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Examining the Risks Associated with Corporate Borrowing on Business Growth: Evidence from Manufacturing Firms in Lusaka, Zambia

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Abstract

Corporate borrowing is a critical financing strategy for firm growth, yet it exposes organizations to risks that may undermine performance. This study investigates the risks associated with corporate borrowing and their implications for business growth among manufacturing firms in Lusaka, Zambia. Using a mixed-method design, the study surveyed 40 firms and conducted interviews with financial managers. Quantitative analysis employed descriptive statistics and regression models, while qualitative data were analysed thematically. The findings reveal that excessive reliance on short-term borrowing increases liquidity constraints and financial distress, while interest rate volatility and exchange rate fluctuations further erode profitability. Debt overhang was also identified as a barrier to investment in profitable projects. The study concludes that although corporate borrowing can stimulate growth, inadequate financial planning and weak risk management amplify negative outcomes. Recommendations include adopting comprehensive risk assessment frameworks, diversifying financing options, and strengthening governance practices. The study contributes to literature on corporate finance in developing economies by offering evidence from Zambia's manufacturing sector, where research on borrowing risks remains limited.

Keywords: Corporate Borrowing, Debt Financing, Business Growth, Financial Risk, Zambia, Manufacturing Firms

1. Introduction

Every shareholder invests in a company with the dream of making wealth through the company's great financial performance. The capital used in financing a business is made up of funding from owners and funding from lenders. Combining the two sources of funding creates the capital structure of a firm. Capital structure can therefore be defined as a mix of firm's long term debt, short term debt, common equity and preferred equity. This is how a firm funds its whole operations and growth using different sources of financing. This is made up of equity, rights issue, and debt financing, credit market. This chapter establishes the context for an inquiry of how corporate borrowing affects business growth and the risks involved in corporate borrowing. In light of these developments, this chapter provides background information about corporate borrowing by defining the phenomenon and how firms have fared with budget constraints of liquidity. The backdrop is followed by a statement of the issue being investigated, the study's goal, significance, research objectives, and research questions. The description of keywords as they've been employed in the study will serve as the chapter's conclusion.

The question that begs an urgent answer is; How has corporate borrowing provided economic benefits to the growth of the manufacturing sector in Zambia?

1.1 Background

The main aim of every business is profitability and the outcome is as a result of internal and external company actions. Many times, an organization desires certain business outcomes, meaning there are objectives that the company wishes to fulfill. For example, a business may seek to increase its customer retention, improve profits or shareholder value. To create effective desired business outcomes, businesses must define the goal using measurable figures, determine the time frame with due consideration to how the outcome affects both the organization and clients. Depending on the outcomes a business may establish, there is need to implement various strategies for reaching the outcomes. Assessing which processes within the organization mostly affects the business outcomes is how strategies can be employed to meet business goals.

Zambia Association of Manufacturing (ZAM) and its Mandate

The Zambia Association of Manufacturers (ZAM), the apex association of manufacturers was established in 1985 as a business association which represents the interests of the entire manufacturing sector and other related economic and/or production sectors in Zambia. Its mandate is to effectively represent the manufacturing sector and lobby for policy measures that are supportive towards the growth of manufacturing sector in Zambia and its goal is to enhance manufacturing sector contribution to 20% of the GDP by 2030. ZAM plays a crucial role in promoting industrial growth, enhancing competitiveness, and supporting the development of the manufacturing industry across various sectors (ZAM, 2019). ZAM represents a wide range of sectors within the manufacturing industry, including:

- Food and beverages
- Textiles and garments
- Building materials
- Chemicals and pharmaceuticals
- Engineering and metal products
- Agro-processing
- Plastics and packaging

ZAM serves as the voice of the manufacturing industry in Zambia. It advocates for policies that support industrial development, such as favorable tax regimes, improved infrastructure, and supportive regulations. The association engages with the Zambian government, policymakers, and international organizations to promote the interests of manufacturers. The association provides training, capacity building, and advisory services to help manufacturing businesses, particularly small and medium-sized enterprises (SMEs), improve productivity, quality standards, and operational efficiency.

ZAM promotes industrialization as a key pillar for economic growth in Zambia. It supports the expansion of local industries to reduce reliance on imports, increase exports, and create employment opportunities.

The manufacturing sector is critical for Zambia's economic diversification, as it reduces reliance on copper mining and creates broader opportunities for value addition and job creation. MAZ plays a vital role in this process by promoting policies and practices that enhance the sector's contribution to the national economy. Through its efforts, MAZ seeks to strengthen the competitive position of Zambian manufacturers and ensure their sustainability in both domestic and global markets (ZAM, 2019).

Manufacturing sector performance

In 1991, the Zambian industrial sector underwent a comprehensive economic reform programme resulting from the pro-market and liberal policies adopted by Government. The reforms in the Industrial sector were designed to structurally adjust the economy so as to ensure dynamism, efficiency and competitiveness by the private sector. There was a policy shift away from import substitution, protectionism, and heavy public sector involvement towards the promotion of a private sector led, market-oriented economy. Consequently, most state enterprises were privatized.

Since the mid-1990s, the performance of the manufacturing sector has been positive albeit with fluctuations. The growth rate fluctuated mainly because of the performance of the agriculture, forestry, fisheries and quarrying sectors.

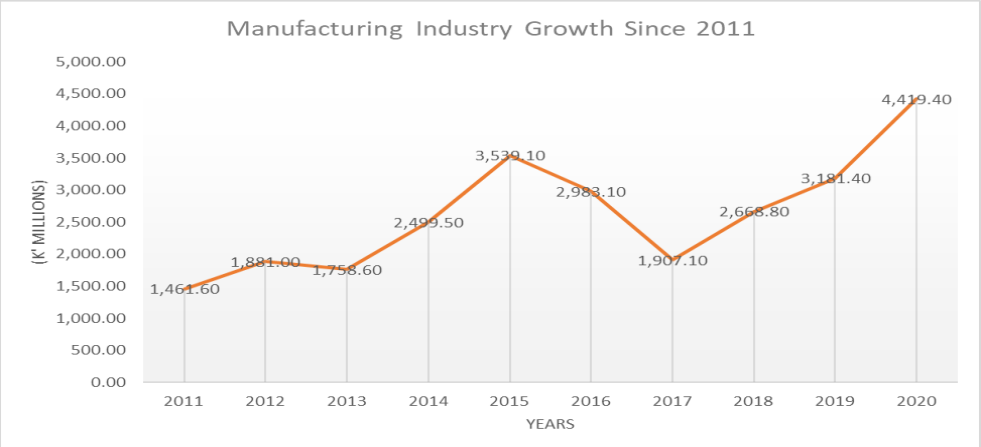

Figure 1: The Manufacturing sector performance from 2011 to 2020

The performance of the manufacturing sector is significantly influenced by the performance of the regional and global economic conditions as well as by that of the national economy as a whole. Just like the rest of the economy since the mid-1990s, the performance of the manufacturing sector was positive though with fluctuations in figure 1 above.

A firm's default risk reflects not only the likelihood that it will have bad luck, but also the risk that the firm's managerial decisions will lead the firm to default. Management risk occurs when the impact of management on firm value is uncertain, and represents an additional source of risk on top of that coming from a firm's assets. Practitioners have long understood the importance of management risk, and regularly characterize it as an important factor affecting a firm's risk. However, the academic literature on the cost of borrowing has mainly focused on macroeconomic risk and firms' asset risk, and has largely ignored management risk. This paper evaluates the extent to which uncertainty about management is a factor that meaningfully affects a firm's cost of borrowing, and ultimately its financial policies.

We identify the effect of management risk on the costs of borrowing using the idea that uncertainty about future managerial decisions rises around executive turnovers, particularly CEO turnovers, and decreases over time as the manager's actions are observed. When a senior manager departs, there is an immediate increase in the uncertainty about who his replacement will be, and also about the impact the new manager will have on firm value. Part of this uncertainty is resolved when the incoming manager's identity is revealed, but substantial uncertainty remains about his ability and the quality of match between him and the firm. If the ex ante expectation of a manager's quality is on average correct, then there should be no systematic change in the market's estimate of an average manager's ability over his tenure in office. What will decline unambiguously, however, is the precision of this estimate, since more observations of his actions will allow the market to learn more about the manager. Therefore, management risk, which arises because of the uncertainty of the manager's value added, should decline with a manager's tenure. If management risk increases the market's assessment of a firm's default probability, then firms' borrowing costs should also decline with tenure.

Emerging market economies increasingly rely on foreign currency debt, leaving borrowing firms exposed to sudden stops and currency depreciations. This column examines the dynamics of corporate foreign currency borrowing in India using new firm-level data. It finds that interest rate differentials are a strong predictor of foreign currency debt issuance, particularly after the Global Crisis. After the 'taper tantrum' of 2013, the Reserve Bank of India introduced new macroprudential policies that were effective at mitigating the riskiest borrowing and reducing the vulnerability of Indian firms.

Non-financial corporations in emerging market economies (EMEs) increasingly rely on corporate borrowing for financing. Since the global crisis of 2008, the amount of dollar-denominated debt of EME corporations has quadrupled. Research has shown that interest rate differentials between EMEs and the US have contributed significantly to this phenomenon (Bruno and Shin 2017). In essence, EME corporations prefer to borrow when there is a 'carry', meaning foreign interest rates are low relative to domestic interest rates. This carry trade borrowing leaves the firms exposed to sudden stops in capital flows and associated currency depreciations (Bruno and Shin 2020). More broadly, the accumulation of external debt on private balance sheets can lead or contribute to currency depreciation spirals and thereby poses risks for EME growth and financial stability (Acharya et al. 2015, Du and Schreger 2017). These include risks to domestic growth from large corporate distress and spillover effects on the domestic financial system.

Attention has therefore naturally turned to policy responses to these risks posed by the build-up of foreign currency debt. Theoretical contributions suggest that prudent macroprudential regulation can mitigate these risks (Acharya and Krishnamurthy 2019, Erten et al. 2020). However, such regulation might have leakages or unintended consequences that undo its intended effects (Ahnert et al. 2020). Ultimately, uncovering the effects of such policies requires empirical analysis.

In a recent paper (Acharya and Vij 2021), we do just that by studying a specific instance of macroprudential regulation targeted at the foreign currency borrowing of non-financial corporations. Our setting is India, which as is typical of EMEs, has seen a sustained increase in dollar debt issued by non-financial corporations. Figure 1 shows the total amount of foreign currency debt outstanding and the Indian rupee/US dollar foreign exchange rate for the period between 2004 and 2019. Although the rupee has steadily depreciated against the dollar, the outstanding stock of dollar debt has steadily increased.

In response to the rise in dollar debt, in 2015 India's central bank, the Reserve Bank of India (RBI), lowered the maximum permitted interest rate at which Indian borrowers could borrow in foreign currency debt markets. This move was in the aftermath of the 'taper tantrum' episode of May-August 2013 in which India faced significant capital outflows and currency depreciation. The aim of reducing these interest rate caps for foreign currency debt was to restrict access to only those firms that could borrow at relatively low interest rates, presumably higher quality and lower risk borrowers, as these borrowers would be less likely to face rollover problems in a sudden stop.

