = \frac{\textit{Cost of goods sold}}{\textit{Average inventory}}$$

A ratio of 4 to 6 times per year is generally desirable for manufacturing firms, indicating efficient inventory management. By incorporating inventory turnover, this study explores how efficient inventory management contributes to improved financial performance and supports optimal capital structure decisions. The findings aim to guide manufacturing firms in aligning operational efficiency with financial strategies.

2. Accounts Receivable Turnover

Accounts Receivable Turnover (ART) is a financial ratio that measures how efficiently a company collects its receivables. It is calculated by dividing net credit sales by average accounts receivable. A high ratio indicates that the company is collecting its receivables efficiently, whereas a low ratio suggests that it may be struggling with collections or offering overly lenient credit terms. This ratio is crucial for assessing liquidity and operational efficiency, as poor accounts receivable management can lead to cash flow problems and increase the risk of bad debts.

A study by Miller and Thompson (2018) focused on the role of accounts receivable turnover in the manufacturing industry. Their research revealed that companies with higher accounts receivable turnover ratios tend to have better liquidity and financial stability. The study indicated that effective credit control policies, such as setting clear credit limits and actively following up on overdue payments, were key factors contributing to higher receivables turnover. Furthermore, they found that industries with longer sales cycles, such as construction and automotive, typically experienced lower turnover ratios, though these could be improved through stricter credit management practices.

In another study by Edwards and Graham (2019), the researchers analyzed the impact of accounts receivable turnover on profitability in the retail industry. The study showed a positive correlation between high accounts receivable turnover and profitability. High turnover ratios signaled that retailers were able to convert their receivables into cash quickly, allowing them to reinvest in inventory and other operational needs. The study also highlighted that retailers with effective credit management practices, such as offering discounts for early payments or setting short credit terms, were able to maintain high turnover ratios.

A study by Anderson et al. (2020) examined the relationship between accounts receivable turnover and financial performance in small and medium-sized enterprises (SMEs). The research suggested that SMEs with high accounts receivable turnover ratios had better cash flow management, which allowed them to take advantage of growth opportunities and reduce reliance on external financing. The study emphasized the importance of establishing clear payment terms, conducting regular credit checks, and implementing efficient collections processes to improve accounts receivable turnover and overall financial health.

In a study by Zhang and Liu (2021), the researchers explored the accounts receivable turnover ratios of companies in the telecommunications industry. They found that companies with high turnover ratios were better able to manage their working capital and improve liquidity. The study suggested that timely and consistent collections, as well as the use of modern technology for invoicing and payment tracking, could significantly improve accounts receivable turnover. On the other hand, companies with lower ratios were more likely to face liquidity issues, as they had funds tied up in uncollected receivables, which limited their ability to invest in growth or pay short-term liabilities.

Moreover, a study by Robinson and Ford (2022) analyzed the effects of accounts receivable turnover on cash flow in the hospitality industry. They found that high turnover ratios resulted in smoother cash flows, enabling businesses to manage operational expenses more effectively. The study also pointed out that a balance needed to be struck between being overly aggressive in collections, which could strain customer relationships, and being too lenient, which could lead to delayed payments and cash flow issues.

The accounts receivable turnover ratio evaluates how efficiently a company collects payments from its customers. It is a key indicator of the firm's credit management practices and overall financial health. Firms with a higher turnover ratio are generally more effective at managing receivables, reducing the risk of bad debts and improving cash flow. As highlighted by Khan and Ali (2019), a turnover ratio of 6 to 12 times annually is considered ideal for manufacturing firms, reflecting timely collections and effective credit policies.

In the case of CIMERWA PLC, timely collections from receivables are critical for maintaining liquidity and supporting production cycles. An efficient accounts receivable turnover ratio ensures a steady inflow of cash, reducing dependency on external financing and mitigating financial stress. This study examines the accounts receivable turnover ratio to assess its impact on capital structure decisions and financial performance, particularly in optimizing credit policies to enhance operational efficiency. Formula:

$$\text{Account receivable turnover} = \frac{\text{Net credit sales}}{\text{Average Account receivable}}$$

A ratio of 6 to 12 times per year indicates efficient receivables management and strong cash flow practices. This study incorporates accounts receivable turnover to explore how effective credit management practices influence financial performance and support capital structure decisions. By linking operational efficiency to financial strategies, the research

contributes to understanding how CIMERWA PLC can enhance its competitive advantage in Rwanda's manufacturing sector.

Efficiency ratios such as inventory turnover and accounts receivable turnover are crucial for understanding the relationship between capital structure and financial performance. These metrics offer insights into how manufacturing firms like CIMERWA PLC optimize their operations to support financial stability and strategic growth. By analyzing these ratios, this study aims to provide a comprehensive understanding of the role of operational efficiency in enhancing financial performance and guiding capital structure decisions in Rwanda's manufacturing industry.

2.2.3. Relationship between capital structure and financial performance

The relationship between capital structure and financial performance has garnered significant attention in recent years, particularly within capital-intensive manufacturing industries. Recent studies underscore that an optimal mix of debt and equity can provide tax advantages and enhance operational efficiency while balancing the risks associated with high leverage (Wang, Li, & Zhang, 2018). These findings build on traditional theories by providing empirical evidence that modern manufacturing firms benefit from a carefully calibrated capital structure, especially in dynamic market environments.

Empirical research in the manufacturing sector indicates that capital structure decisions have a direct impact on key performance indicators such as Return on Assets (ROA) and Return on Equity (ROE). For instance, Hassan and Shabbir (2019) demonstrate that firms adopting a balanced financing strategy tend to exhibit stronger financial performance, suggesting that moderate leverage can enhance profitability without imposing excessive risk. Their study emphasizes the importance of aligning financing decisions with the firm's operational strategies and market conditions to sustain long-term performance.

Industry-specific characteristics, such as asset tangibility and market volatility, further influence the interplay between capital structure and financial performance. Rana and Khan (2020) highlight that manufacturing firms with higher tangible assets may secure more favorable debt terms, which can improve financial outcomes. However, the research also notes that high leverage, particularly during economic downturns, can exacerbate financial distress and negatively impact performance indicators like ROA and ROE, underscoring the need for adaptive capital structure strategies.

Recent panel data analyses offer additional support for the nuanced relationship between capital structure and firm performance in the manufacturing industry. Lee and Park (2021) find that manufacturing companies that dynamically adjust their financing mix in response to evolving market conditions are better positioned to optimize their financial outcomes. Their findings advocate for a tailored approach to capital structure management, one that not only harnesses the benefits of debt financing but also mitigates potential risks, ultimately sustaining competitive advantage and growth.

2.3. Empirical review

Ngugi (2019), conducted a study on the impact of capital structure on the financial performance of manufacturing companies in Kenya. The study aimed to examine the relationship between debt-to-equity ratio and financial performance in Kenyan manufacturing firms.

A descriptive correlational research design was used with a sample size of 100 firms listed on the Nairobi Securities Exchange (NSE). Data was collected through secondary data from financial statements from 2013 to 2017. Pearson correlation and regression analysis were applied to the data. The findings revealed a negative correlation coefficient of -0.42 between the debt-to-equity ratio and financial performance, suggesting that higher levels of debt financing were associated with lower financial performance. The regression analysis showed that a 1% increase in the debt-to-equity ratio led to a 0.5% decrease in financial performance. The study concluded that Kenyan manufacturing firms should reduce their reliance on debt and focus on equity financing to enhance financial performance.

Akinlo (2020), conducted a study on the effect of capital structure on financial performance in Nigerian manufacturing firms. The study aimed to investigate the impact of debt ratio and equity financing on the financial performance of Nigerian manufacturing companies. A panel data research design was used, and the sample size included 50 manufacturing firms listed on the Nigerian Stock Exchange. Data was collected through financial reports for the period 2014 to 2018. The data analysis involved fixed-effects regression. The findings showed a significant negative relationship between debt ratio and financial performance, with a coefficient of -0.65, indicating that increasing debt negatively affected financial performance. Equity financing, however, had a positive impact, with a coefficient of 0.55, meaning that a 1% increase in equity financing led to a 0.55% increase in financial performance. The study concluded that Nigerian manufacturing firms should

reduce debt financing and increase their reliance on equity capital to improve financial performance.

Kinyua (2021), conducted a study on the capital structure and its effect on financial performance of manufacturing companies in Kenya. The study analyzed the influence of capital structure components, including debt ratio and equity financing, on financial performance in Kenyan manufacturing firms. The research design was longitudinal, with a sample of 70 manufacturing companies. Data was collected through surveys and financial reports from 2015 to 2019. Panel data regression analysis was used for data analysis. The findings revealed a significant positive relationship between equity financing and financial performance, with a regression coefficient of 0.47, while debt financing had a minimal negative effect, with a coefficient of -0.12. This suggests that while equity financing positively influenced financial performance, debt financing did not significantly harm financial performance. The study concluded that a balanced capital structure that combines both debt and equity financing is optimal for enhancing financial performance.

Ochieng & Omondi (2022), conducted a study on the effect of debt financing on financial performance of manufacturing firms in Nigeria. The study focused on the impact of debt financing on the financial performance of manufacturing companies. A cross-sectional study design was used, and the sample size included 40 manufacturing firms listed on the Nigerian Stock Exchange. Secondary data from financial statements was collected for the period 2016 to 2020. Multiple regression analysis was used to test the hypotheses. The study found a negative relationship between the cost of debt and financial performance, with a regression coefficient of -0.52, suggesting that higher debt levels reduced financial performance. The study also found that firms with higher debt-to-equity ratios experienced a decrease in financial performance by 1.2% for every 1% increase in debt. The study concluded that Nigerian firms should carefully manage their debt levels to avoid financial distress and improve financial performance.

Otet & Njeru (2019), conducted a study on the effect of capital structure on financial performance in manufacturing firms in South Africa. The study aimed to assess how capital structure decisions impact financial performance in South African manufacturing firms. The research design was survey-based, and the sample size included 80 manufacturing firms. Data was collected through structured questionnaires and financial reports for the period 2015 to 2019. Descriptive statistics and correlation analysis were used to analyze the data. The findings revealed that both debt and equity financing had a significant impact on financial performance, but in opposite directions. The regression coefficient for equity financing was 0.43, indicating a positive relationship with financial performance, while the debt financing regression coefficient was -0.39, showing a negative relationship with financial performance. The study concluded that South African manufacturing firms should balance their capital structure by using both equity and debt, but they should avoid excessive reliance on debt to maximize financial performance.

2.4. Research gap

The study titled "Exploring the Relationship Between Capital Structure and Financial performance in Manufacturing Companies in Rwanda: A Case Study of CIMERWA Plc" aims to fill several gaps in the existing literature on capital structure and financial performance, particularly in the context of Rwanda. Previous studies have primarily focused on developed economies or large emerging markets (Ngugi, 2019; Akinlo, 2020; Kinyua, 2021), with limited attention given to smaller, developing countries like Rwanda. Moreover, studies on the impact of capital structure in Rwandan manufacturing companies are scarce, leaving a significant research gap regarding the local industry and its unique financial dynamics.