1.2 Statement of the Problem

Zambia's economy has long been heavily dependent on copper mining, which accounts for 70% of the country's exports earnings. While copper mining remains a major contributor to Zambia's economy, over-reliance on this fast-depleting mineral resource has exposed the country to significant economic risks like the unstable copper prices on the international market. Hence, it is more than crucial for the country to embrace economic diversification into other viable sectors like manufacturing (ZAM, 2019).

The benefits that a country can derive from economic diversification have been well documented in various literatures. Therefore, it is more than imperative that best practices and funding sources are used to advance the manufacturing sector development. While there have been studies to assess the effects of corporate borrowing on firms' performance, very limited

studies have looked specifically at the manufacturing sector in Zambia. The recent literature on corporate borrowing suggests that, until now, no tool has been provided to deal with debts in general and its effect on business financial performance. Theories have not fully accommodated the capital structure.

Corporate borrowing can have a substantial impact on organizational performance, influencing profitability, competitiveness and sustainability. However, while corporate borrowing can provide manufacturers with the capital needed for recapitalization, technology upgrades and other investments, it also comes with risks such as interest rate risks, insolvency problems, inflation, exchange rate risks and debt overhang to name a few that can hinder organizational performance. In the existing finance literature, no practical tool has been developed to enable manufacturing companies to determine the best debt financing that will suit their financial performance amidst these risks. Hence, it is essential that a research was conducted to investigate the determinants of corporate borrowing and the risks it poses on the financial performance of the business, in this case, the manufacturing companies in Lusaka. Therefore, this study sought to address this practical gap to assist manufacturing companies in Zambia navigate through the risks of corporate borrowing and how best the risks can be cushioned on business growth.

1.3 Aim or Purpose of the study

The main aim of this study was to establish and analyze the risks associated with corporate borrowing and the effects they pose on the company's performance. Establishing and analyzing these risks aid effective risk management that is in line with the company's mission, vision and values thereby enabling decision makers to strike a balance between risks associated with borrowing and their reward. The general objective of this study was to investigate the risks associated with corporate borrowing by the manufacturing firms within Lusaka and how these risks affect business growth.

1.4 Specific Objectives

The specific objectives of this study were:

i. To determine the risks associated with corporate borrowing on financial performance of Manufacturing firms in Lusaka.
ii. To establish the effects of debt financing on financial performance of Manufacturing firms in Lusaka.
iii. To draw policy implications based on the findings.

1.5 Research Questions

i. What risks are associated with corporate borrowing on the financial performance of manufacturing firms in Lusaka?
ii. What are the effects of debt financing on organizational performance for the manufacturing firms?
iii. What policy implications can be drawn from corporate borrowing?

1.6 Research Hypothesis

The main hypothesis that guided this study was;

An increase in corporate borrowing by the manufacturing firms has a negative impact on business performance

1.7 Limitations

There were various factors that posed as a constraint towards this study. Firstly, loadshedding has been on rampage from the onset of this study. Aside restrictions to accessing protected information, some institutions operated with skeleton staff in the offices whilst the majority of their staff members were conducting field work which made it very difficult to capture the right sample size of the respondents. Despite having the introductory letter from the school authorizing the researcher to collect data, some respondents still expressed mixed feelings about revealing some information to the researcher concerning the subject. At the institutional level, the Zambia Association of Manufacturers did not easily disclose protected information to the researcher and this proved to be a challenge to draw logical conclusions due to asymmetric information. In terms of covering the study on a wider scale, the study was almost already constrained by limitations of resources since the researcher was using personal finances and time which could not be adequate to cover many market places in Lusaka where most manufacturers are found, for instance Lusaka East Multi Facility Economic Zone. The use of questionnaires somehow slowed down the data collection process as some respondents took long to return them and the return rate was not 100%.

1.8 Significance of the Study

The Significance of the Study provides insight on company's performance before the indulgence in corporate borrowing and it also aids the financial market with knowledge about the risks associated with corporate borrowing and revise their lending terms which information could be useful in Epistemological Purposes (Knowledge Creation). The findings of this study would contribute greatly to the benefit of not only Zambia, but also other developing countries that share a similar context in that they are in a way dependent on debt financing. The findings add to the body of knowledge as the study showed the critical areas that may help all stakeholders advance expenditure on manufacturing. This research provided credible and thoroughly thought-out references for policy makers looking for ways to improve the Country's manufacturing sector. The study also provides a basis for further research on factors affecting manufacturing expenditure in Zambia using other variables that have not been used in this study. Lastly, For the researcher's Fulfillment of attaining the Master's Degree.

2. Literature Review

In this chapter, relevant literature on small scale businesses and financing schemes is discussed. The literature review helps to identify the gaps in the existing knowledge that this study aims to contribute. This chapter identifies and catalogues various studies on the impact of informal money saving schemes and summarizes the evidence across impact areas and specific target groups, reviews a wide array of countries impact research and summarizes the expected outcomes of participation in such money saving schemes, within both standalone and multi-component saving scheme programs. The analysis provides a comprehensive and nuanced interpretation of outcomes, and aims to contribute to improvements in both program and research design.

2.1 The Risks of Corporate Borrowing

While corporate borrowing can provide valuable capital for growth and operations, it comes with risks that need to be carefully managed. A balanced approach to debt management, where companies weigh the potential benefits against these risks, is essential for maintaining financial health. Corporate borrowing can offer companies the funds needed for expansion, acquisition, or other investments, but it also carries several risks. According to Buns (2017), below could be some of the potential risks associated with credit financing and their potential implications on organizational performance

Interest Rate Risk

If a company borrows with variable interest rates, it is exposed to the risk of rising interest rates, which can increase the cost of borrowing over time. Some companies use financial instruments to hedge against interest rate fluctuations, but this can be costly and complex.

Credit Risk and Credit Rating Downgrade

High debt levels can impact a company's credit rating, which affects its borrowing costs. A downgrade in credit rating due to excessive borrowing can raise future interest costs, reduce access to additional credit, and potentially make it more expensive to roll over existing debt.

- Declining Creditworthiness: If a company's financial situation worsens, its credit rating may be downgraded, leading to higher interest rates on future borrowing and reducing access to capital.
- Default Risk: If the company cannot meet its debt obligations, it risks defaulting, which can lead to bankruptcy or forced restructuring.

Bankruptcy and Insolvency Risk

Excessive debt levels increase the risk of insolvency. If a company cannot meet its debt obligations, it may be forced into bankruptcy, leading to asset liquidation, shareholder losses, and a damaged reputation.

Operational Risks and Strategic Constraints

High debt obligations can restrict a company's operational flexibility. For instance, funds that could be used for strategic investments, innovation, or expansion may instead go toward debt repayments, limiting growth opportunities.

Liquidity Risk

- Inability to Repay Short-Term Debt: Corporate borrowing may expose a company to liquidity risk if it cannot generate enough cash or refinance short-term debt when it comes due. This can lead to a cash crunch, forcing the company to sell assets or raise funds at unfavorable terms.
- Debt Maturity Mismatch: If a company borrows with short-term debt to finance long-term projects, it may face difficulty rolling over debt as it matures, particularly if market conditions change.
- Market Risk
- Economic Downturns: In times of economic downturn or recession, a company may face declining revenues, making it harder to service its debt. This could lead to liquidity issues or even default.
- Industry-Specific Risks: Changes in market demand, competition, or regulation in a company's industry can reduce profitability, making it difficult to meet debt obligations.

Currency and Exchange Rate Risk

Companies borrowing in foreign currencies are exposed to currency fluctuations, which can increase debt costs unexpectedly. For instance, if a company borrows in USD but earns in a weaker currency, repayment costs in terms of the local currency may increase. Hedging against foreign currency exposure can be expensive and may not fully mitigate risk.

Regulatory and Legal Risks

Changes in tax laws, interest rate policies, or other financial regulations can affect the cost and availability of borrowing. Additionally, new regulations could impose limitations on the amount or terms of corporate borrowing.

Reputational Risk

Excessive borrowing or an inability to manage debt effectively can damage a company's reputation with investors, customers, and suppliers, leading to decreased trust and business opportunities. Failure to manage debt properly, or the appearance of being overly leveraged, can affect a company's reputation with investors, customers, and suppliers, potentially leading to lost business and diminished trust in the market.

Debt Overhang Risk

When a company takes on too much debt, it may hesitate to pursue new projects or investments, even if they could be profitable, because the returns would primarily benefit creditors rather than shareholders. This can lead to a "debt overhang" that stifles growth and innovation

Covenant Risk

Loan agreements often include covenants (conditions that a company must meet, such as maintaining a certain debt-to-equity ratio). If these covenants are breached, creditors may demand immediate repayment or impose stricter terms, which can constrain the company's operations.

In line with studies, Altunbas et al. (2011), shows that lenders with high non-interest income are riskier. Larger lenders and those with more aggressive loan growth are less stable as well, while banks with less risk-taking are characterized by a strong deposit base.

Demirgüc-Kunt andHuizinga (2010) obtain similar results. They show that lenders with a high level of fee and trading income are more risky. Banks that heavily rely on wholesale funding are more risky as well, while Demirgüc-Kunt and Huizinga (2010) find no evidence that high rates of asset growth result into greater risk-taking. Common to both studies they both argue on the trickle-down risk which affects businesses or firms after acquisition of loans from such lenders and business indicators, they argue that businesses or companies burry themselves in a darkest hole and only comforted by the glimpse of lights on the horizon but in the long run they keep shrinking and businesses drown.

Jamal A. Mohamed Noor, 2014 from Jomo Kenyatta University in his study on the impact of financial risk on firm performance came to this conclusion that Financial Risks has great impact on the performance of Firms. This affects the operations in form of Asset acquisitions and maintenance of existing assets as globalization opens up the firm to outside competition, which in the long-run affects its performance. Financial Risks for instance, Credit Risk affects lending and borrowing by Financial Firms, Foreign exchange risks make firms realize unpredictable losses thus affecting their performance. His conclusion however, lacked a comprehensive analysis of risk and how it affects the company`s ultimate objective to maximise profitability.

2.2 Empirical Literature Review

Studies show that companies with higher exposure to floating-rate debt are more vulnerable to interest rate increases. For example, in a study by Chava and Purnanandam (2010), firms with a higher proportion of floating-rate debt suffered larger declines in stock prices when interest rates rose, indicating heightened financial stress. Research by Faulkender (2005) demonstrated that firms use interest rate derivatives to hedge this risk, particularly those with greater exposure to floating-rate debt, reducing volatility in cash flows.

Studies consistently show that firms with excessive debt are more prone to bankruptcy, especially during periods of economic distress. For example, Altman (1968) developed the Altman Z-score model to predict bankruptcy risk based on financial ratios, showing that firms with high leverage are more likely to default.

During the 2008 crisis, Lehman Brothers, a highly leveraged financial institution, became a prominent example of corporate insolvency driven by excessive borrowing. Similar patterns have been observed in other highly leveraged industries, such as airlines, which often face bankruptcy or restructuring during downturns.

Studies like Demerjian (2011) have shown that covenant violations can trigger significant consequences for borrowing firms. When companies breach debt covenants, lenders may impose restrictive measures or require immediate repayments, often resulting in stock price drops and restructuring. Firms with higher debt and more restrictive covenants are more likely to encounter covenant violations during economic downturns, further restricting their financial flexibility.

Myers (1977) introduced the concept of debt overhang, suggesting that companies with excessive debt levels may pass on profitable investment opportunities because the returns benefit creditors more than shareholders. This hypothesis has been confirmed in studies showing that highly leveraged firms tend to underinvest in growth opportunities.

Empirical studies, such as those by Hennessy, Levy, and Whited (2007), show that firms with substantial debt are more likely to experience debt overhang, leading to underinvestment in R&D and other long-term projects.

Empirical studies consistently support the theoretical understanding of the risks associated with corporate borrowing. Highly leveraged firms face increased risks, including higher costs of borrowing, vulnerability to economic downturns, reduced investment in growth, and higher probabilities of default. Empirical evidence highlights the importance of carefully managing debt levels and hedging against interest rate, currency, and macroeconomic risks.

Short term debt

Langat, et al., (2014) carried a study on the effect of debt financing on the profitability of Kenya Tea Development

Authority processing factories and indicated that company performance, which was measured by ROA, was significantly and positively associated with long-term debt and total debt at 5%, whereas short-term debt showed a negative and significant relationship at 5%. The negative relation between short-term debt and the profitability of factories that process tea meant that providing the finance through debts that are short-term does not lead to profitability. Maina & Ishmail (2014) did a study on financial performance and capital structure of firms listed at the NSE. Using statistical software and a regression model, the study concluded that debt and returns to shareholders are major determinants of financial performance of businesses listed at the NSE. The results obtained showed that there was a negative and significant relationship between financial performances and capital structure. This implied that if a business used more debt as a source of finance it would experience low performance. The study also concluded that firms listed at NSE used more short-term debts than long term.

Teruel and Solane (2008) analysed the Spanish SMEs Corporate cash holdings and found that firms with a higher amount of short-term debt will hold higher levels of cash. Weinraub and Visscher (1998) in their study on debt financing established that short - term debt is positively related to business's profitability, which might be the factor that is most important in accessing outside financing in countries with collateral laws that are not strong. From their studies they also found out that a positive relationship between tangibility and longterm debt and a negative relation between tangibility and short-term debt exists. These results are in line with most theories on capital structure that advocate that firms without fixed-assets to put up as collateral are not able to get hold of long-term financing. According to Garcia-Terul and Martinez – Solano (2007) Short-term debt is positively connected with firm's growth opportunities. The subjective evidence suggests that there is a positive relationship between short term debt financing and financial performance.

Long term debt

Long term debt is money that is owed to financiers for a period that is not less than one year. The study by EBaid (2009) found that there was no significant relationship between return on assets and long-term debt. Among well-established corporate institution, Long term debts are most preferable sources of debt financing in most cases by virtue of the base of their assets and collateral. Large financial banks have reduced lending to SMEs substantially thus constraining their potential for growth and financial performance. Masiega et al (2013) did a study investigating the effects of capital structure on the financial performance of listed companies at NSE. Thirty listed companies at NSE were tested and data collected for period of five years starting as from 2001 to 2011. The study concluded that there was a significant positive correlation between total company assets and longterm debt.

According to Githaig and Kabiru (2015), empirical results obtained presented enough evidence that long term debts affect SMEs financial performance in a negative manner. These results are conflicting to Schiantarelli and Jaramillo (1996) argument that long-term loans may lead to enhancements in productivity. Huang and Song (2006) found that a long term debt had a negative effect on profitability which was measured by the return on assets. Abor (2005) found that long term debt had a positive effect on financial performance. Whereas others found that long term debt has a negative effect on financial performance such as Ebaid (2009); Huang and Song (2006), presents conflicting results on this important element of capital structure leading to a gap in knowledge for further research. Jaramillo and Schiantarelli (2002) in their study in Ecuador regarding access to long term debt and effects on firm performance got indication that suggested that a shorter maturity was not favourable to greater productivity. Debts that are Long-term may actually lead to productivity boosts.

Effect of Interest rates

Njoroge (2013) carried out a study on relationship between financial performance and interest rates of manufacturing firms listed at the Nairobi Securities Exchange. The main drive of the study was to assess on how interest rates relate to financial performance of firms listed at the Nairobi Securities Exchange. The study factored in five years from 2008 to 2012 comprehensive and the research was built on secondary data that was got from published financial statements of the companies. Results that came out from the study indicated a not significant relationship that was positive between interest rates and financial performance.

2.3 Critique of Literature

A review of the literature showed that manufacturing sector development contributes positively to the economic growth of a country. Since literature on the impact of corporate Borrowing on manufacturing firms is limited, the research considered literature that shows the impact of corporate borrowing on economic growth. Literature does not show explicitly if there is a negative relation between corporate borrowing and financial performance of an organization as data is very limited.

A further literature review also shows that the determinants of corporate borrowing cannot be generalized, whether using country specific or cross-country analysis. Results of studies reviewed in this research on the determinants of corporate borrowing also vary depending on the methodology, approach or proxies used. In conclusion, coupled with the fact that there is very limited literature on this subject, there are very few common grounds identified as potential determinants of corporate borrowing. The study reviewed literature to establish what the acceptable limits of corporate borrowing are to establish what some of the policy implications of exceeding this threshold may be. The findings show mixed reviews most of which show that an increase in corporate borrowing does not necessarily translate into a negative performance of the business. What is observed in most studies is that an excessive accumulation of debt for a business leads to a

decrease in capital stock accumulation.

2.4 Theoretical Framework

The section presents the theoretical and conceptual frameworks on which this study is premised. Theoretical and conceptual frameworks have been used as foundational components of the research study. They each play a crucial role in guiding and structuring the research, from the formation of research questions to the interpretation of results. While both the theoretical and conceptual framework provide a structure for the study, they serve different functions and have impacted the research in distinct ways they are combined. These differences might seem subtle, but they have significantly impacted the research design and outcomes.

The theoretical framework describes the broader lens through which the researcher views the topic and guides their overall understanding and approach. It connects the theoretical perspective to the data collection and data analysis strategy and offers a structure for organizing and interpreting the collected data. On the other hand, the conceptual framework describes in detail and connect specific concepts and variables to illustrate potential relationships between them. In this study, it serves as a guide for assessing which aspects of the data are relevant and specifying how the research question is being answered. While the theoretical framework has been used to outline how more abstract-level theories will shape the study, the conceptual framework will operationalize the empirical observations that can be connected to theory and broader understanding. There are various theories revolving around corporate borrowing and for this research, the Trade-off theory, Pecking Order Theory, Agency Cost Theory, Modigliani and Miller Theorem and Signaling Theory forms the basis of the theoretical framework.

Trade-Off Theory

The trade-off theory of corporate borrowing explains how firms determine their optimal capital structure by balancing the benefits and costs of debt. This theory primarily focuses on the trade-off between the tax advantages of debt and the costs of financial distress. This theory suggests that firms seek to balance the tax benefits of debt against the potential costs of financial distress. Debt provides tax shields because interest payments are tax-deductible, reducing the firm's overall tax burden. However, excessive borrowing increases the risk of bankruptcy and associated costs (Kraus & Litzenberger, 1973).

Key Components of the Trade-Off Theory and the implications on the business

Tax Shield Benefits: Interest payments on debt are tax-deductible, reducing the firm's taxable income and providing a tax shield. This tax advantage makes debt an attractive financing option (Modigliani & Miller, 1963).

Cost of Financial Distress: As a firm increases its debt level, the risk of financial distress or bankruptcy grows. Financial distress includes both direct costs (legal and administrative) and indirect costs (reduced productivity, loss of customers) associated with insolvency (Kraus & Litzenberger, 1973).

Agency Costs: High debt levels can mitigate agency costs by disciplining management to avoid wasteful spending. However, excessive debt can also lead to agency conflicts between shareholders and creditors, where shareholders might take on riskier projects to benefit from potential high returns (Jensen & Meckling, 1976).

Optimal Debt Ratio: The theory suggests that firms aim to reach an optimal capital structure where the marginal benefit of debt equals its marginal cost. This balance maximizes firm value and minimizes the weighted average cost of capital (WACC).

For businesses, especially those in capital-intensive sectors like manufacturing in Zambia, understanding this trade-off helps in making informed borrowing decisions. Companies must consider the following:

- Tax Benefits: Leveraging debt can reduce the overall tax burden.
- Risk Management: Avoiding excessive borrowing to prevent financial distress.
- Strategic Use: Using debt strategically to fund growth without jeopardizing financial stability.

In Zambia's manufacturing sector, firms might use moderate debt to finance expansion projects, benefiting from tax savings. However, if the economic environment is unstable, excessive borrowing could lead to financial strain, negating these benefits.

Pecking Order Theory

The Pecking Order Theory, developed by Stewart Myers and Nicolas Majluf (1984), explains how companies prioritize their sources of financing. According to this theory, firms follow a hierarchy in their financing decisions, preferring internal funds over external funds. If external financing is necessary, they choose debt over equity due to lower costs and reduced information asymmetry.

Key Principles of Pecking Order Theory:

Internal Financing First: Companies prefer to use retained earnings or internal funds because they are readily available and avoid external scrutiny. This prevents dilution of ownership and reduces transaction costs.

Debt Over Equity: If internal funds are insufficient, firms prefer borrowing (debt) to issuing new shares (equity). Debt is less costly because interest payments are tax-deductible, and it involves less information disclosure than equity issuance. Borrowing also signals to investors that management is confident in the company's ability to generate future cash flows.

Equity as a Last Resort: Issuing new shares is the least preferred option because it can dilute existing shareholders' ownership and may signal that the company is overvalued or facing financial distress. Investors might interpret equity

issuance as a sign that managers believe the company's stock is overpriced.

Reasons for the Hierarchy

Information Asymmetry: Managers often have better information about the company's prospects than external investors. Issuing equity might lead investors to suspect that managers are overvaluing the company's shares, which can reduce stock prices.

Cost Considerations: Debt is generally cheaper than equity due to lower transaction costs and tax benefits. Also, it doesn't involve the same level of ownership dilution.

Application of the Pecking Order Theory in Corporate Borrowing for the manufacturing companies in Zambia:

Preference for Internal Funds: These firms might use retained earnings for smaller projects or short-term needs to maintain control and avoid external debt costs.

Debt Financing for Growth: When internal funds are insufficient, they may borrow to finance large-scale investments, expansion, or equipment upgrades, benefiting from tax deductions on interest.

Equity Avoidance: Issuing shares may be a last resort due to potential dilution and negative market perceptions.

Zambian manufacturing firms might rely on borrowing as a primary external source to avoid the dilutive effects and scrutiny associated with issuing equity in the local market.