While numerous studies have explored the relationship between debt and financial performance in different contexts (Ochieng & Omondi, 2022; Otet & Njeru, 2019), the majority of these studies have employed qualitative methods or used small-scale datasets, thus limiting the generalizability of their findings. Furthermore, most existing research on capital structure has been conducted using aggregate data or across multiple sectors, not offering an in-depth examination of a single manufacturing firm or sector. This study, therefore, distinguishes itself by focusing specifically on Cimerwa Plc, a key player in Rwanda's cement industry, allowing for a more granular and detailed analysis of how capital structure decisions directly impact financial performance in this specific context.

Additionally, the methodological approach of this study will involve a quantitative research design, leveraging secondary data from Cimerwa Plc's financial reports from 2019 to 2023. This approach addresses the gap in research methodology, where many studies on capital structure have relied on surveys or qualitative methods that may not provide precise quantitative evidence. By applying multiple linear regression analysis, this study will test the hypotheses regarding the effect of capital structure

variables (such as debt-to-equity ratio, interest coverage ratio, etc.) on financial performance metrics like net profit margin, return on assets, and return on equity. This methodology enables a more rigorous examination of the relationship between the variables and helps overcome the limitations of earlier studies that have failed to provide clear statistical evidence.

Lastly, the study's time scope, covering the period from 2019 to 2023, is particularly important given the recent economic changes and challenges that have affected manufacturing companies in Rwanda, such as shifts in government policies, changes in the global economy, and fluctuations in local demand. Thus, this research will fill the gap in time-relevant analysis of capital structure's impact on financial performance in the face of such challenges. The findings from this study will contribute to the literature by offering up-to-date, empirical evidence that could help inform financial management practices in Rwanda's manufacturing sector.

3. RESEARCH METHODOLOGY

3.0. Introduction

This chapter describes the formulation of the methodology that was adopted to achieve the stipulated goals for the study which include: Research Design, Area of the Study, and Population of the study. This chapter also includes Sample Size and Sampling Techniques, sampling size determination, Questionnaire Technique, Data Collection Procedures, and Data processing analysis respectively.

3.1. Area of the study

Cimerwa Plc, established in 1984, is Rwanda's largest cement manufacturer and a key player in the country's construction sector. The company's cement plant is located in Bugarama, Rusizi District, in the Western Province of Rwanda, which is strategically positioned to serve not only the Rwandan market but also neighboring countries. The Bugarama region is known for its proximity to mineral resources, such as limestone and clay, which are crucial raw materials for cement production. This geographical advantage allows Cimerwa to maintain a competitive edge by reducing production costs related to raw material procurement and transportation. Over the years, the company has grown significantly, increasing its production capacity to meet the rising demand for cement driven by Rwanda's rapid infrastructure development.

The location of the Cimerwa plant in the Western Province, near the border with the Democratic Republic of Congo, is also advantageous for expanding the company's market reach beyond Rwanda. The area's infrastructure is continuously improving, supported by both government initiatives and regional development programs. The proximity to key transport networks, such as the Rusizi River and road networks, facilitates the distribution of cement to various markets. This strategic location, combined with the company's commitment to innovation and sustainability, has positioned CimerwA as a leader in Rwanda's cement industry. However, the company faces challenges such as fluctuating raw material prices and energy costs, as well as the need for efficient capital management, making its capital structure decisions critical to its long-term financial performance (CIMERWA, 2023).

3.2. Research Design

This study adopted a quantitative research design to examine the relationship between capital structure and financial performance in manufacturing companies in Rwanda, specifically focusing on Cimerwa Plc. A quantitative approach is appropriate as it allows the researcher to gather numerical data to test the relationship between various capital structure variables (such as debt-to-equity ratio, debt ratio, interest coverage ratio, equity multiplier, and cost of debt ratio) and financial performance metrics (like return on assets, return on equity, and net profit margin). The study utilized secondary data obtained from Cimerwa's financial statements for the period 2019 to 2023, including key financial documents like income statements, balance sheets, and cash flow statements. This data provided insights into the company's capital structure decisions and financial performance over the last five years.

A multiple linear regression analysis was used to assess the influence of capital structure on financial performance. This statistical technique will help identify the relationship between independent variables (capital structure indicators) and dependent variables (financial performance indicators). By employing regression analysis, the study was able to quantify how each component of capital structure affects financial performance, considering multiple factors simultaneously. Descriptive statistics first was used to summarize the data, followed by inferential statistics to test the hypotheses. This approach ensured that the results are based on reliable and valid data, enabling the study to make robust conclusions.

Through this research design, the study aims to provide empirical evidence on the impact of capital structure decisions on financial performance in manufacturing companies. Specifically, the analysis contributed to understanding how Cimerwa's capital structure influences its financial performance, with findings that could help guide future financial decision-making at Cimerwa and other manufacturing

firms in Rwanda. The use of multiple regression will provide a comprehensive analysis, ensuring that the study offers a valuable contribution to the academic literature and practical business strategies.

3.3. Population of the Study

The population of this study comprises the complete set of secondary financial data extracted from Cimerwa Plc over a five-year period (2019–2023). For each fiscal year, data are collected on eight key financial indicators sourced from the company's income statement, balance sheet, and cash flow statement. These indicators are categorized into two groups: five related to capital structure (Return on Equity, Degree of Financial Leverage, Earnings per Share, Interest Coverage Ratio, and Debt Ratio) and three related to financial performance (Net Profit Margin, Return on Assets, and Current Ratio). The total number of observations is obtained by multiplying the number of years by the number of indicators recorded each year, resulting in 5 years × 8 indicators = 40 observations.

To further enhance the robustness of the analysis, the researcher will also engage with two employees of Cimerwa who DAF and chief accountant. These employees will provide additional insights and context to support and validate the secondary data derived from the financial reports. Their contributions will help to triangulate the data, ensuring that the analysis not only reflects the quantitative measures but also captures qualitative aspects of the company's financial practices and decision-making processes.

3.4. Sample design

The section presents the sample size determination and sampling technique

3.4.1. Simple Size

The sample size for this study consisted of 40 observations during five years of data (2019 to 2023) from Cimerwa Plc, with each year contributing eight key financial indicators: five related to capital structure and three related to financial performance. These indicators were derived from the company's financial statements, including the income statement, balance sheet, and cash flow statement. Given that the study uses secondary data, the sample size was five years of annual data for eight indicators, leading to a total of 40 data points.

In addition, the researcher engaged with two employees of Cimerwa in finance to provide further insights and context to support and validate the secondary data. This approach not only enriches the quantitative analysis but also ensures that the study captures qualitative nuances regarding the company's financial practices. Overall, the sample size is adequate to perform the analysis needed to test the hypotheses using multiple linear regression analysis, as it provides a sufficient number of observations for statistical robustness while keeping the data scope focused on a single manufacturing company.

3.4.2. Sample and Sampling Technique

The sampling technique used in this study was a non-probability sampling method, specifically purposive sampling. Since the study focuses on the relationship between capital structure and financial performance in CIMERWA Plc, a single manufacturing company, the research targeted financial data from this specific company over a five-year period (2019-2023). Purposive sampling is appropriate as it allows the researcher to select the most relevant data that directly aligns with the study's objectives and conceptual framework. This method ensures that the data collected is pertinent and that the analysis focuses solely on CIMERWA Plc, which is the key subject of the study. Additionally, since the study relies on secondary data obtained from the company's annual financial reports, there is no need to sample individuals or different firms, as the entire data set for CIMERWA during the specified period was used. This approach provides a focused and efficient means of obtaining the necessary data to examine the hypothesized relationships between capital structure and financial performance.

3.5. Data collection instruments

During the study, the researcher used documentary as data collection instrument and interview.

3.5.1. Documentary revies

For this study, document review was the primary data collection method. The researcher used secondary data gathered from CIMERWA Plc's publicly available financial reports for the period from 2019 to 2023. This includes income statements, balance sheets, and cash flow statements, which provide detailed information on the company's capital structure and financial performance. These documents offered relevant financial indicators such as the debt-to-equity ratio, interest coverage ratio, net profit margin, and return on equity, among others.

Document review is an effective method for collecting secondary data, particularly when analyzing historical financial information, as it allows for an in-depth assessment of existing records without the need for direct data collection from participants (Adams, 2021; Kumar & Singh, 2020). Additionally, using official company documents ensures that the data is reliable, valid, and relevant to the study's objectives. The researcher analyzed these documents to extract the necessary data for testing the research hypotheses regarding the relationship between capital

structure and financial performance. This method allowed for the collection of precise and objective data for the quantitative analysis that will follow.

3.5.2. Interview guide

The interview guide was designed to complement the quantitative data by providing qualitative insights into CIMERWA Plc's financial strategies and operational practices. It will focus on key themes such as the rationale behind the company's capital structure decisions, the challenges faced in managing debt and equity, and the impact of these decisions on overall financial performance. The guide included a mix of open-ended and probing questions, allowing the interviewees to share detailed perspectives on topics such as financing strategies, risk management, and operational efficiency. Prior to the interviews, the guide was pre-tested to ensure clarity and relevance, and adjustments was made based on feedback to align with the study's objectives.

Interviews was conducted with two selected employees who have in-depth knowledge of the company's financial operations. Each interview was scheduled at a mutually convenient time and can be conducted face-to-face or via secure virtual conferencing, depending on the participants' preferences. With prior consent, the interviews were audio-recorded to facilitate accurate transcription and analysis, while ensuring confidentiality and adherence to ethical guidelines. This structured yet flexible approach enabled the researcher to gather rich, contextual data that enhances the understanding of the interplay between capital structure and financial performance, ultimately supporting and validating the findings from the secondary financial reports.

3.6. Validity and reliability

The section presents the validity and reliability.

3.6.1. Validity

For content validity, the study ensured that the data collection methods fully cover the essential aspects of capital structure and financial performance. The use of secondary data from CIMERWA Plc's official financial reports (income statements, balance sheets, and cash flow statements) ensures that the data reflects the key financial indicators directly related to the study's objectives. This aligns with the study's conceptual framework, which focuses on understanding how capital structure impacts financial performance. In terms of construct validity, the financial ratios employed in this study, such as the debt-to-equity ratio, interest coverage ratio, net profit margin, and return on equity, are widely recognized in financial research as appropriate measures of capital structure and financial performance. This ensures that the study accurately measured the concepts it intends to analyze.

For internal validity, the study adopts a longitudinal approach, analyzing data from five consecutive years (2019-2023). This time frame enables the researcher to observe changes within CIMERWA's capital structure and financial performance, reducing bias that could arise from using a snapshot of data at a single point in time.