Limitations of the Theory:

Debt Capacity Constraints: Some firms might be unable to borrow more due to existing high debt levels or poor credit ratings, limiting the applicability of the theory.

Market Conditions: Economic environments (like high-interest rates in Zambia) can make borrowing more expensive, forcing firms to consider equity or other financing methods.

Agency Cost Theory

Agency costs arise from conflicts between managers and shareholders or creditors. Jensen and Meckling (1976) argued that debt can help mitigate managerial discretion, as it imposes mandatory interest payments, thus reducing free cash flow that managers might otherwise misuse. In Zambia's manufacturing sector, monitoring mechanisms in debt contracts can align management's interests with those of creditors, enhancing efficiency. Agency Cost Theory, introduced by Jensen and Meckling (1976), examines the conflicts that arise when one party (the principal) delegates work to another (the agent). In a corporate setting, these parties typically refer to shareholders (principals) and managers (agents). The theory focuses on the costs incurred due to conflicts of interest and the mechanisms needed to align their goals.

Key Concepts of the Agency Cost Theory

Monitoring Costs: Expenses incurred by shareholders to monitor management's activities and ensure they act in the owners' best interest (e.g., audits, performance reviews).

Bonding Costs: Costs borne by management to guarantee they won't act against shareholder interests (e.g., insurance or contractual obligations).

Residual Loss: The loss in value that arises even after monitoring and bonding efforts due to imperfect alignment of interests.

Sources of Agency Problems

Managerial Opportunism: Managers might prioritize personal benefits (e.g., higher salaries, perks) over maximizing shareholder value.

Risk Aversion: Managers may avoid risky projects to protect their jobs, even if these projects could benefit shareholders.

Free Cash Flow: Managers with excess cash might invest in unprofitable projects or pursue acquisitions that don't add value.

Agency Costs in Corporate Borrowing

Debt as a Governance Mechanism: Taking on debt can reduce agency costs by imposing financial discipline on managers. Regular interest and principal repayments leave less free cash for discretionary spending, compelling managers to focus on profitable projects (Jensen, 1986).

Conflict Between Shareholders and Creditors: High debt levels might create conflicts between shareholders and creditors. Shareholders might favor riskier projects since they benefit from potential high returns, while creditors face the downside risk of default.

Covenants in Debt Agreements: Creditors often include covenants in loan agreements to limit managerial actions (e.g., restrictions on additional borrowing, dividend payments). These covenants help align the interests of debt holders and management.

Application of the Agency Cost Theory in the manufacturing industry in Zambia

Firms may implement strict governance structures to monitor how borrowed funds are utilized. Introducing performance-based incentives for managers can reduce agency conflicts. Excessive debt can discourage risky but potentially profitable projects, balancing risk-taking with financial stability. Essentially, Agency Cost Theory highlights the importance of aligning management's interests with those of shareholders and creditors. Effective governance structures, appropriate use of debt, and monitoring mechanisms help minimize these costs, enhancing corporate performance and value.

Modigliani and Miller Theorem

Modigliani and Miller (1958) proposed that, in a perfect market without taxes or bankruptcy costs, a firm's value is

independent of its capital structure. However, with real-world imperfections, the cost of borrowing and the risk of financial distress affect this relationship. This theory underscores the importance of understanding market conditions and regulatory environments, such as Zambia's interest rate policies, in influencing corporate borrowing decisions. The Modigliani and Miller (M&M) Theorem, introduced by Franco Modigliani and Merton Miller in 1958, is a fundamental concept in corporate finance. It addresses the impact of capital structure (debt vs. equity) on a firm's value and cost of capital. The theorem consists of two key propositions:

Proposition I: Capital Structure Irrelevance

In a perfect market (without taxes, transaction costs, or bankruptcy risks), the value of a firm is independent of its capital structure. This means the mix of debt and equity does not affect the overall value of the firm. A firm's value is determined solely by its assets and investment decisions, not how it finances them. Whether a company finances its operations through debt or equity, the total value remains the same.

Proposition II: Cost of Equity and Debt Relationship

The cost of equity increases as a firm takes on more debt due to higher financial risk. However, the weighted average cost of capital (WACC) remains constant because the increased cost of equity offsets the benefits of cheaper debt financing. While debt can be cheaper than equity, increasing debt levels raises the return required by equity investors due to the higher risk of default. This trade-off keeps the overall cost of capital unchanged.

Real-World Considerations: Market Imperfections

The original M&M theorem assumes a perfect market, but in reality, factors like taxes, bankruptcy costs, and information asymmetry affect corporate borrowing decisions:

Tax Benefits of Debt: Interest payments are tax-deductible, providing a tax shield that can lower the overall cost of capital. This benefit encourages firms to use more debt (Modigliani & Miller, 1963).

Bankruptcy Costs: Excessive debt increases the risk of financial distress. These costs can reduce firm value, making an optimal capital structure important (Kraus & Litzenberger, 1973).

Agency Costs: High debt levels can mitigate managerial excesses by imposing financial discipline. However, they can also lead to conflicts between shareholders and creditors (Jensen & Meckling, 1976).

Application in Corporate Borrowing for the manufacturing firms in Zambia

Optimal Borrowing Decisions: Firms must consider the tax advantages of debt while managing the risks of financial distress. While borrowing can boost returns through leverage, firms need to avoid excessive debt that could lead to insolvency, especially in volatile markets. In practice, manufacturing firms need to consider market imperfections, aiming for an optimal mix of debt and equity to balance risk and reward.

Signaling Theory

According to this theory, corporate borrowing can signal a firm's confidence in future cash flows. High debt levels might indicate to investors that management believes the company will generate sufficient returns to service the debt (Ross, 1977). A Zambian manufacturing firm securing a significant loan could signal growth prospects, positively influencing investor perception. The theory introduced by Michael Spence in 1973, explains how companies convey information to investors and stakeholders through their financial decisions, particularly in scenarios where information asymmetry exists. In corporate borrowing, signaling theory suggests that a firm's financing choices can signal its future prospects to the market.

Key Concepts of the Signaling Theory

Information Asymmetry: Managers typically have more information about a company's financial health and future prospects than external investors. This creates a gap, leading to uncertainty about the firm's true value.

Debt as a Positive Signal: When a firm takes on debt, it may signal to investors that management is confident about the company's future cash flows and profitability. The rationale is that firms with strong financial prospects are more willing to incur debt because they believe they can service it comfortably (Ross, 1977).

Equity Issuance as a Negative Signal: Conversely, issuing new equity might signal that the company is overvalued or facing financial difficulties. Investors might interpret it as a lack of confidence in future earnings since issuing equity dilutes existing shareholders' value (Myers & Majluf, 1984).

Implications for Corporate Borrowing Decisions

Strong Firms Borrow More: Financially healthy firms prefer debt over equity to signal their strength and confidence. This aligns with the pecking order theory, which also prioritizes debt before equity.

Risk of Misinterpretation: Companies must manage their borrowing carefully. Excessive debt can also signal financial distress if not backed by solid fundamentals. Therefore, firms need to balance signaling confidence and avoiding excessive leverage.

Implication for the Manufacturing Firms in Zambia

For manufacturing firms in Zambia, borrowing decisions can convey signals about borrowing to invest in new technology or expand operations which indicates confidence in future revenue streams. Furthermore, if the industry is facing economic challenges (like power shortages or currency instability), cautious borrowing strategies might prevent negative market interpretations.

The signaling theory underscores the importance of perception in financial decisions. Corporate borrowing is not just about raising capital but also about communicating the company's health and prospects to investors and stakeholders.

2.5 Conceptual Framework

A conceptual framework for corporate borrowing in this study provides a holistic view of the factors influencing borrowing decisions, their theoretical foundations, and their impacts on firm performance. For manufacturing firms in Zambia, the framework helps navigate borrowing strategically, balancing growth opportunities with financial stability.

The choice of variables to investigate the risks associated with corporate borrowing and business growth of the manufacturing industry in Zambia has been identified by examining the business outcomes, increased stock resources, increased sales and profits. Since the ultimate goal of corporate borrowing is to improve the economic condition of the economically active businesses, the effect of the risks will be measured by changes in the economic welfare of their business.

The study measures the economic wellbeing of the business by income and consumption (OECD, 2015). The main outcome variables included in this study are economic variables (improved profit, increased stock resources and sales improvements) and variables related to the development of human capital like expenditure on children education in the households and medical care (health). For this study, the conceptual framework is presented in figure 2 below.

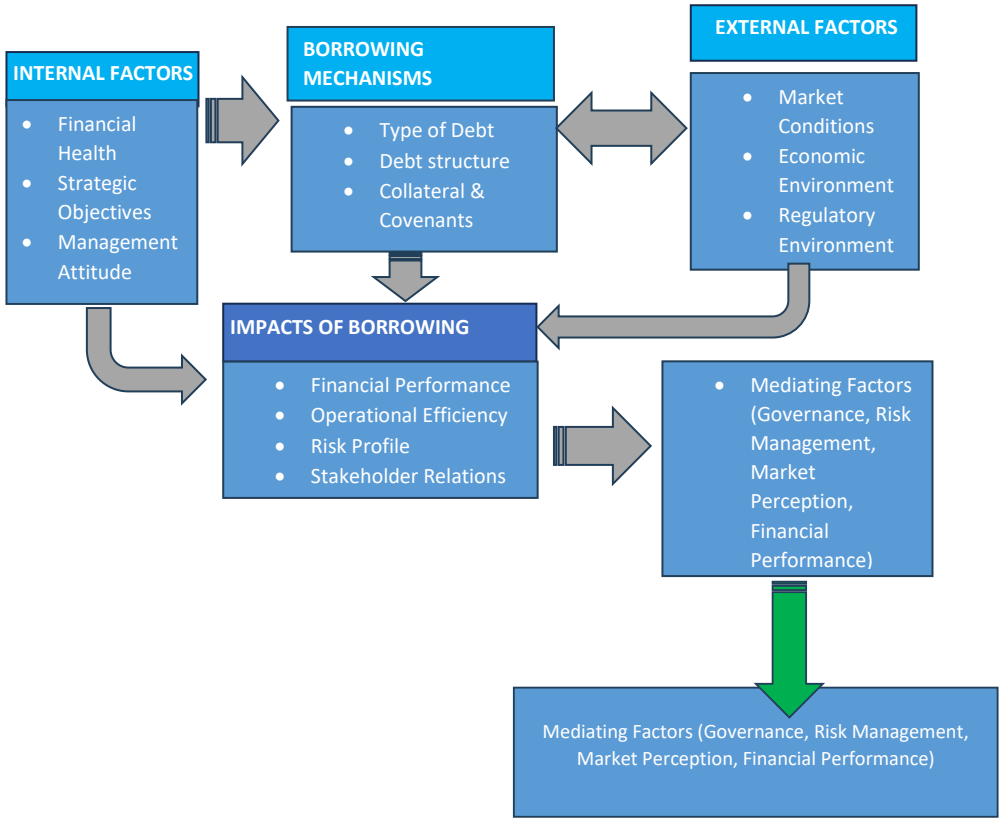

Figure 2: The conceptual framework (Constructed by the author)

This conceptual framework underscores the multifaceted nature of corporate borrowing. For manufacturing companies in Zambia, understanding these relationships helps navigate borrowing decisions to optimize performance and mitigate risks.

3. Research Methodology

This chapter presents the research methods which will be employed in this study. It constitutes the following: research design, target population, sample size, sampling procedure, research instruments, data collection and data analysis. This chapter explains how the researcher intends to carry out the research. It's a logical, systematic plan to resolve a research problem. Methodology details have been used as an approach to the research to ensure reliable, valid results that address the aims and objectives. This chapter encompasses how, where, when and from whom data will be collected data and from where it will be collected and analyzed.

The methodology will give this research legitimacy and provides scientifically sound findings. It also provides a detailed plan that helps to keep researcher on track, making the process smooth, effective and manageable. A researcher's methodology allows the reader to understand the approach and methods used to reach conclusions.

3.1 Research Design

Burns and Grove (2003) define research design as a blue print for conducting a study with maximum control over factors

that may interfere with the validity of the findings. Parahoo (1997) describes a research design as a plan that describes how, when and where data are to be collected and analyzed. This research will adopt a combination of both quantitative and qualitative research techniques, methods and approaches by exploring various journal articles, case studies and survey research design. The qualitative data hopes to provide a deeper understanding of the already existing literature while the quantitative data and statistical analysis will provide a detailed assessment of patterns of data. The research design is empirical and non-experimental in the sense that it has been carried out in a natural and uncontrolled setup and that there will be no control group or treatment given to the respondents in order to obtain certain information (Bless and Achola; 1990:56).

The study applied a panel and correlation research design because the study seeks to describe the causal effect between the debt funding variables of corporate borrowing and the financial performance of manufacturing firms listed in the Lusaka Securities Exchange for a nine-year period (2015-2024). The population for this study consists of all the listed manufacturing firms composed of nine companies in the LSE from 2015 to 2024. The relationship between corporate borrowing and financial performance will thus be estimated in the following regression model:

$$YBGit = \alpha + \beta 1STRit + \beta 2LTRit + \beta 3INTit + \beta 4EXRit + eit$$

The regression model above measures the effect of independent variables on financial performance of the firm represented by ROA Where:

YBGit is the growth for firm i in time t as a measure of performance
STRit is the short term Risk for firm i in time t
LTRit is the long term Risk for firm i in time t
INTit are the Interest rates of a firm i in time t
EXRit are the Exchange rate for firm i in time t
eit is the error term
α is a constant term
βs are coefficients of the explanatory variables

Bounds Test

After running the Autoregressive Distribution Lag model (ARDL), the bounds test is conducted to determine if the variables are cointegrated in order to validate the long run and short run estimates. The bounds test is a test that relies on the Wald test (F statistic) and is hypothesised as below:

$H0: B1 = B2 = B3 = B4 = B5 = B6 = B7 = 0$

Against the alternative hypothesis which is that at least one of the coefficients is not equal to 0 as shown below

$Ha: B1, B2, B3, B4, B5, B6, B7 \neq 0$

The rejection of the null hypothesis is an indication that variables have a long run relationship. This occurs when the estimated F statistic is higher than the upper bound. Contrary to this, the null hypothesis is not rejected if the computed F statistic is smaller than the upper bound and is inconclusive if it lies anywhere in between (Chizonde, 2016; Roboloko, 2018).

3.2 Research Philosophy

Research Philosophy Benbasat et al., (1987), observed very accurately that no single research methodology is intrinsically better than any other methodology, many authors calling for a combination of research methods in order to improve the quality of research. Equally, some researchers have tended to adopt a certain "house style" methodology (Galliers, 1991); which seems to be almost in defiance of the fact that, given the richness and complexity of the real world, a methodology best suited to the problem under consideration, as well as the objectives of the researcher, should be chosen (Benbasat, 1984; Pervan, 1994b). In this research, the researcher tried to avoid what may be characterized as methodological monism, i.e., the insistence of using a single research method due the over-riding principle that the research design should be both relevant to the research question, as set out in Chapter one and rigorous in its operationalization (Kaplan and Duchon, 1988). Overall, the researcher believes that a mixed method research design is appropriate for this study in that firstly, previous research conducted on the subject were purely quantitative in nature. Secondly, the researcher believes the understanding of how the decision makers adopt and adapt to the use of policy induced decisions form the basis of the quantitative analysis whereas the formulation and implementation of sound macroeconomic decisions insofar as corporate borrowing is concerned forms the qualitative part of the research design. Without employing both qualitative and quantitative design, it would be impossible to arrive at the most logical results of the analysis (Balkovskaya, D. & Filneva, L. (2012).

3.3 Study Population

According to Kombo and Tromp (2013), population denotes the whole group of personages, events or objects possessing a mutual observable characteristic. It is the totality of the objects in the investigation. The study targeted the manufacturing companies in Lusaka's heavy and light industrial area. According to the 2023 Central Statistical Records, there are over 300 manufacturing companies in Lusaka.

3.4 Sampling technique and Sample Size

According to Ashta (2014), sampling is a technique of selecting individual members or a subset of the population to make statistical inferences from them and estimate the characteristics of the whole population. In this study, simple random sampling was used for the selection of participants from the target population. This was done by using the Manufacturing Association of Zambia data base of its members as a sampling frame to come up with the required sample size. Kombo and Tromp (2013) stipulate that, sample size is a complete set of groups of members that the researcher intends to study. The exact number of items selected from the population to constitute a sample is what is called sample size (Adam and Kamuzora, 2018). Additionally, Parton, (2015) defines Sampling procedure as the process or the method of drawing a definite number of individuals, cases or observations from a particular universe, selecting part of a total group for investigation.

When postulating a sample, each unit had an equal chance (probability) of being chosen from the population being studied. According to Cochran's calculator with a confidence level of 95%, 0.05% margin of error and response distribution of 0.5, a sample size of 20 manufacturers was used. To select the sample for the respondents, a simple random sampling method was employed. Simple random sampling method gives all the members of the population an equal chance to be included in the sample. For this study, every potential respondent encountered was asked whether or not their company had borrowed funds for recapitalization. If they answered yes, they were asked the type credit facility the company had acquired whether or not it was short or long term. In the event that their company had engaged in both short term and long term borrowing, participants were administered a questionnaire and indicated both. Once a sampling technique had been chosen, the next step was to calculate the appropriate size of the sample. The minimum required sample size for this study was specified by using the Cochran (1977) sample size determination formula:

Table 1. Cochran's Formula

((1.96)2 (0.5) (0.5)) / (0.05)2 = 30. So, a random sample of 377respondents in the target population of 20000 was enough to give us the confidence levels we needed.

$$n = N \times \left[Z^2 \times p \times \frac{1-p}{e^2}\right] / [N - 1 + (Z^2 \times P \times \frac{1-p}{e^2}]$$

Particular	Value
Population Size (N)	300
Critical Value (95%)	1.96
Margin of Error (e)	0.05
Sample Proportion (uncertain) (P)	0.5
Sample proportion (P)	0.05

Where n=sample size, N=Population size, and e=margin of error

Let N be the population size and the margin of error (e) denotes the allowed probability of committing an error in selecting a small representative of the population. Therefore, N=300 is the estimated number of manufacturers in Lusaka (Central Statistics Office, Population and Demography of Zambia, 2020).

n=N=(300x(1.96^)x0.5x(1-0.5)/(300)-1+((1.96^)x0.5x(1-0.5)/0,05^
n=6029/198
n=30

Although there are various manufacturing firms in Zambia with different financing regimes, this study focused mainly on examining the effect of risks associated with corporate borrowing and its impact on business growth.

Since there are many small-scale businesses venturing in manufacturing, this study conveniently selected a total of 30 manufacturing companies in Lusaka, of which all of them have been involved in corporate borrowing. This number had been arrived at as an appropriate sample size targeting finance managers, project managers and operations managers of manufacturers to provide sufficient information regarding the topic of this study.

3.5 Sources of Data

This research work is both qualitative and quantitative in nature, and as such data are sourced through primary and secondary sources. The primary source employed the use of a structured questionnaire to extract relevant information from the respondents which corresponds to an interpretive phenomenological research design in the data collection process. Secondary data were obtained from relevant sources of information and different publications, journals and reports on microfinance and business growth trends of manufacturing companies in Lusaka.

3.6 Data collection and Research Instruments

This research employed interview guides schedule as the main research instrument that was used in collecting data from key target participants. This tool provided information on knowledge, attitude, belief and experiences related to the manufacturing industry practitioners. Questionnaires developed by NIDS (National Income Dynamics South Africa) and

AIMS (Assessment of Impact of Microfinance Services) were adopted and extensively used during the preparation of the interview guide for this study.

3.7 Data Analysis, Instruments and Procedures

The study employed a mixed method approach using qualitative and quantitative data. For qualitative data analysis, the researcher designed a questionnaire that is both closed ended and open ended and contained elements of the profile for the respondents such as gender, age group, education and elements from the research questions that would be broadened to come up with themes. This study used the thematic analysis approach. Thematic analysis was used to analyse, classify and present themes (patterns) that are related to the data. This illustrates the qualitative data in great detail and deals with diverse subjects via interpretations (Boyatzis, 1998). In the case of thematic analysis, processed data can be displayed and classified according to its similarities and differences (Miles and Huberman 1994). These questions were rated on five scale Likert with the responses from strongly agree with a rating of five and strongly disagree with a rating of one. For quantitative analysis, the study adopted a vector autoregressive model with Business Growth as the response function whereas corporate risk, debt overhang, interest rate, Exchanges rates and insolvency are explanatory variables. The time series data on Zambia manufacturing industry performance for the period 2010 to 2023 were analysed using a statistical technique known as eviews for statistics and econometrics. The reason for using eviews is it's comprehensiveness in creating descriptive statistics, frequency tables, simple percentage analyses exploratory statistics and cross-tabulation tables. The least squares method was used to test for statistic with the primary objective of finding the parameters from the set of observed data points that minimize the sum of the squares of the differences between the observed values and the values predicted by the model

3.8 Ethical Considerations

According to De Vos et al, (2011) "ethics are a set of moral principles which is suggested by an individual or group, is subsequently widely accepted, and which offers rules and behavioral expectations about the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students". Welman et al, (2005:181), further stipulate that "ethical considerations come into play at three stages of a research project, namely when participants are recruited, during the intervention and measurement procedure and in the release of the results obtained." This research maintained all ethical issues such as honesty and integrity; it also aimed at avoiding bias in any aspect, including design, data analysis, interpretation, carefulness, openness and respect for intellectual property. Permission to collect data for the research was obtained from the University of Zambia through the Directorate of Research and Post-Graduate Studies (DRGS). The researcher requested consent from the business owners and after approval was granted, the researcher visited the identified selected individual participants for introduction. After data collection, coding and interviews, data were analyzed using qualitative methods. In adherence to ethical guidelines, all names, whether business or persons' names, were replaced with pseudonyms during data coding, analysis and reporting in order to secure the anonymity of the participating persons and institutions. This study was conducted within the acceptable norms and standards of an academic research work. All relevant permissions for conducting the study was obtained from the institutions involved, including Ministry of Small and Medium Enterprises, Ministry of Greene Economy, Ministry of Commerce Trade and Industry, Zamstats, the Zambia Association of Manufacturers and the University of Zambia. All respondents were included by individual consent without compulsion. As a matter of confidentiality, no information was divulged to other people, in any form, that would compromise the integrity and reputation of the participants in the study, whether institutional or human. The study was conducted only within its scope and no part of the study fell under biasness or plagiarism.