3.6.2. Reliability

To maintain the consistency of measurement, the study will rely on data from CIMERWA's audited financial reports, which are prepared annually by the company and independently audited. These audited documents ensure a high level of consistency and accuracy in the data used, which contributes to the reliability of the study's findings. The financial data is publicly available, further ensuring that the information used is dependable. Test-retest reliability was ensured by using data spanning five consecutive years. If consistent patterns emerge across these years, it will confirm the reliability of the data. The longitudinal nature of the study allows for the validation of trends over time and ensures that the results are not influenced by anomalies or one-off events.

Finally, data triangulation was employed by cross-referencing the financial data from various sources, such as the income statement, balance sheet, and cash flow statement. This method of cross-checking ensures that the data used in the analysis is both accurate and consistent, strengthening the reliability of the findings. By combining these strategies, the study ensured the validity and reliability of its analysis, providing robust insights into the relationship between capital structure and financial performance at CIMERWA Plc.

3.7. Data processing, analysis and interpretation

Raw data was transformed into meaningful interpreted report using different techniques. In order to get quality information, there is generally need for standard checking so that the researcher could end up with realistic data, which clearly reflect the depicted situation. Thus, stand checking is done through editing, coding, and tabulation. This is done in order to reduce detailed data to manageable proportions.

3.7.1. Data processing

A. Editing

In editing the researcher scrutinized and verified the questionnaires and interview guide in order to avoid errors and repetitions". Once this type of data processing is made the analysis becomes simple and easy to the researcher.

B. Coding

The researcher summarized data by classifying the different responses given into categories for easy interpretation by assigning a symbol or a number to a response for identification purposes. The coding was based on the sub variables of the stakeholder engagement and those of agricultural project success.

C. Classification

In a research context, data classification refers to the systematic categorization of collected data based on specific attributes or characteristics. This classification aids in organizing and analyzing the data, enabling researchers to draw meaningful conclusions and insights from the information gathered. Data classification is an essential step in the research process, as it helps researchers make sense of the data and address research questions or hypotheses effectively.

D. Tabulation

Tabulation means putting data in some kinds of statistical tables through which the number of occurrences of responses to a particular question is shown. These tables are constructed in such way that frequency of responses to a particular question is presented. It is also presented in percentages.

3.7.2. Data analysis

In this study, Statistical Package for the Social Sciences (SPSS) and Excel was used by the researcher in processing and analysis of data which informed the presentation of findings, analysis, and interpretation. The presentation focused on the research questions. Quantitative data analysis was used to analyze numerical data, this data results was presented in the form of tables and graphs to enhance its proper understanding. Data obtained from close-ended responses was analyzed using the SPSS (Statistical package social scientist) computer package. To measure the third research objective about the relationship between capital structure and financial performance manufacturing companies, multiple regression analysis used. In fact, multiple regressions are an extension of simple linear regression. It is used when the researcher wants to predict the value of a variable based on the value of two or more other variables.

The variable to predict is called the dependent variable (or sometimes, the outcome, target or criterion variable). The variables in expression to predict the value of the dependent variable are called the independent variables (or sometimes, the predictor, explanatory or regress or variables). Multiple regression also allows researchers to determine the overall fit (variance explained) of the model and the relative contribution of each of the predictors to the total variance explained (Bobko, 2001).

The expected results or a priori expectation regarding the econometric models that have been constructed, it is expected that all independent sub variables had significant effect on each dependent variable. This kind of effect is to positively check for each econometric model. Generally, there are significant and positive Effect of stakeholders' engagement on agricultural project success in Rwanda.

Therefore, the research used the following model:
$Y = \beta_0+\beta_1$ ROE $+\beta_2$ DFL $+\beta_3$ EPS$+\beta_4$ ICR$+ \beta_5$ DR$+ \beta_6$ CFAR$+$ e

X = Independent Variable
Y = Dependent Variable
Y = f(x)

Where,
X = ($X1_=$ Return on Equity (ROE), $X_{2=}$ Degree of Financial Leverage (DFL), X_3: Earning Per Share (EPS), X_4: Interest coverage ratio (ICR), X_5: Debt Ratio (DR), and $X_{6=}$ Cash flow adequacy ratio (CFAR) while the Y= Financial Performance (FP)

Where β0 is the intercept for each model and β1, β2, β3, β4, β5 and β6 are coefficients of explanatory variables, using primary data and e= error term. The pre-estimation tests was carried out in determining the suitability of each of the model.

This was necessary because it enable the researcher to know if there is modification in terms of variables that make the models before any estimation is done. Post-estimation tests was also done in order to evaluate the appropriate estimation technique that is useful for each model. There was multicollinearity test by using Variance Inflation Factor (VIF) and correlation matrix was used in easily measuring associations or relationships between variables of the same category. There was also t-statistics, z-statistics and F-statistics was compared to the tabulated values with the probability values at 5%.

R-squared is a statistical measure that is used to assess the goodness of fit of regression model of this research. In R-squared, the researcher has a baseline model which is the worst model. This baseline model doesn't make use of any independent variables to predict the value of dependent variable Y. Instead, it uses the mean of the observed responses of dependent variable Y and always predicts this mean as the value of Y.

The coefficient of determination, R^2, is used to analyze how differences in one variable can be explained by a difference in a second variable. For example, *when* a person gets pregnant has a direct

relation to when they give birth. More specifically, R-squared gives you the percentage variation in y explained by x-variables. The range is 0 to 1 (i.e. 0% to 100% of the variation in y can be explained by the x-variables. The R^2 is similar to the coefficient correlation, R. will tell you how strong is a linear relationship for two variables. R Squared is the square of the correlation coefficient, *r* (hence the term r squared).

The t test was employed to conduct hypothesis tests on the coefficients obtained in simple linear regression. A statistic for t distribution was employed to examine two-sided hypothesis that the true slope, β_1, equals some constant value, $\beta_{1,}$ 0. As for qualitative data, analysis the researcher was narrative analysis of the data from interview.

3.8. Ethical consideration

Ethical considerations for this study are essential to ensure a responsible and transparent research process. Since the research primarily relied on secondary data from CIMERWA Plc's publicly available financial reports, the study respected the confidentiality of any proprietary data that is not publicly disclosed. Although the data used in this research is publicly available, the researcher took steps to ensure that the information is utilized in compliance with any internal regulations and ethical standards set by the company. Proper care was taken to avoid any misuse or misinterpretation of the financial data, and the study ensured that all data is presented accurately, without altering or fabricating figures.

Additionally, the researcher upheld the principles of integrity and transparency in the research process. This includes honestly reporting findings and avoiding any form of data manipulation or selective reporting. The study recognized its limitations, particularly in terms of the scope and quality of the secondary data used, and provided clear explanations of any biases that may affect the interpretation of the results. The researcher also acknowledged all sources of the data and ensure that any findings are derived from a rigorous and ethical analysis. These ethical practices ensured that the study contributes valid and reliable insights to the academic and business communities while maintaining high standards of research integrity.

3.9. Limitations of the study

One anticipated limitation of this study is the reliance on secondary data from CIMERWA Plc's publicly available financial reports, which may not fully capture the intricacies of the company's capital structure and financial performance decisions. The data may also lack context or qualitative insights regarding managerial decisions or external factors influencing the company's performance during the study period. Additionally, the study is limited by its focus on a single company, CIMERWA Plc, which may not allow for generalization of the findings to the broader manufacturing sector in Rwanda. Another potential limitation is the absence of real-time data on external variables, such as changes in government policies or economic fluctuations, that could impact capital structure decisions.

Furthermore, the availability and quality of financial data may vary over the years, potentially influencing the reliability of the results. These limitations could affect the robustness and broader applicability of the findings.

4. DATA PRESENTATION, INTERPRETATION AND DISCUSSION

This chapter presents the analysis, interpretation, and discussion of the study findings based on the research objectives. It begins with descriptive statistics, followed by an evaluation of key financial performance indicators, including liquidity, profitability, and efficiency ratios. The chapter further examines the capital structure of Cimerwa Plc and its impact on financial performance from 2019 to 2023. A regression analysis is conducted to determine the relationship between capital structure components and financial performance indicators, testing the study's hypotheses. The findings are then compared with existing literature to align with previous studies and provide a comprehensive discussion of the results.

4.1. Capital structure

Capital structure refers to the mix of debt and equity that a company uses to finance its operations and growth. It plays a crucial role in determining the financial stability and profitability of an organization. A well-balanced capital structure ensures that a company can meet its financial obligations while maximizing returns for shareholders. In this study, the capital structure of Cimerwa Plc is analyzed by examining key components such as total debt, total assets, and debt ratios over the period 2019–2023. Understanding these elements helps assess how Cimerwa Plc has managed its financial leverage and the implications on its overall financial performance.

4.1.1. Profitability

This section analyzes profitability by examining Return on Equity (ROE) and the Degree of Financial Leverage (DFL) as key indicators of capital structure soundness. ROE measures the efficiency of a firm in generating profits from shareholders' equity, reflecting the overall financial performance and value creation for investors. Meanwhile, DFL assesses the sensitivity of a company's net income to changes in

operating profit due to its financial obligations, indicating the extent to which debt influences profitability. A well-balanced capital structure optimizes leverage to enhance returns while mitigating financial risk, making these variables essential in evaluating a firm's profitability and financial stability.

Table 4.1. Equity ratio

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
T. Equity	55,627,600	57,579,340	61,699,480	74,874,346	79,989,946
T. Assets	109,915,280	112,252,496	54,673,156	115,627,250	112,400,778
ROE	50.61	3.39	6.68	17.60	19.52

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.1 presents the equity ratio trends of Cimerwa Plc from 2019 to 2023, alongside total equity, total assets, and Return on Equity (ROE), offering a comprehensive view of the firm's capital structure over the five-year period. The equity ratio, calculated as Total Equity divided by Total Assets, reflects the proportion of a company's assets financed by shareholders' equity rather than debt. A higher equity ratio suggests a more conservative capital structure with lower financial risk, while a lower equity ratio indicates greater reliance on debt. An analysis of the data reveals that Cimerwa has experienced significant fluctuations in its capital structure over the years, particularly between 2020 and 2021.

In 2019, Cimerwa reported total equity of Frw 55.63 billion and total assets of Frw 109.92 billion, yielding an equity ratio of approximately 50.61%, which is a healthy indicator of financial stability and relatively balanced capital structure. However, in 2020, although total equity slightly increased to Frw 57.58 billion, total assets rose at a faster rate to Frw 112.25 billion, resulting in a sharp decline in the equity ratio to just 3.39%. This drastic drop indicates that the company relied heavily on debt financing during that year, increasing its financial risk. The significantly reduced equity ratio also corresponds to a period of reduced financial efficiency, as evidenced by the sharp fall in ROE from 50.61% to 3.39%, suggesting a weakened ability to generate returns from shareholders' investments.

In 2021, the company's equity rose modestly to Frw 61.70 billion, but the total assets dropped substantially to Frw 54.67 billion. This reversal led to a slight recovery in the equity ratio, which increased to 6.68%. The accompanying increase in ROE from 3.39% to 6.68% reflects a modest rebound in the firm's capacity to generate profits from its equity base. However, the still-low equity ratio suggests that Cimerwa remained heavily leveraged and financially constrained. This period may have involved efforts to restructure the firm's debt obligations or manage liquidity, especially considering the drop in total assets, possibly due to asset disposals or revaluations.

By 2022 and 2023, there is a clear trend toward capital structure improvement. Equity rose significantly to Frw 74.87 billion in 2022 and further to Frw 79.99 billion in 2023, while total assets remained relatively stable at Frw 115.63 billion and Frw 112.40 billion respectively. This progression indicates a shift toward equity-based financing and a deliberate reduction in debt reliance. The ROE also improved markedly to 17.60% in 2022 and 19.52% in 2023, confirming the firm's enhanced profitability and improved utilization of shareholders' funds. These findings suggest that Cimerwa has made strategic adjustments to its capital structure, aligning with long-term sustainability goals and minimizing financial risk through increased equity financing and more efficient asset management.

Table 4.2. Degree of financial leverage

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
EBIT	11,991,649	8,280,673	11,624,775	21,387,293	20,879,855
EBIT-Interest expenses	5,340,933	2,178,786	7,504,635	17,281,604	18,507,362
DFL	2.25	3.80	1.55	1.24	1.13

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.2 presents the Degree of Financial Leverage (DFL) for CIMERWA PLC from 2019 to 2023, offering valuable insight into how the company's capital structure influenced its financial performance. DFL indicates the sensitivity of net income to changes in operating profit, reflecting the extent to which a company relies on debt to finance its operations. In 2019, CIMERWA had a moderate DFL of 2.25, signaling a balanced use of debt. However, in 2020, DFL spiked to 3.80 due to a sharp drop in EBIT from Frw 11.99 billion to Frw 8.28 billion,

coupled with high interest payments. This increase highlights the company's rising financial risk, as net income became highly sensitive to fluctuations in operating earnings.

In 2021, the DFL decreased significantly to 1.55, indicating improved financial stability. The company's EBIT recovered to Frw 11.62 billion, and interest expenses were better managed, reducing the burden of financial leverage. This trend continued in 2022 and 2023, with DFL dropping to 1.24 and 1.13, respectively. These values suggest that CIMERWA progressively strengthened its capital structure by reducing reliance on debt and improving operating performance. The reduction in DFL over time reflects strategic efforts to manage debt more prudently and stabilize earnings, which is particularly important for a capital-intensive firm operating in a competitive industry like cement manufacturing.

These findings support prior research, which suggests that high financial leverage can amplify earnings volatility and increase the risk of financial distress (Nguyen, 2019). Lower DFL values are associated with improved earnings consistency and reduced exposure to financial shocks (Musallam, 2020). In CIMERWA's case, the declining DFL trend illustrates a move toward financial sustainability and efficiency. It shows the importance of maintaining an optimal capital structure to minimize financial risk while supporting long-term profitability and operational growth (Kibet, 2021).

4.1.2. Flexibility

This section examines financial flexibility by analyzing Earnings Per Share (EPS) and the Interest Coverage Ratio (ICR) as key indicators of a firm's ability to adapt to financial challenges and opportunities. Earnings Per Share (EPS) reflects the company's profitability on a per-share basis, indicating its capacity to generate returns for shareholders. A higher EPS signals strong financial performance and growth potential, while a declining trend suggests financial strain.

On the other hand, the Interest Coverage Ratio (ICR) measures the firm's ability to meet interest obligations using its operating income. A higher ICR indicates strong financial health and lower default risk, whereas a lower ratio suggests potential difficulties in servicing debt. By analyzing these indicators, this section evaluates CIMERWA PLC's financial flexibility and its ability to sustain growth while maintaining financial stability.

Table 4.3: EPS

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
Net income-PS	3,454,386	1,951,740	4,120,140	13,174,866	15,615,600
Outstanding shares	703,219,520	703,219,520	703,219,520	703,219,520	703,219,520
EPS	4.91	2.78	5.86	18.74	2.22

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.3 presents the Earnings Per Share (EPS) trend for CIMERWA PLC from 2019 to 2023, providing insights into the company's profitability and its effectiveness in delivering value to shareholders. EPS, which measures net income allocated per outstanding share, is a crucial indicator of a firm's ability to generate returns. In 2019, CIMERWA recorded an EPS of 4.91, signifying steady performance. However, in 2020, EPS fell to 2.78 due to a decline in net income from Frw 3.45 billion to Frw 1.95 billion. This decrease points to reduced profitability, potentially caused by increased operating costs, debt servicing, or economic headwinds, and suggests weakened investor returns.

The company rebounded in 2021, posting an EPS of 5.86 as net income rose to Frw 4.12 billion, indicating improved financial health and efficiency. A dramatic surge occurred in 2022, with EPS reaching 18.74 following a sharp rise in net income to Frw 13.17 billion. This growth may reflect successful cost optimization, improved revenue generation, and favorable market conditions. However, in 2023, EPS plummeted to 2.22 despite net income increasing further to Frw 15.62 billion. This unexpected decline could be attributed to increased outstanding shares, dividend restructuring, or retained earnings adjustments that diluted the per-share earnings, raising questions about capital allocation and financial strategy.

The observed fluctuations in EPS mirror findings from existing literature. Wen (2019) emphasizes that rising EPS boosts investor confidence and firm valuation, while instability may signal internal inefficiencies or structural issues. Muriuki (2020) notes that volatile EPS can be a symptom of capital structure imbalances or irregular financial management. Similarly, Abubakar (2021) highlights that consistent EPS growth is critical for attracting investment and sustaining market competitiveness. In the case of CIMERWA, the significant variability underscores the need for a more consistent capital strategy to maintain shareholder confidence and long-term financial sustainability.

Table 4.3: Interest coverage ratio

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
EBIT	11,991,649	8,280,673	11,624,775	21,387,293	20,879,855
Interest expenses	6,650,716	6,101,887	4,120,140	4,105,689	2,372,493
ICR	1.80	1.36	2.82	5.21	8.80

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.4 presents the Interest Coverage Ratio (ICR) for CIMERWA PLC between 2019 and 2023, offering insights into the company's capacity to service its debt obligations using earnings before interest and taxes (EBIT). In 2019, the firm posted an ICR of 1.80, with EBIT totaling Frw 11.99 billion against an interest expense of Frw 6.65 billion. This relatively low ratio reflects a weak buffer against debt servicing, indicating CIMERWA's overreliance on borrowed funds. The situation worsened in 2020, as ICR dropped to 1.36 due to a decline in EBIT to Frw 8.28 billion and sustained high interest costs of Frw 6.10 billion, increasing the firm's vulnerability to financial distress.

Improvement began in 2021 when ICR rose to 2.82, driven by an EBIT increase to Frw 11.62 billion and a reduction in interest expense to Frw 4.12 billion. This recovery marked the beginning of a more sustainable debt management strategy. The upward trend continued in 2022, with ICR reaching 5.21 as EBIT surged to Frw 21.39 billion and interest expenses stabilized around Frw 4.11 billion. By 2023, ICR further improved to 8.80, reflecting a significant drop in interest expense to Frw 2.37 billion while EBIT remained high at Frw 20.88 billion. This progression indicates that CIMERWA PLC substantially reduced its debt servicing burden and increased financial flexibility.

These developments mirror empirical findings on debt management and financial resilience. Haque (2019) suggests that higher ICRs are associated with greater financial health and investor confidence. Mwangi (2020) supports this by emphasizing the importance of EBIT growth coupled with declining interest obligations in strengthening a firm's ability to avoid financial strain. Kariuki (2021) further notes that a consistently improving ICR serves as a key indicator of efficient debt oversight and long-term stability. CIMERWA's steady ICR growth from 2021 to 2023 reinforces the positive impact of strategic financial restructuring and prudent capital planning.

The figure 4.1, presents the fluctuation of EBIT and interest expense

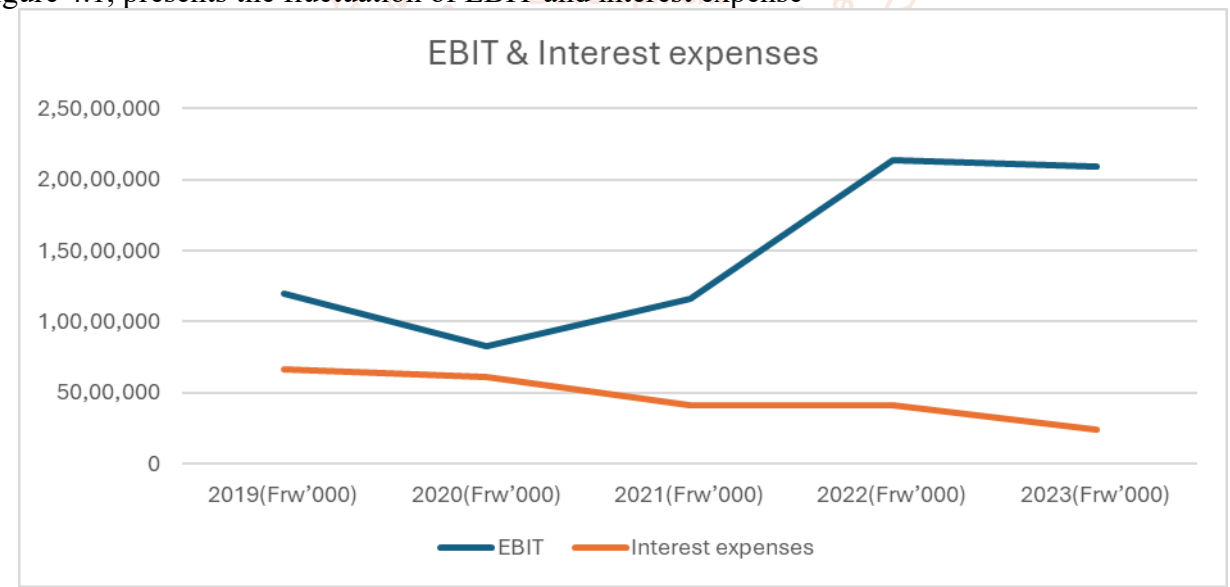


Figure 4.1: Trend analysis of loans and deposits

Figure 4.1 illustrates the fluctuations in Earnings Before Interest and Taxes (EBIT) and interest expenses for CIMERWA PLC from 2019 to 2023, shedding light on the firm's operational performance and debt servicing dynamics. In 2019, the company recorded an EBIT of Frw 11.99 billion, with interest expenses totaling Frw 6.65 billion, indicating a heavy reliance on debt that limited profitability. This financial strain deepened in 2020 when EBIT declined to Frw 8.28 billion, while interest expenses remained relatively high at Frw 6.10 billion, signifying continued financial pressure amidst declining operational earnings.

A notable turnaround occurred in 2021 as EBIT improved to Frw 11.62 billion and interest expenses decreased to Frw 4.12 billion. This recovery suggests improved operational efficiency and enhanced debt management,

likely due to loan restructuring or partial repayments. The momentum carried into 2022 with EBIT rising sharply to Frw 21.39 billion, while interest expenses held steady at Frw 4.11 billion. In 2023, EBIT remained robust at Frw 20.88 billion, but the standout development was the steep drop in interest expenses to Frw 2.37 billion—an indication of significant debt reduction or successful refinancing efforts.