Participants in this study will gain valuable insights into the relationship between corporate borrowing and business growth, enhancing their understanding of financial risk management. Key benefits include:

- Enhanced Financial Decision-Making - Whereby participants will learn about the potential risks associated with borrowing, including interest rate fluctuations, repayment challenges, and the impact of debt on cash flow. This knowledge enables better decision-making when considering loans or credit for business expansion.
- Improved Risk Management Strategies – The study will highlight strategies to mitigate borrowing risks, such as assessing debt capacity, diversifying funding sources, and maintaining an optimal debt-to-equity ratio. This information helps participants protect their businesses from financial instability.
- Understanding the Impact on Business Growth – By examining the relationship between borrowing and growth, participants can identify how to leverage debt effectively to fuel expansion without compromising financial health.
- Benchmarking and Best Practices – Insights from industry data and case studies presented in the study may provide participants with benchmarks and best practices relevant to their sector.
- Long-Term Financial Planning – The study may emphasize the importance of aligning borrowing decisions with long-term business goals. Participants will learn how strategic planning and prudent borrowing can contribute to sustainable growth.
- Awareness of Regulatory and Economic Factors – Participants will gain awareness of external factors affecting borrowing, such as changes in interest rates or regulatory policies. Understanding these factors enables them to anticipate and adapt to market conditions.

Overall, the study equips participants with the tools and knowledge to navigate the complexities of corporate borrowing,

fostering informed decisions that promote business resilience and sustainable growth.

3.9 Validity and Reliability for this research

Reliability refers to the consistency of a measure (whether the results can be reproduced under the same conditions). Validity refers to the accuracy of a measure (whether the results really do represent what they are supposed to measure). To test for reliability and validity of the research instruments used in this study, the researcher employed both qualitative and quantitative research approaches by firstly; formulating descriptive statistics from the tally tables and developing a code book which had been used to give meanings and interpretations to the codes. Open ended questions were grouped into themes, where the content of the responses had been analyzed to derive their meanings. Afterwards, the time series data (2010 – 2023) was analyzed by a structural vector-autoregressive model (SVAR) adopted from (Mendel and Fleming, 2004) using computer software known as Eviews 12.0.

4 Data Presentation, Analysis and Discussion of Findings

This chapter looks at the results of the study, analysis of the results and the interpretation of the results and based on the research objectives being: To determine the risks associated with corporate borrowing on financial performance of Manufacturing firms in Lusaka; To establish the effects of debt financing on financial performance of Manufacturing firms in Lusaka; To draw policy implications based on the findings.

4.1 Demographic and Descriptive Analysis

Gender of Respondents

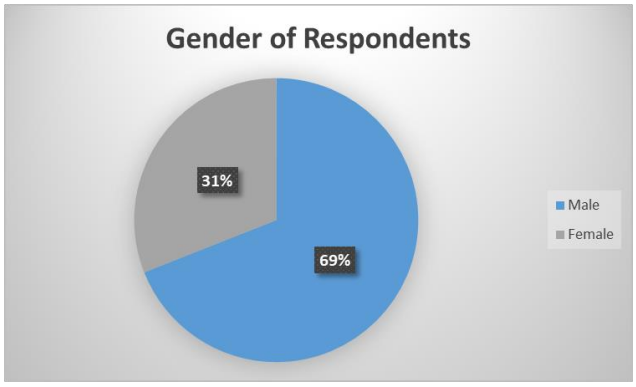

Figure 3: Gender of Respondents
Source: Author's computation from the responses of the questionnaire

From the figure above, 69% of the respondents were males whereas female respondents constituted 31% of the sample size. This indicates that more males are involved in the manufacturing sector than females. Based on the first objective, it was crucial for this research to capture the gender of the respondents in order to appreciate the understanding of risk determinant.

Level of Education of participants

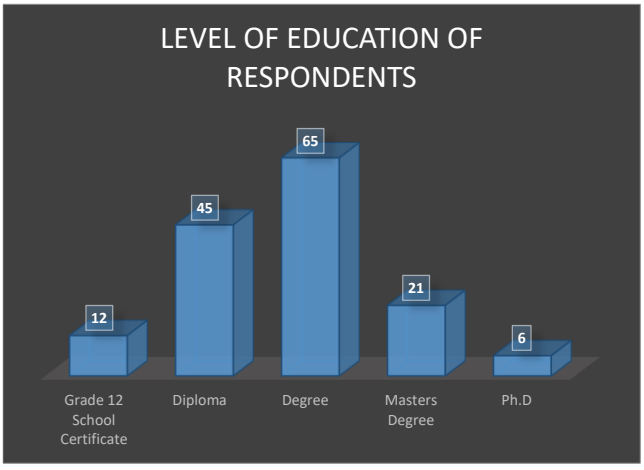

Figure 4: Level of Education of participants
Source: Author's computation from the responses of the questionnaire

Figure 4 shows that majority of the workforce in the manufacturing sector have degree. A number of technocrats have entered the manufacturing industry at PhD level however, the number is significantly low which leaves a huge gap for R&D. Based on the research objectives, understanding the level of education for the respondents was extremely important as every decision made by these decision makers especially borrowing funds for recapitalization has severe implications for the business and education is a great equalizer for sound decision making.
Casual workers and Diploma holders are levitating towards getting higher qualification for promotions and improvement. Master's degree holders hold a significant value in the manufacturing industry which is good for the growth of the economy.

Manufacturing sector trends versus other sectors from 2011 to 2020

Table 10: Commercial Banks Lending by Economic Sector (K' Million), 2011 - 2020

Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture, Forestry and Fishing	2,124.4	3,763.0	3,752.4	3,596.5	4,535.5	4,034.6	4,967.7	4,932.9	5,851.3	7,116.8
Mining and Quarrying	509.7	942.7	1,226.4	1,083.1	1,673.1	1,483.1	1,542.5	2,047.5	2,650.7	2,702.9
Manufacturing	1,461.6	1,881.0	1,758.6	2,499.5	3,539.1	2,983.1	1,907.1	2,668.8	3,181.4	4,419.4
Electricity, Gas and Water	196.8	338.9	311.9	469.4	435.5	516.5	748.0	874.3	1,544.7	1,964.1
Construction	504.0	620.6	654.7	743.0	897.7	907.0	1,073.4	873.5	767.6	748.0
Wholesale and Retail trade	1,248.3	1,124.5	1,709.1	1,699.4	2,833.1	2,411.9	2,781.1	3,232.1	4,080.1	3,683.5
Restaurants, Bars and Hotels	253.5	339.4	321.7	354.7	424.1	376.3	358.6	367.7	337.7	447.2
Transport, Storage and Communications	650.6	772.2	838.3	1,219.8	1,334.3	1,086.9	1,139.2	1,795.5	3,119.7	3,685.2
Financial Intermediaries and Insurance	603.5	309.3	381.0	540.5	702.8	419.6	544.5	1,205.4	733.6	798.3
Community, Social and Personal Services	255.9	347.6	378.3	461.8	446.0	406.8	1,013.3	1,392.1	2,340.6	5,290.2
Real Estate and Business services	297.8	400.9	406.6	406.7	755.0	829.0	859.4	1,008.0	1,152.2	1,957.6
Total	**8,106.2**	**10,840.3**	**11,739.0**	**13,074.2**	**17,576.2**	**15,454.8**	**16,934.7**	**20,397.9**	**25,759.6**	**32,813.3**

Note: These figures exclude individuals and households
Source: Commercial Banks

Figure 5: Manufacturing sector trends versus other sectors from 2011 to 2020

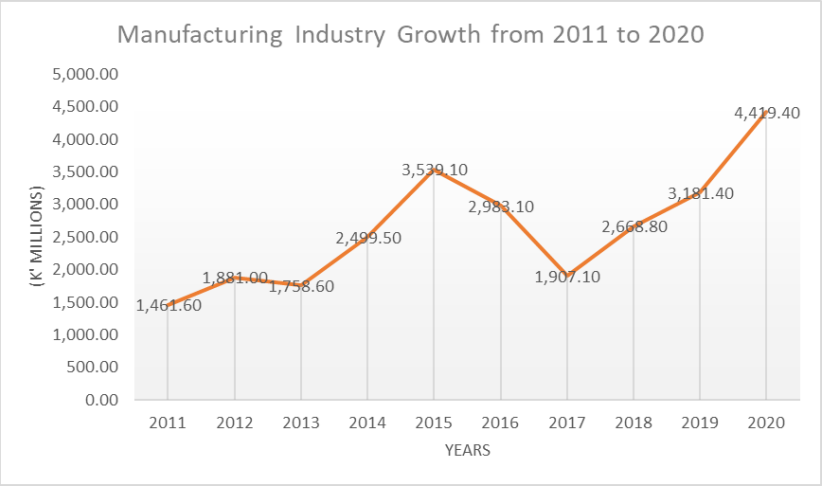

Figure 5b: Manufacturing sector trends from 2011 to 2020
Source: 2020 Bank of Zambia Bulletin

Figure 5 shows a drastic trend in the manufacturing sector between 2011 and 2020 against other industries owing to various factors such as the size of the economy, climate change, politics, international economics to name a few. The sector recorded an all-time low growth in 2011 and grew steadily until 2013 when it declined but gained momentum until it began to decline slightly in 2015 through to 2017. In 2018, the sector began to grow exponentially up until 2020. According to the Zambia Association of Manufacturers (2020), the sector has seen significant growth to the tune of 4% pa as of September 2021 owing to macroeconomic stability and investor confidence. However, there has been a sharp decline in the manufacturing sector due to the Elnino effects and climate change. Loadshedding, Covid19, Russo-Ukraine war has negatively hampered growth prospects of the sector (ZAM, 2023). The research objectives were fully incorporated by these findings as market share plays a role in which firms can leverage competitive advantage and have access to credit facilities from the financial institutions.