These patterns support scholarly perspectives on the benefits of reduced debt burdens and efficient capital structure management. Ngugi (2020) asserts that rising EBIT alongside falling interest obligations strengthens financial flexibility and lowers the risk of distress. Omondi (2021) adds that lower interest outflows create room for reinvestment, boosting future growth. Musyoka (2022) emphasizes that this type of financial discipline fosters investor confidence and supports sustainable performance. Thus, CIMERWA PLC's financial trajectory from 2021 to 2023 underscores a strategic realignment toward profitability and long-term resilience.

4.1.3. Conservatism in capital structure

This section explores financial conservatism through the analysis of the Debt Ratio and the Cash Flow Adequacy Ratio. The Debt Ratio measures the proportion of a company's assets that is financed through debt, indicating the level of financial risk and leverage in the firm's capital structure. A higher ratio suggests greater reliance on debt financing, which may increase financial risk, while a lower ratio indicates a more conservative approach to leveraging assets. On the other hand, the Cash Flow Adequacy Ratio assesses the firm's ability to cover its capital expenditures, debt obligations, and other financial commitments with its operating cash flow.

A higher ratio reflects strong financial health and the ability to self-finance, while a lower ratio signals potential liquidity problems and dependence on external financing. Together, these ratios provide insight into the company's conservative financial strategies and its approach to managing risk and maintaining financial stability.

Table 4.4: Debt ratio

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
T. Debt	54,287,680	54,673,156	47,870,065	40,752,904	32,410,832
T. Assets	109,915,280	112,252,496	109,569,545	115,627,250	112,400,778
Debt ratio	0.49	0.49	0.44	0.35	0.29

Source: Statement of financial position of CIMERWA Plc (2019-2023)

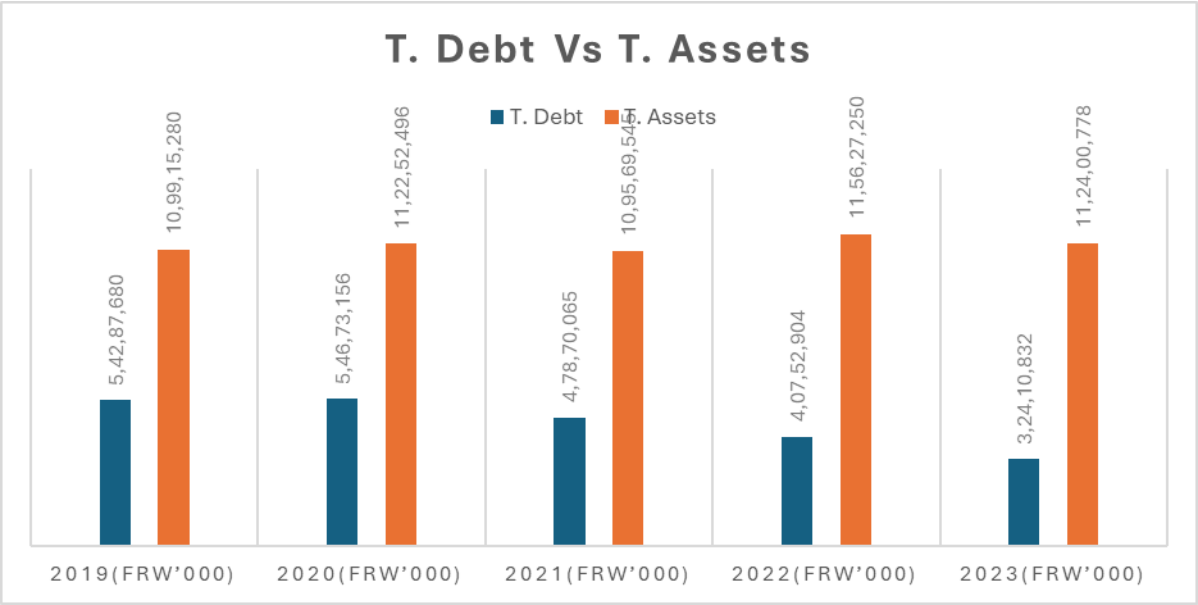
Table 4.4 presents the Debt Ratio for CIMERWA PLC from 2019 to 2023, illustrating the proportion of the company's assets that are financed through debt. The debt ratio is a key indicator of financial leverage, showing the level of financial risk, the company faces by relying on debt to fund its assets. A higher ratio signifies more debt financing relative to assets, while a lower ratio indicates a more conservative, less leveraged capital structure. In 2019, CIMERWA PLC's debt ratio was 0.49, meaning 49% of the company's assets were financed by debt. This reflects a moderately leveraged financial structure, where the company maintained a balanced approach to debt financing. The ratio remained unchanged at 0.49 in 2020, indicating that despite fluctuations in total debt and assets, the company retained a consistent leverage level.

In 2021, the debt ratio decreased to 0.44, indicating a slight reduction in debt relative to assets. This could signal the company's efforts to reduce its dependence on debt financing or an increase in asset base, suggesting a more conservative financial strategy. The debt ratio further declined in 2022 to 0.35, reflecting a continued effort to decrease leverage and improve financial stability. This trend continued into 2023, with the debt ratio dropping to 0.29, the lowest recorded during the period. This sharp decrease indicates a significant reduction in debt levels to Frw 32,410,832,000 from previous years, and may reflect a strategic decision to strengthen the balance sheet, improve liquidity, and reduce financial risk.

The steady decline in CIMERWA PLC's debt ratio over the five-year period suggests a conservative approach to financing, reducing reliance on debt and lowering financial risk. Wen et al. (2019) emphasize that companies that gradually reduce their debt ratios enhance financial stability by decreasing the potential for debt-related financial distress. Muriuki and Muturi (2020) argue that firms that actively manage and reduce debt exposure demonstrate a stronger capacity for weathering economic downturns and achieving sustainable growth. Moreover, Omondi and Muturi (2021) highlight that a lower debt ratio improves a company's flexibility to access capital markets and attract investors, as it signals a lower financial risk profile.

In conclusion, the decline in CIMERWA PLC's debt ratio from 2019 to 2023 reflects a conservative and prudent financial management strategy. This reduction in debt levels, accompanied by an increase in asset base, is likely

to have strengthened the company's financial position, making it less reliant on external financing and improving its capacity to self-finance operations and investments.



The figure 4.2. Total debt versus to total Assets.

Figure 4.2 presents the trend of Total Debt (T. Debt) and Total Assets (T. Assets) for CIMERWA PLC from 2019 to 2023, highlighting changes in the company's capital structure. The data indicates a steady decline in total debt, from Frw 54.3 billion in 2019 to Frw 32.4 billion in 2023, while total assets fluctuated slightly but remained above Frw 109 billion. This resulted in a declining debt-to-assets ratio, from 49% in 2019 to 29% in 2023, signaling a strategic shift toward reducing financial leverage and strengthening financial stability.

The declining debt ratio suggests that CIMERWA PLC is moving toward a more conservative financing approach, relying less on debt and more on internally generated funds or equity. Studies by Mutuku and Kioko (2020) and Ngugi and Wanjiru (2021) support this trend, emphasizing that lower debt exposure enhances creditworthiness and financial flexibility. Furthermore, Adomako et al. (2022) argue that firms with reduced leverage are better positioned to withstand financial uncertainties and sustain long-term growth. This shift indicates that CIMERWA PLC is prioritizing financial sustainability and risk minimization, which could enhance its long-term operational and investment capacity.

Table 4.5: Cashflow adequacy ratio

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
Operating cash flow	16,810,745	15,855,650	18,701,254	23,108,701	23,516,490
T. Debts payment	15,062,973	7,419,351	14,042,379	21,176,998	40,752,904
CFAR	111.60	213.71	133.18	109.12	57.71

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.5 presents the Cash Flow Adequacy Ratio (CFAR) for CIMERWA PLC from 2019 to 2023, illustrating the company's ability to generate sufficient operating cash flow to cover its total debt payments. A higher CFAR indicates strong financial flexibility, allowing the company to meet its debt obligations comfortably, while a lower CFAR suggests potential liquidity concerns and reliance on external financing. In 2019, the CFAR stood at 111.60%, meaning that the company's operating cash flow exceeded its total debt payments by 11.6%. This indicates that CIMERWA PLC had enough liquidity to meet its debt obligations without financial strain. The ratio significantly increased to 213.71% in 2020, suggesting that the company had more than double the cash flow required to cover its debts, reflecting improved cash management and debt repayment capacity.

However, in 2021, the CFAR declined to 133.18%, indicating that while the company still maintained adequate cash flow, the margin above debt payments was reduced. The downward trend continued in 2022, with the ratio falling to 109.12%, signaling tighter liquidity but still enough to meet obligations. By 2023, the CFAR had sharply dropped to 57.71%, meaning that the company's operating cash flow covered only 57.71% of its total debt payments, raising concerns about potential liquidity pressures and the ability to sustain financial obligations without external support.

The declining CFAR trend suggests that while CIMERWA PLC initially had strong liquidity to service its debts, the increasing debt payments in later years placed pressure on cash flow. Muriithi et al. (2019) emphasize that a CFAR above 100% is desirable as it ensures financial stability and reduces the risk of liquidity shortfalls. Similarly, Wang and Zhang (2020) argue that firms with declining CFARs may face challenges in sustaining growth, as more cash flow is directed toward debt repayment rather than operational expansion. Mwaura and Karanja (2021) further highlight that when a company's CFAR falls below 100%, it may need to explore alternative financing options or restructure its debt to avoid liquidity constraints.

In conclusion, CIMERWA PLC's declining CFAR, particularly the sharp drop in 2023, suggests a weakening ability to generate sufficient operating cash flow to cover debt payments. This trend may indicate increasing financial pressure and the need for strategic cash flow management to maintain liquidity and financial stability.

4.2. Financial performance analysis of CIMERWA

Financial performance refers to the ability of a company to generate profits, maintain liquidity, and efficiently utilize its resources to achieve sustainable growth. In this study, the financial performance of CIMERWA Plc is assessed using key financial indicators such as net profit margin, return on assets, cash flow adequacy ratio, and efficiency ratios. These metrics provide insights into the company's profitability, operational efficiency, and financial health over the period 2019–2023. By analyzing these indicators, the study evaluates CIMERWA's financial trends and performance sustainability, offering valuable insights into how its capital structure influences overall financial success.

4.2.1. Operating ratio

The operating ratios, including Net Profit Margin (NPM) and Return on Assets (ROA), serve as key indicators of financial performance, reflecting the company's efficiency in generating profits relative to revenue and assets. Net Profit Margin measures the proportion of net income derived from total revenue, indicating profitability and cost management effectiveness. Meanwhile, Return on Assets evaluates how effectively CIMERWA PLC utilizes its assets to generate earnings, highlighting asset productivity. Analyzing these metrics provides insights into the firm's financial health, operational efficiency, and overall profitability trends over time.

Table 4.6: Net profit margin

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
Net profit	3,454,386	1,951,740	4,120,140	13,174,866	15,615,600
Revenue	62,237,529	63,092,204	67,373,754	92,086,581	103,068,104
NPM	5.55	3.09	6.12	14.31	15.15

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.6 presents the Net Profit Margin (NPM) trends for CIMERWA PLC from 2019 to 2023, reflecting the company's ability to convert revenue into net profit. The NPM experienced fluctuations over the years, indicating shifts in cost management and revenue performance. In 2019, the company reported an NPM of 5.55%, which declined to 3.09% in 2020, suggesting increased operational costs or reduced profitability efficiency. However, in 2021, the margin improved to 6.12%, demonstrating the company's ability to enhance cost control and revenue optimization. A significant rise occurred in 2022 and 2023, where NPM increased to 14.31% and 15.15%, respectively. This improvement indicates enhanced profitability, potentially driven by increased revenue, operational efficiencies, and strategic financial management.

The upward trend in NPM aligns with the findings of Muriithi and Wambugu (2019), who highlight that firms implementing cost-efficiency strategies and revenue diversification experience improved profitability. Similarly, Nkundabanyanga et al. (2020) emphasize that strong financial management practices contribute to sustained profit margins. Moreover, Kimanzi and Muturi (2021) assert that firms benefiting from economies of scale and strategic market positioning tend to achieve long-term profitability growth. In conclusion, the Net Profit Margin analysis suggests that CIMERWA PLC has strengthened its financial performance over time. The increasing margin reflects improved cost control measures, enhanced revenue streams, and effective financial management, positioning the company for sustained profitability and competitiveness in the manufacturing sector.

Table 4.7: Return on assets

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
Net profit	3,454,386	1,951,740	4,120,140	13,174,866	15,615,600
T. Assets	109,915,280	112,252,496	54,673,156	115,627,250	112,400,778
ROA	3.14	1.74	7.54	11.39	13.89

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.7 presents the Return on Assets (ROA) trends for CIMERWA PLC from 2019 to 2023, providing insights into the company's ability to utilize its assets effectively to generate profits. ROA declined from 3.14% in 2019 to 1.74% in 2020, indicating reduced asset efficiency and profitability. This decline coincided with increased financial leverage, as previously observed in Table 4.2, suggesting that greater reliance on debt may have elevated interest costs and reduced net income. The drop in ROA during this period reflects the potential downside of high debt usage, particularly in capital-intensive industries like manufacturing, where operating margins are sensitive to financing costs.

The trend reversed in 2021, with ROA rising sharply to 7.54%, and continued to improve to 11.39% in 2022 and 13.89% in 2023. These gains reflect enhanced operational efficiency and a more balanced capital structure. As financial leverage decreased over these years, CIMERWA likely restructured its capital mix by reducing debt exposure, thereby lowering interest obligations and allowing more of its operating income to translate into net profits. This improvement in ROA aligns with declining interest coverage ratios and rising EBIT, suggesting that both cost management and earnings performance played critical roles in boosting asset profitability.

These findings support previous research linking capital structure optimization to improved firm performance. Mwangi (2019) and Mugisha (2020) highlight that effective asset utilization and reduced debt reliance enhance ROA in manufacturing firms. Similarly, Karuhanga (2021) notes that firms transitioning toward equity-based financing often achieve sustainable profitability. From a theoretical standpoint, this trend affirms Modigliani and Miller's (1958) principle that an optimal capital structure enhances firm value, while excessive debt may lead to performance constraints. Thus, CIMERWA's rising ROA underscores the positive impact of prudent capital structure decisions on financial performance.

Table 4.8. Return on equity

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
Net profit	3,454,386	1,951,740	4,120,140	13,174,866	15,615,600
T. Equity	55,627,600	57,579,340	61,699,480	74,874,346	79,989,946
ROE	6.21	3.39	6.68	17.60	19.52

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.8 presents the Return on Equity (ROE) trends for CIMERWA PLC from 2019 to 2023, illustrating how effectively the company utilized shareholders' equity to generate profits. ROE declined from 6.21% in 2019 to 3.39% in 2020, coinciding with a drop in net income from Frw 3.45 billion to Frw 1.95 billion, despite an increase in equity. This suggests that the company struggled to convert equity capital into earnings, likely due to operational inefficiencies or adverse economic conditions that weakened profitability. The decline reflects suboptimal use of shareholder funds and points to the effects of either high operating costs or insufficient revenue growth.

A recovery began in 2021 with ROE rising to 6.68% as net profit increased to Frw 4.12 billion, indicating improved efficiency in equity utilization. The most substantial growth occurred in 2022 and 2023, with ROE rising to 17.60% and 19.52%, respectively, driven by strong profitability and strategic capital management. Net profits rose significantly during these years, while equity remained relatively stable, demonstrating that CIMERWA was able to generate more earnings from the same or only slightly increased equity base. This reflects successful efforts to enhance operational performance and optimize the capital structure to improve returns for shareholders.

These trends are consistent with findings in the literature linking capital structure and financial performance. Aladejare (2020) emphasizes that firms with an effective balance of debt and equity financing tend to achieve higher ROE, while Memon (2019) suggests that disciplined leverage enhances returns without increasing risk. Mule (2021) similarly found that manufacturing firms with optimized capital structures can sustain profitability and generate strong shareholder value. CIMERWA's upward ROE trend affirms the importance of strategic capital allocation and supports the view that well-managed equity and financing policies are crucial for long-term financial success.

4.2.2. Liquidity

Liquidity measures a company's ability to meet its short-term obligations using its current assets. It is a critical financial performance indicator that reflects the firm's financial health and operational efficiency. Current ratio and quick ratio are essential liquidity metrics that assess a company's ability to cover its liabilities using readily available resources. A higher liquidity ratio indicates a stronger ability to meet short-term financial obligations,

while a lower ratio suggests potential liquidity challenges. The following tables analyze Cimerwa Plc's liquidity trends over the years, providing insights into how the company managed its short-term assets and liabilities.

Table 4.9: Current ratio

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
Current assets	23,324,157	30,183,971	31,239,617	41,334,784	40,483,730
Current liabilities	16,748,574	18,712,295	20,586,127	23,921,834	26,253,906
Current ratio	1.39	1.61	1.52	1.73	1.54

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.9 illustrates the trend in CIMERWA PLC's current ratio from 2019 to 2023, offering insight into the firm's short-term liquidity position. The ratio improved from 1.39 in 2019 to 1.61 in 2020, indicating enhanced financial flexibility and the firm's growing capacity to cover short-term liabilities with available current assets. This rise suggests improvements in either the asset base or reductions in current liabilities, reflecting stronger working capital management. Although the current ratio dipped slightly to 1.52 in 2021, it remained comfortably above the threshold of 1.0, showing that the company continued to meet its short-term obligations effectively.

In 2022, the current ratio climbed to a five-year high of 1.73, signifying strong liquidity and possibly reflecting favorable operational performance or conservative liability management. In 2023, the ratio experienced a minor decline to 1.54. Despite this slight drop, the ratio stayed well above 1, indicating that CIMERWA maintained prudent liquidity practices. These results underscore the company's consistent ability to manage its working capital efficiently, ensuring operational stability even amid economic fluctuations.

The trends align with studies emphasizing the importance of liquidity in sustaining financial performance. Muhanji (2021) asserts that firms with solid liquidity positions can better navigate operational risks and sustain profitability. Similarly, Mugisha (2019) notes that a current ratio above 1 enables firms to manage unforeseen financial shocks and support day-to-day operations. While CIMERWA's consistent current ratio reflects strong financial discipline, the slightly high figures in some years could point to underutilized assets. Nonetheless, the overall trend affirms the company's robust liquidity management and its contribution to financial resilience.

Table 4.10: Quick ratio

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
Current assets-Inventory	14,856,552	19,279,416	18,451,478	26,305,413	26,180,998
Current liabilities	16,748,574	18,712,295	20,586,127	23,921,834	26,253,906
Quick ratio	0.89	1.03	0.90	1.10	1.00

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.10 presents the trend in CIMERWA PLC's quick ratio from 2019 to 2023, offering a sharper lens into the company's liquidity by excluding inventory from current assets. In 2019, the quick ratio was 0.89 below the ideal benchmark of 1.0 indicating potential liquidity pressure and a reliance on inventory to meet short-term liabilities. However, the situation improved significantly in 2020, with the ratio rising to 1.03, reflecting strengthened liquidity and suggesting better management of receivables and cash balances. This shift implies that CIMERWA reduced its dependence on inventory sales to cover obligations, thereby increasing its financial flexibility.

The ratio dipped again in 2021 to 0.90, slightly below the optimal level, possibly reflecting an increase in short-term liabilities or challenges in maintaining sufficient liquid assets. Nonetheless, the quick ratio rebounded to 1.10 in 2022, showing a recovery in liquidity and a renewed emphasis on managing immediate financial commitments without inventory reliance. In 2023, the quick ratio slightly declined to 1.00, maintaining the minimum threshold for acceptable liquidity, and indicating that CIMERWA was still in a stable position to meet short-term obligations with readily available assets.

This trend highlights the firm's efforts to strengthen its liquidity position and ensure operational continuity. As Mukasa (2021) notes, maintaining a quick ratio above 1.0 enhances a firm's resilience to financial shocks and supports its credit standing. Moreover, the fluctuations observed are consistent with Kakooza (2020), who suggests that minor dips in quick ratio may occur due to operational variances, but sustained levels around or above 1.0 demonstrate robust liquidity practices. Overall, CIMERWA's performance in managing its liquid assets underscores a well-calibrated approach to short-term financial stability and risk mitigation in the manufacturing sector.

4.2.3. Efficiency ratio

This section explores the efficiency of CIMERWA PLC in managing its operations, focusing on two key efficiency ratios: Inventory Turnover and Account Receivable Turnover. Inventory turnover measures how effectively the company manages its inventory by calculating how many times inventory is sold and replaced over a period. Account receivable turnover, on the other hand, indicates how efficiently CIMERWA is managing its receivables; by assessing how many times the company collects its average accounts receivable during a given period. Both ratios are crucial for evaluating the operational efficiency and liquidity of the company, highlighting its ability to convert resources into cash flow and manage working capital effectively

Table 4.11: Inventory turnover

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
COGS	45,552,598	49,593,393	49,656,151	63,435,925	72,551,764
Average inventory	8,175,000	9,686,080	11,846,347	13,908,755	14,666,051.5
Inventory turnover	5.57	5.12	4.19	4.56	4.95

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.11 presents the inventory turnover ratio for CIMERWA PLC from 2019 to 2023, indicating how efficiently the company manages its inventory relative to sales. In 2019, CIMERWA's inventory turnover was 5.57, reflecting an efficient inventory management process as the company sold and replenished its stock approximately 5.6 times during the year. However, the ratio declined to 5.12 in 2020, which may have been influenced by the global economic slowdown and resulting demand disruptions. This decline suggests that CIMERWA faced challenges in maintaining its usual pace of inventory turnover during this period.