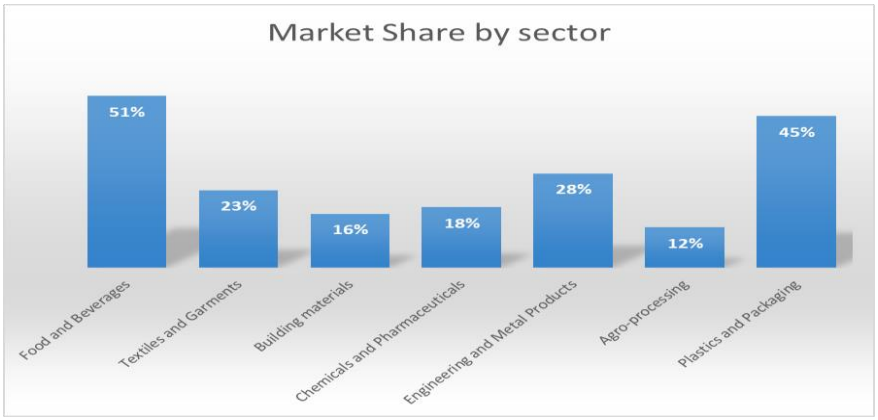

Figure 6: Sector specialization within the manufacturing Industry
Source: Author's computation from the responses of the questionnaire

The largest contributor of the manufacturing industry in Zambia is Food and beverages which constitutes about 51% followed by plastics and packaging contributing 45% to the sector. Agro-processing is the least contributor to the sector with only 12% average growth trends pa whereas Building materials, chemicals and pharmaceuticals, Textiles and Garments contribute 16%, 18% and 23% respectively.

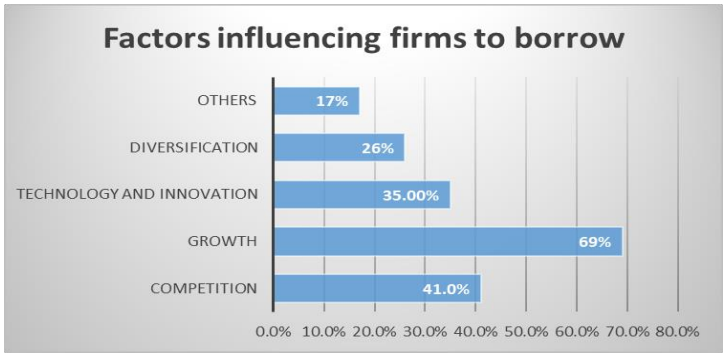

Figure 7: Factors that influence companies to engage in corporate borrowing
Source: Author's computation from the responses of the questionnaire

From the figure below, 69% of the factors that influence manufacturing firms to engage in corporate borrowing are growth factors. Companies want to grow. Other factors include beating industry competition, technology and innovation, diversification and product differentiation and others. Understanding the factors that influence corporate borrowing were in tandem with the objectives of this research hinging on the risks associated with corporate borrowing and the effects on the business for effective decision making.

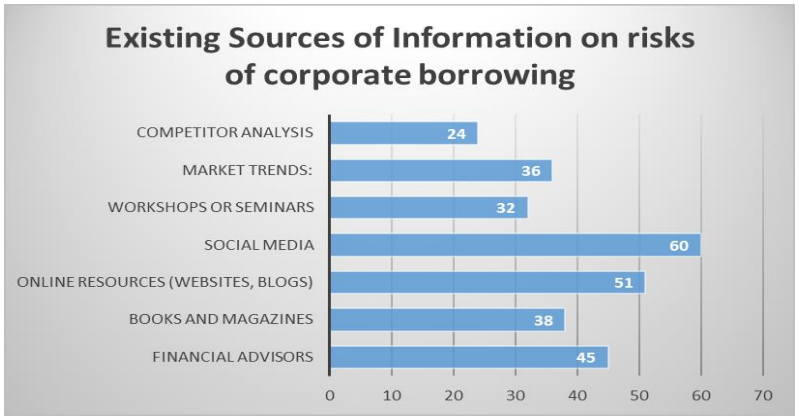

Figure 8a: Existing Sources of information on the risks associated with corporate borrowing
Source: Author's computation from the responses of the questionnaire

Social media and online sources prove to be effective in availing information regarding potential risks of corporate borrowing. Financial advisors, market trends and competition analysis have significantly provided information on corporate borrowing and the risks associated with it. From the research objectives it can be concluded that the finding based on the sources of information serially correlates with the risks of corporate borrowing. This implies that wrong

sources of information on corporate borrowing have got huge potential to misdirect the financial obligations of the firm. Hence it is critical that sources of information on corporate borrowing is devoid of skewness.

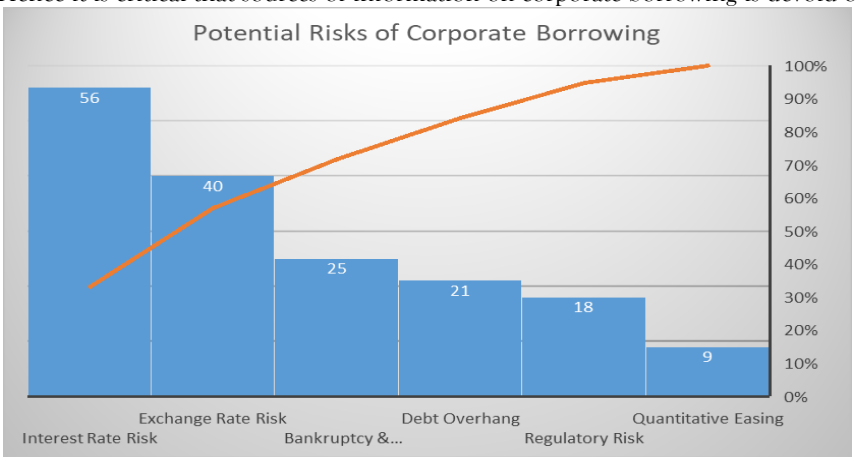

Figure 8b: Potential Risks of Corporate Borrowing
Source: Author's computation from the responses of the questionnaire

Figure 8 shows that there're potential risks which comes with corporate borrowing. These risks include interest rate risks, currency and exchange risks, Bankruptcy and insolvency risks, Debt overhang risk, Regulatory risks and quantitative easing to name a few. All these risks may influence the growth or downfall of the firm depending on the risk assessment and mitigation channels at play. The highest risk involved in corporate borrowing is the interest rate at 56% whereas the lowest risk in corporate borrowing is quantitative easing at 9%. The graph below shows the potential risks involved in corporate borrowing and the potential effects they pose on the performance of the business. From the Agency Cost theory examined in literature review, it posits that the higher the risk, the higher the return. However, the risk implication of interest rate and exchange rate fluctuations requires prudence in the assessment, mitigation and management of the risk. These issues create the bedrock in addressing the research objectives highlighted.

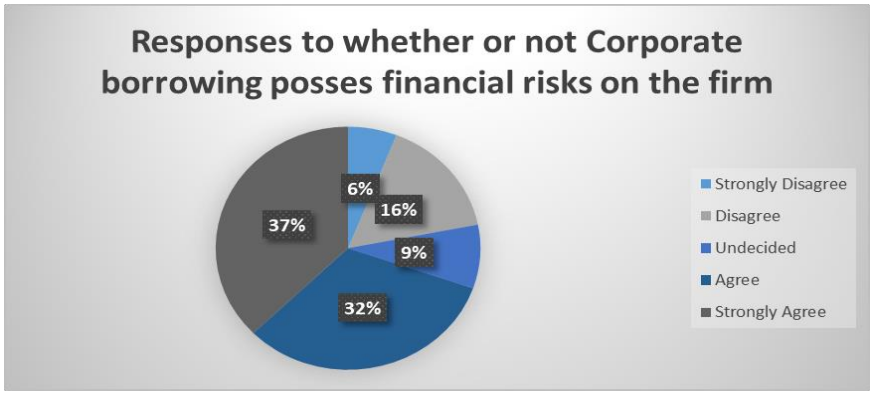

Figure 9: Responses to whether or not corporate Borrowing possess financial risks to the firm
Source: Author's computation from the responses of the questionnaire

From the figure above, 37% of the respondents strongly agreed that corporate borrowing is a risky undertaking on the firm. Thirty two (32%) of the respondents agreed that corporate borrowing poses a financial risk on the firm. Only 6% of the respondents strongly disagreed with the narrative whereas 16% disagreed. Nine (9%) were undecided and their responses were inconclusive. The findings in the below graph are conclusive in addressing the research objectives.

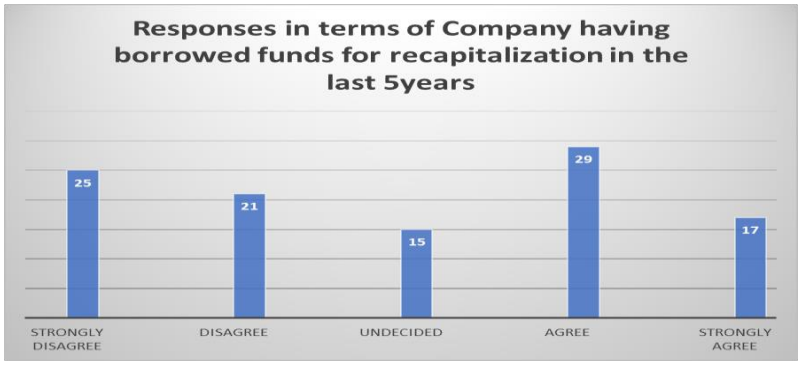

Figure 10: Responses in terms of company having borrowed funds for recapitalization in the last 5years.

Source: Author's computation from the responses of the questionnaire

Twenty nine (29) percent of the respondents agreed that their companies had engaged in corporate borrowing whereas 17 percent had strongly agreed to the vice. Twenty five (25) percent strongly disagreed that their companies serially engaged in corporate borrowing whereas 21 percent disagreed. About 15 percent of the respondents were indifferent about what to respond.

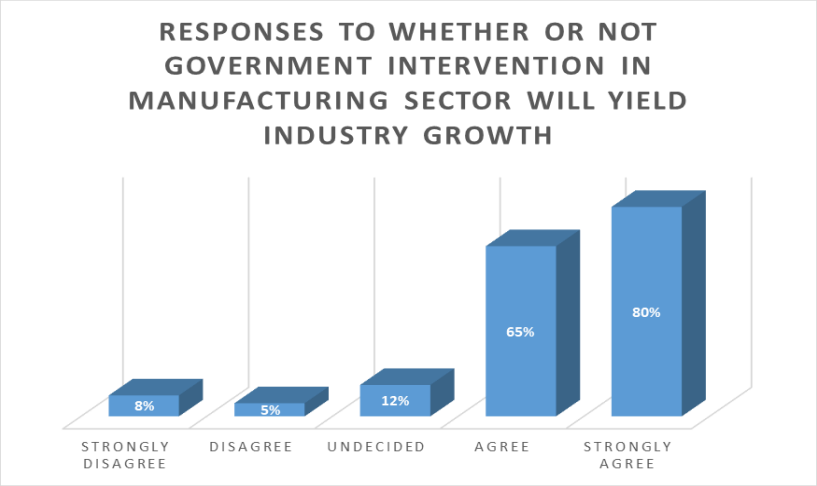

Figure 11: Responses to whether or not government intervention in the manufacturing sector will yield industry growth
Source: Author's computation from the responses of the questionnaire

Eighty (80) percent of the respondents affirmed that government must intervene and deliberately inject resources in the manufacturing sector as this will incentivize sector growth. According to the Zambia Association of Manufacturers (2020), the manufacturing sector has huge potential to change the economic landscape of the country and as such, it'd be prudent for the government to inject a significant amount of money in the manufacturing industry. Respondents cited the defunct Nitrogen Chemicals of Zambia (NCZ), Mulungushi Textiles of Kabwe, Kapiri Glass Factory, Dunlop Zambia, Landrover Vehicle Assembly in Livingstone to name a few as the most lucrative manufacturing companies needing urgent recapitalization. Sixty (65) percent of the respondents also agreed that government must intervene in the manufacturing industry. Only five percent of the respondents disagreed whereas 12 percent were undecided. The findings conclude that government should take keen interest in revamping the manufacturing sector and resolutely allocate funds to the sector during National budget presentations. This will yield positive macroeconomic performance of the sector.