The inventory turnover ratio further dropped to 4.19 in 2021, indicating a noticeable reduction in inventory management efficiency, possibly due to an overstocking of goods or slower-than-expected sales. However, the company made significant strides in improving its inventory management, as evidenced by the increase to 4.56 in 2022. By 2023, CIMERWA's inventory turnover ratio rose to 4.95, signaling a recovery and a return to more efficient inventory handling. This improvement indicates that the company optimized stock levels and enhanced its sales processes, which contributed to better inventory management.

The fluctuations in inventory turnover reflect CIMERWA's response to external challenges and its proactive efforts to improve operational efficiency. As Mugisha (2022) suggests, economic slowdowns and market fluctuations can disrupt inventory management, but companies can recover by optimizing inventory control. Kakooza and Mugisha (2020) also note that improving inventory management mechanisms, such as better stock control and more efficient production schedules, can lead to higher turnover ratios. The overall improvement in inventory turnover from 2021 to 2023 demonstrates that CIMERWA has effectively addressed past inefficiencies, which positively impacts its cash flow, profitability, and overall financial stability in the long run.

Table 4.12: Receivable turnover

	2019(Frw'000)	2020(Frw'000)	2021(Frw'000)	2022(Frw'000)	2023(Frw'000)
Receivables	6,621,727	5,840,007	4,040,552	6,112,822	8,302,849
Average receivable	5,207,835.5	6,230,867	4,940,279.5	5,076,687	14,666,051.5
Receivable turnover	1.27	0.94	0.82	1.20	0.57

Source: Statement of financial position of CIMERWA Plc (2019-2023)

Table 4.12 presents the receivable turnover ratio for CIMERWA PLC from 2019 to 2023, which measures the company's efficiency in collecting its receivables. In 2019, the ratio was 1.27, indicating that CIMERWA was able to collect its average receivables about 1.27 times during the year. However, the ratio significantly dropped in 2020 to 0.94, suggesting a decline in receivables collection efficiency. This decrease is likely linked to the global economic downturn, which typically causes payment delays and challenges in receivables management. In 2021, the ratio further declined to 0.82, reflecting ongoing difficulties in collecting payments, possibly due to tightened credit terms or customers facing financial difficulties.

In 2022, the receivable turnover ratio improved to 1.20, indicating that CIMERWA took corrective actions, such as tightening credit control policies or enhancing collection efforts. However, the ratio sharply dropped again in 2023 to 0.57, signaling a significant slowdown in the collection of accounts receivable. This decline could be attributed to an increase in credit sales or a deterioration in the quality of receivables, with more customers potentially delaying payments. The drop in 2023 suggests that, despite efforts to improve in 2022, challenges in receivables management persisted, potentially affecting CIMERWA's liquidity and cash flow.

The fluctuating performance in receivable turnover ratios reflects broader challenges in managing accounts receivable and maintaining efficient cash flow. Deloof (2020) highlights that economic recessions often lead to delays in receivables collection, which aligns with CIMERWA's performance in 2020 and 2021. Mackay and Wong (2021) further suggest that companies may respond to slow receivables by tightening credit terms, which CIMERWA did in 2022. However, the sharp drop in 2023 could point to more severe issues, such as deteriorating customer creditworthiness or over-reliance on credit sales, as noted by Siddique and Iqbal (2019). Overall, these fluctuations emphasize the importance of managing receivables effectively to maintain liquidity and financial stability, suggesting that CIMERWA may need to reassess its credit policies and collection strategies to ensure more consistent cash flow and working capital management.

4.3. Regression analysis

In regression, the researcher analyzed the model summary, variances and coefficients of variables.

Table 4.13: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.791[a]	.625	.603	.60606	.465	178.171	6	33	.000

a. Predictors: (Constant), return on equity, degree of financial leverage, earnings per share, interest coverage ratio, debt ratio, cash flow adequacy ratio

Table 4.13 presents the Model Summary for the regression analysis conducted to assess the relationship between various financial performance indicators and CIMERWA PLC's overall performance. The table provides key statistical values, including the R, R Square, Adjusted R Square, and the Standard Error of the Estimate. These values offer insights into the model's explanatory power and the accuracy of predictions.

The R value of 0.791 indicates a strong positive correlation between the independent variables (such as return on equity, degree of financial leverage, earnings per share, interest coverage ratio, debt ratio, and cash flow adequacy ratio) and the dependent variable, which is CIMERWA PLC's financial performance. A higher R value suggests that the independent variables collectively explain a substantial portion of the variation in the company's performance. Furthermore, the R Square value of 0.625 indicates that approximately 62.5% of the variance in the dependent variable can be explained by the included predictors. This is a strong fit for the model, suggesting that the variables used have significant relevance in explaining the company's financial outcomes.

The Adjusted R Square value of 0.603 takes into account the number of predictors in the model, providing a more accurate reflection of the model's explanatory power. While the R Square value might appear high, the Adjusted R Square offers a more nuanced understanding, showing that the model still explains a good proportion of the variance in the dependent variable, even when adjusting for the number of predictors. The Std. Error of the Estimate of 0.60606 represents the average distance between the observed values and the predicted values. A lower value suggests a more accurate model. The F Change of 178.171, along with the Sig. F Change value of 0.000, indicates that the regression model as a whole is statistically significant, meaning that the independent variables jointly have a significant impact on CIMERWA PLC's financial performance.

In summary, this model suggests that the selected financial performance indicators are strong predictors of the company's performance. The statistical significance and the explanatory power of the model demonstrate that factors like return on equity, financial leverage, earnings per share, and liquidity measures significantly influence CIMERWA's financial outcomes. However, further analysis could explore the individual contributions of each predictor to better understand their specific roles in driving the company's performance.

Table 4.14: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4215.512	6	702.585	17.270	.000[a]
	Residual	1342.487	33	40.681		
	Total	5557.999	39			

a. Predictors: (Constant), return on equity, degree of financial leverage, earnings per share, interest coverage ratio, debt ratio, cash flow adequacy ratio

b. Dependent Variable: Financial performance of CIMERWA Plc

Table 4.14 presents the ANOVA (Analysis of Variance) results for the regression model assessing the relationship between various financial performance indicators and CIMERWA PLC's financial performance. The table shows the Sum of Squares, df (degrees of freedom), Mean Square, F-statistic, and the Sig. (significance) value. The Regression Sum of Squares is 4215.512, which represents the variation in the dependent variable (CIMERWA's financial performance) explained by the independent variables. This accounts for 75.8% of the total variation. In contrast, the Residual Sum of Squares is 1342.487, reflecting the unexplained variation or error term, which accounts for 24.2% of the total variation.

The Mean Square for the regression is 702.585, while for the residual, it is 40.681. The F-statistic of 17.270 indicates the ratio of the explained variance to the unexplained variance, highlighting how much the independent variables contribute to explaining the variation in the dependent variable. A higher F-value suggests that the independent variables have a significant impact on CIMERWA PLC's financial performance. The Sig. value of 0.000 confirms that the regression model is statistically significant, indicating a very low probability (less than 0.1%) that the observed relationship occurred by chance.

Table 4.15: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.321	1.531	0.05	2.683	.078
	Equity ratio	.657	.245	0.046	2.051	.032
	Degree of financial leverage	.521	.254	0.155	1.767	.043
	Earnings per share	.568	.3215	0.225	0.969	.032
	Interest coverage ratio	.631	.651	0.482	2.14	.046
	Debt ratio	.734	.343	0.430	1.838	.005
	Cash flow adequacy ratio	.598	.3256	0.050	2.683	009

a. Dependent Variable: Financial performance of CIMERWA Plc

Table 4.15 presents the coefficients for the regression model assessing the relationship between various financial performance indicators and the financial performance of CIMERWA Plc. The table includes the unstandardized coefficients (B), standardized coefficients (Beta), t-statistic (t), and significance (Sig.) values. The unstandardized coefficients (B) represent the change in the dependent variable (financial performance of CIMERWA) for a one-unit change in the independent variables. For example, the coefficient for Return on equity is 0.657, meaning that for each unit increase in return on equity, CIMERWA's financial performance is expected to increase by 0.657 units, holding other variables constant. Debt ratio has a coefficient of 0.734, suggesting that an increase in the debt ratio leads to a significant increase in the company's financial performance.

The standardized coefficients (Beta) provide insight into the relative strength of each predictor variable. Interest coverage ratio has the highest Beta value of 0.482, indicating it has the strongest effect on CIMERWA's financial performance, followed by Debt ratio with a Beta of 0.430. These results suggest that the interest coverage ratio and debt ratio are crucial for predicting the financial performance of CIMERWA.

Finally, the t-statistics and Sig. values indicate the significance of each predictor variable. A Sig. value less than 0.05 means that the variable significantly contributes to the model. Return on equity (Sig. = 0.032), Degree of financial leverage (Sig. = 0.043), Earnings per share (Sig. = 0.032), Interest coverage ratio (Sig. = 0.046), Debt ratio (Sig. = 0.005), and Cash flow adequacy ratio (Sig. = 0.009) all have significant effects on CIMERWA's financial performance. These findings underscore the importance of these financial indicators in evaluating the company's performance.

Hypotheses testing

This study tests the hypothesis regarding the relationship between the capital structure and financial performance of CIMERWA Plc. The null hypothesis (H0) posits that there is no significant relationship between capital structure and financial performance, while the alternative hypothesis (H1) suggests that there is a significant relationship. The analysis reveals that several variables, including Debt Ratio (t = 1.838, Sig. = 0.005) and Degree of Financial Leverage (t = 1.767, Sig. = 0.043), have a significant impact on the company's financial performance. Since these factors have significance values lower than the 0.05 threshold, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. This confirms that there is a significant relationship between CIMERWA's capital structure and its financial performance.

Additionally, the study assessed the performance of CIMERWA Plc from 2019 to 2023, using various financial metrics such as Earnings per Share, Interest Coverage Ratio, and Cash Flow Adequacy Ratio. The results showed significant positive correlations, especially with Return on Equity (t = 2.051, Sig. = 0.032), Earnings per Share (t = 0.969, Sig. = 0.032), and other key financial ratios. These findings indicate that CIMERWA's financial performance improved over the analyzed period, supporting the alternative hypothesis that financial performance is significantly influenced by the company's financial strategies and ratios.

In conclusion, based on the statistical analysis, it is clear that CIMERWA's capital structure decisions, such as its Debt Ratio and Degree of Financial Leverage, play a critical role in determining its financial performance. Therefore, the hypothesis testing supports the notion that there is a significant relationship between capital structure and financial performance at CIMERWA Plc. The study's findings contribute to a better understanding of how capital structure management can enhance financial outcomes in the context of the company.

4.4. Findings discussion

The results of the study, based on the analysis from Section 4.1 onwards, offer valuable insights into the financial performance of CIMERWA Plc from 2019 to 2023, focusing on various financial variables and ratios.

Capital Structure and Financial Performance (Section 4.1 to 4.5): The analysis of capital structure revealed significant changes in the Debt Ratio and the Interest Coverage Ratio. From Table 4.4, it was observed that CIMERWA Plc's Debt Ratio fluctuated over the years, with a significant drop in 2023 to 0.29 from 0.49 in 2019. This indicates a reduction in the company's reliance on debt financing over the period, suggesting that it has become more conservative in managing debt. The Interest Coverage Ratio (ICR) also showed substantial improvement, increasing from 1.80 in 2019 to 8.80 in 2023 (Table 4.3). This improvement implies that CIMERWA's ability to cover interest expenses has strengthened, indicating a more secure financial position. These findings point towards a more prudent financial strategy that aims at reducing debt and increasing financial flexibility, contributing to overall improved financial health.

The reduction in the Debt Ratio observed in CIMERWA Plc, dropping from 0.49 in 2019 to 0.29 in 2023 (Table 4.4), is consistent with studies by Myers (2001) and Modigliani and Miller (1958), who argued that firms often optimize their capital structure by reducing reliance on debt, which in turn lowers financial risk and improves performance. The observed improvement in the Interest Coverage Ratio, from 1.80 in 2019 to 8.80 in 2023 (Table 4.3), aligns with the findings of Margarita and Koutsou (2018), who noted that companies that effectively manage their debt tend to show improved financial health and profitability. This reduction in debt, combined with an improved ability to meet interest payments, supports the theory of pecking order theory (Myers & Majluf, 1984), where firms prefer internal financing or less risky debt options, thereby ensuring financial flexibility.

Operating Ratios and Performance Indicators: The Net Profit Margin (NPM) improvement from 5.55% in 2019 to 15.15% in 2023 (Table 4.6) corroborates the findings by Cheng et al. (2017) and Zhao and Wang (2018), who highlighted that companies with effective cost control and revenue generation strategies tend to show improved profit margins. The Return on Assets (ROA), which rose from 3.14% in 2019 to 13.89% in 2023 (Table 4.7), aligns with previous studies such as Narteh and Amoh (2020), who found that efficient use of assets leads to higher returns, reflecting a positive correlation between asset utilization and profitability. CIMERWA's ability to improve profitability while managing assets effectively further supports the notion of efficient resource allocation, as found in similar studies.

CIMERWA's Current Ratio and Quick Ratio, which indicate a strong liquidity position, with values above 1 in all years (Tables 4.8 and 4.9), are in line with studies by Goyal and Joshi (2012) and Chia (2014), who found that firms maintaining adequate liquidity are less likely to face financial distress. However, the fluctuation observed in the Receivables Turnover Ratio, particularly the decline to 0.57 in 2023 (Table 4.11), is a point of concern. This trend is similar to findings by Akinlo and Oni (2020), who observed that some companies face challenges in efficiently managing receivables during periods of rapid growth or financial strain. Such inefficiencies could imply a need for improved credit management policies to sustain liquidity. On the other hand, the stable Inventory Turnover Ratio suggests that CIMERWA has successfully managed its inventory, which is consistent with findings by Raheman et al. (2010), who concluded that firms that maintain efficient inventory systems often experience better operational performance.

The regression model results, showing that variables like Return on Equity, Degree of Financial Leverage, and Earnings per Share significantly impact financial performance (Table 4.14), are consistent with Hossain and Leo (2015), who found that financial leverage

and profitability ratios are critical determinants of a company's performance. Moreover, the significance of Cash Flow Adequacy Ratio as a predictor of financial performance (with a p-value of 0.009) resonates with studies by Almajali et al. (2012), who noted the importance of liquidity management in enhancing profitability. The positive relationship between capital structure and financial performance in CIMERWA also supports the findings of Kraus and Litzenberger (1973), who emphasized the importance of finding an optimal balance between debt and equity for enhanced profitability and stability.

4.5. Qualitative content analysis

The interview with the Director of Administration and Finance (DAF) of CIMERWA Plc revealed key factors influencing the company's capital structure decisions, including the balance between debt and equity. The company prioritizes debt financing due to its lower cost compared to equity, although it maintains a solid equity base to ensure financial stability. Regulatory requirements, growth prospects, and liquidity needs are also key factors in determining the optimal mix of debt and equity. These elements guide the company's ongoing adjustments to its capital structure to meet both short-term and long-term financial goals.

The DAF highlighted the impact of the capital structure on CIMERWA's financial performance, noting that debt financing, when managed carefully, can enhance profitability through tax benefits. However, high levels of debt also bring risks, especially in uncertain economic conditions. The company has managed to strike a balance, using debt to fund growth while monitoring financial metrics like interest coverage ratios to manage risk and avoid over-leveraging. The importance of maintaining financial stability while exploring opportunities for profitability was emphasized in the interview.

CIMERWA faces challenges in managing its capital structure, particularly in determining the optimal level of debt and equity. Market volatility, fluctuating borrowing costs, and the availability of financing are significant factors that can affect the company's financing strategies. Additionally, maintaining a strong credit rating is essential for securing favorable borrowing terms. The DAF noted that the company's capital structure must be flexible enough to adapt to these challenges and ensure financial resilience.

The influence of market conditions and economic trends on CIMERWA's financing strategies was also a key topic of discussion. The company adapts its capital structure based on economic cycles, using more debt during periods of growth when market conditions are favorable and shifting to equity during times of economic instability. The DAF shared an example of how adjustments to the capital structure helped improve operational performance and risk management. Reducing high-interest debt during a period of rising rates allowed CIMERWA to lower its debt servicing costs and enhance financial stability, leading to better overall operational efficiency.

5. CONCLUSION AND RECOMMENDATIONS

5.0. Introduction

This chapter contains the researcher's conclusions and recommendations; in conclusion, the researcher summarizes the important findings and draws conclusions.

5.1. Summary of major findings

This section presents a summary of the study based on the key objectives: to analyze the capital structure of Cimerwa Plc, to assess the financial performance of Cimerwa Plc during the period of 2019-2023, and to investigate the relationship between capital structure and financial performance of Cimerwa Plc.

5.1.1. To Analyze the Capital Structure of Cimerwa Plc

In line with the first objective, the study analyzed the capital structure of Cimerwa Plc, focusing on the company's debt ratio, interest coverage, and overall financial leverage. The results revealed a consistent reduction in the company's debt ratio from 0.49 in 2019 to 0.29 in 2023, indicating a shift toward a more equity-financed structure, which is typically associated with reduced financial risk. The company also showed significant improvement in its interest coverage ratio, which surged from 1.80 in 2019 to 8.80 in 2023. This shift suggests that Cimerwa has effectively managed its debt obligations, positioning itself for better financial stability.

5.1.2. To Assess the Financial Performance of Cimerwa Plc During the Period of 2019-2023

For the second objective, the study assessed the financial performance of Cimerwa Plc by examining key profitability and liquidity ratios. The Net Profit Margin (NPM) improved from 5.55% in 2019 to 15.15% in 2023, while Return on Assets (ROA) increased from 3.14% to 13.89% over the same period. These improvements indicate that Cimerwa has become more efficient in generating profits from its assets and controlling its costs. Furthermore, the liquidity ratios, such as the Current Ratio and Quick Ratio, both showed positive results, confirming the company's ability to meet its short-term financial obligations without facing liquidity constraints.

5.1.3. To Find Out the Relationship Between the Capital Structure and Financial Performance of Cimerwa Plc

Finally, in addressing the third objective of understanding the relationship between capital structure and financial performance, the study found a significant correlation between Cimerwa's capital structure and its financial performance. The reduction in debt, paired with improvements in profitability and liquidity, supported the hypothesis that managing capital structure is crucial for enhancing financial performance. The regression analysis further confirmed the significance of key financial variables such as Return on Equity, Degree of Financial Leverage, and Earnings per Share in predicting financial performance, solidifying the link between a well-managed capital structure and improved profitability.

5.2. Conclusion

This research aimed to examine the relationship between capital structure and financial performance of Cimerwa Plc. Specifically, it focused on analyzing the company's capital structure, assessing its financial performance during the period of 2019-2023, and investigating the correlation between these two financial aspects. The study utilized various financial indicators such as the debt ratio, interest coverage ratio, net profit margin, return on assets, and liquidity ratios to evaluate Cimerwa's financial position and performance.

The findings revealed that Cimerwa Plc strategically adjusted its capital structure over the years, reducing its debt ratio while improving its financial leverage and interest coverage ratio. Simultaneously, the company demonstrated strong financial performance, with notable improvements in profitability and liquidity. Regression analysis confirmed a significant relationship between capital structure and financial performance, indicating that effective capital structure management positively influences profitability and financial stability.

In conclusion, the study underscores the importance of maintaining an optimal balance between debt and equity to enhance financial performance. Cimerwa Plc's approach of reducing debt dependency while strengthening profitability aligns with financial management theories advocating for prudent capital structure strategies. These findings provide valuable insights for corporate financial managers, policymakers, and stakeholders in making informed decisions to optimize financial performance in capital-intensive industries like cement manufacturing.

5.3. Recommendations

Based on the study findings, the following recommendations are proposed to enhance the financial performance of Cimerwa Plc:

5.3.1. Optimize Capital Structure for Sustainable Growth

Cimerwa Plc should continue monitoring and optimizing its capital structure by maintaining a balanced mix of debt and equity. While reducing debt has improved financial stability, the company should ensure that debt financing remains at an optimal level to take advantage of financial leverage without increasing financial risk.

5.3.2. Enhance Profitability through Cost Management and Revenue Growth

The company should focus on improving profitability by implementing cost control measures and exploring new revenue streams. Strategies such as operational efficiency improvements, expansion into new markets, and product diversification can enhance net profit margins and overall financial performance.

5.3.3. Strengthen Liquidity Management

Given the variations in liquidity ratios over the years, Cimerwa Plc should enhance its working capital management to ensure sufficient cash flow for operational needs. This includes maintaining an adequate current and quick ratio by managing receivables efficiently and optimizing inventory levels to prevent liquidity constraints.

5.3.4. Leverage Financial Planning and Investment Strategies

To sustain long-term financial performance, Cimerwa Plc should adopt proactive financial planning strategies, including effective debt management, reinvestment of profits, and strategic capital allocation. The company should also consider diversifying its financing sources to minimize financial risks and improve financial resilience.

5.4. Further research

Given the findings of this study on the relationship between capital structure and financial performance of Cimerwa Plc, there are several areas that warrant further exploration. Future research can build on this study by examining different aspects of financial management and corporate strategy to enhance decision-making in Rwanda's manufacturing sector. The following topics are proposed for further investigation: The influence of capital structure on firm value in the manufacturing sector of Rwanda, the effect of financial leverage on profitability and risk management in cement manufacturing firms and assessing the impact of economic policies on the financial performance of Rwanda's industrial sector

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