4.2 Data Analysis Using Eviews 12.0

The first stage, involves testing for stationarity that is referred to as Augmented Dickey fuller (ADF) test based on regressors that are augmented by an extra differential term. The ADF is used to test for stationarity. The null hypothesis in this case is that $\alpha 1 = 0$ (i.e. unit root is present) and the alternative hypothesis $\alpha 1 < 0$ (i.e. no unit root). In order to obtain robust results, the use of Phillips-Perron unit test is included as it is a non-parametric statistical method, it analyse the serial correlation in the error term without adding a difference lagged difference term (Gujarati, 2003).

Table 2: ADF unit root tests

	ADF at Level			ADF First difference	
Variable	Model specification	t-statistic	Results	t-statistic	Order of integration
Log (YBGt)	Intercept & trend	-2.840 (-3.558**)	Non-Stationary	-5.679 (-3.563**)	1
Log INTit	Intercept & trend	2.062 (-2.957**)	Non-Stationary	-4.836 (-2.960**)	1
Log EXCTit	Intercept & trend	6.422 (-1.952**)	Non-Stationary	-1.283 (-1.952**)	-
Log ROA	Intercept & trend	-0.971 (-3.558**)	Non-Stationary	-4.514 (-3.574**)	1
Log INSTit	Intercept & trend	-1.713512 (-2.957**)	Non-Stationary	-4.922 (-2.960**)	1
INTERCEPT	Intercept & trend	7.371344 (-1.952**)	Non-Stationary	-1.791 (-1.952**)	-

Source: author's compilation & values obtained from eveiws. ***1% **5% *10% represents significant level respectively.
Note: The numbers in the parentheses are critical values at 5% level of significance.

Table 2 shows the ADF unit root tests. The null hypothesis had the presence of unit root in both variables at level and 1st difference (Intercept, intercept & trend and none) when tests were carried out. To further establish stationarity the series were integrated at order one, I (1) and at none both in level and 1st difference of which the test static are greater than the critical values both in YBGTit and INTit at 5% significant level thus *H*0 cannot be rejected. At (intercept and intercept & trend) the variables at 1st differenced show the test statistic value is less than the critical values (5% significant level), thus *H*0 is rejected and conclude that the two variables are stationary in first differences.

Table 3: ANOVA for liquidity ratio as the dependent variable when firm acquires funds for investment

ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.231	3	1.41	4.438	0.008
Residual	14.617	46	0.318		
Total	18.848	49			

Dependent variables: Liquidity ratio
Predictor variable: (constant) long term debt, short term debt, interest rate

The analysis of variance (ANOVA) indicates scored F value of 4.438 the critical at 5% significance level was 2.54 since the F calculated is greater than F critical (value=4.438) this shows that entire model was significant.

4.3 Regression analysis report for return on asset as the dependent variable after the firm borrows

The model summary in Table 4 shows a coefficient of determination (R squared) value of 0.352 suggesting a positive but weak correlation of the combined contribution of long term debt ratio and short term ratio. This means that model explains 35.2 % of the variation of the dependent variable (return on asset).

Table 4: Model Summary for return on asset as the dependent variable

Model Summary

					Change Statistics			
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
Summary	0.593	0.352	0.309	0.41581	0.352	8.318	3	46	0

4.4 Testing for Cointegration

In economics, two variables are said to be cointegrated if there is a long term equilibrium or relationship between them (Gujarati, 2003). Testing for Cointegration is sometimes conducted for two or more series that are having the same stochastic trend in common. The regression analysis for this study was used to reveal the long run relationships among time series variables. (Stocks & Watson, 2012). In this case, the study used the Cointegration technique to verify Cointegration between the series of data.

If the time series were integrated in the same order, then it would lead to the estimation of Cointegration using the Johansen co-integration test relation. According to this approach, lags of both the explanatory and response variables have one lag of the residual from the co-integrating regression. Two tests have been famously adopted by econometricians namely: the Augmented Engle-Granger (AEG) and the Johansen test for Cointegration. The AEG uses critical values calculated by Engle and Granger to test for cointegration. On the other hand, when using the VAR model, the Johansen test for cointegration would be used to solve the problem of many variables.

Table 5: Johansen Cointegration Test Based on Trace and Maximum-Eigen Values

Hypothesis No of Ce(s)	Eigen Value	Trace Statistics	0.05 critical value	Maximum Eigen value	0.05 critical value
None	0.438501	19.14206	15.49471	17.89152	14.26460
At most 1	0.039537	1.250534	3.841466	1.250534	3.841466

Table 6: Pairwise Granger Causality Tests

Date: 27/11/24 Time: 23:31
Sample: 2010 - 2023
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
YBGTit does not Granger Cause Risk	30	0.43195	0.6538
Risk does not Granger Cause YBGTit		9.26549	0.0009

The Granger causality test was conducted to compute the linear causation between business growth and risk of corporate borrowing. Causality test does not necessarily suggest exogeneity on account of risk and growth in the sense that the result obtained do not show a precise relationship of variables either been positive or negative. The null hypothesis states that risk does not Granger Cause business growth, hence is not rejected at 5% level of significance. As widely suggested by many economist scholars in the literature reviews, it shows that risk of borrowing money for investment and business growth relate inversely, (the company does not grow well in the midst of high interest rate on borrowed funds). In any case, the result reveals the direction of causality between growth and risk at lag two (2). Following the result in table 6, it can be concluded that Uni-directional causality (no causality) run from risk to business growth at lag two (2).

The outcome was that gross fixed capital formation lagged two periods had a negative and significant impact on manufacturing output growth, whilst money supply by the lenders lagged one period and three period as well as employment lagged three periods and had a positive and significant impact on output growth in the short run. Similarly, gross fixed capital formation in the current period had lagged two periods as well as net exports lagged one period and two periods with a negative and significant effects on output growth whilst exchange rate and employment had positive and significant effects. The error correction term for both sectors was negative but significant.

4.5 Testing for autocorrelation

Table 7: Autocorrelation

Test	Model 1	Model 2
Model significance		
F Test	357.85	2252
Probability	0.0000	0.0000
Conclusion	significant	significant
Heteroscedasticity (Breusch-Pagan-Godfrey Test)		
Chi2	0.87	0.23
Probability	0.3503	0.6309
Conclusion	No Heteroscedasticity	No Heteroscedasticity
Autocorrelation(DWatson and Durbins alternative test)		
DW	2.550873	1.993847
F test	- 3.758	0.002
Probability	0.0649	0.9652
Conclusion	No Serial Correlation	No Serial Correlation
Goodness of Fit (R-Square Test)	0.64	0.7946
Conclusion	Well fit	Well fit
Stability (CUSUM Graph)		
Conclusion	Model is stable	Model is stable

The higher the value of R.Sq and Adjusted R.Sq, the more fit and better the model is. This model was found to be a good fit. In order to determine the level of autocorrelation in the model, the Durbin-Watson statistic was used.

Assumptions

If DW<2, there is positive autocorrelation and

If DW>2, there is negative autocorrelation.

If DW=2, there is no autocorrelation and the model is a good fit.

For this study, the Durbin-Watson stat of 2.550873 in model 1 and 1.993847 in model 2 showing a negative autocorrelation. Based on the post estimation tests above, there was no autocorrelation and heteroscedasticity in both models, both models were significant and well fit and the residuals of the models were normally distributed.

The results from both models showed that output growth of the manufacturing sector converged towards a long run equilibrium. This was evidenced by the error correction terms which were both negative and significant for the sector. The speed of adjustment towards long run equilibrium in the manufacturing sector was 80 percent and 71 percent for the service sector. This means that 80 percent and 71 percent of the disequilibrium in the respective sectors was dissipated in a year and 20 percent and 29 percent carried over to the next year in the two sectors respectively. Further, it took approximately 5 months in the manufacturing sector and 61/2 months in the service sector to correct half the

disequilibrium.

4.6 Summary

The Structural vector autoregressive Model (SVAR)

Many studies surrounding corporate finance have predominantly used the structural vector autoregressive (SVAR) model. The structural vector autoregression (SVAR) model is a structural-form relationship deduced from the reduced-form VAR. The model can be either contemporaneous or regressed in the long run depending on whether economic theory suggests that the shocks are either temporary or permanent in nature (McCoy, 1997:7). Therefore, it can be said that a VAR is the reduced form of a general dynamic structural model. The relationship between a reduced-form VAR and SVAR is presented by a dynamic structural model. VAR is a model with multiple dependent variables that depend on its own lags of other variables (Suslov, Ibragimov, Talisheva, and Ciplakov, 2005).

Unit Root Test

The main purpose of applying a unit root test in this analysis was to observe whether or not the series had a trend. The variable will be said to be stationary if and only if it does not contain a unit root. Granger and Newbold (1974) stated that the regression was likely to be spurious which had high R^2 (goodness of fit), and statistically significant coefficients and the results were without any economic meaning when the variables were non-stationary. protection.

5 Summary, Conclusion and Recommendations

5.1 Summary of the Findings

The study analysed the relationship between business growth and the risks of corporate borrowing by the manufacturing companies in Lusaka using time series date from the World Banks World Development Indicators (WDI) and Africa Development Bank Indicators (AfDI). The aim of this study was to achieve two specific objectives. First was to determine the risks associated with corporate borrowing on financial performance of Manufacturing firms in Lusaka. Second, to establish the effects of debt financing on business growth of Manufacturing firms in Lusaka and based on the findings, the study also drew policy implications. The study also examined that; how does corporate borrowing respond to a change in interest rates, exchange rate fluctuations government policy and political factors?

Using economic and empirical analysis, the study showed the relationship between the risks of corporate borrowing and business growth. The study provided some policy implications for the Zambian economy. This Chapter therefore discusses the empirical results, policy implications and provides suggestions for future study.

5.2 General Conclusions

This study investigated the risks of corporate borrowing and manufacturing companies within Lusaka, using time series data from 2010 - 2023 and employing Augmented Dickey Fuller Unit Root Test, Johansen cointegration test and the Pairwise Granger Causality test. In this study, ARDL was used as basic method and also Johansen and Juselius (1990) maximum-likelihood cointegration tests were used as primary methods for the study of results. The estimated coefficients showed that in the short-run, real effective exchange rates and interest rates shaped the risks of corporate borrowing for the manufacturing companies in Lusaka Zambia. In the long-run, the effect of the debt burden, debt overhang, insolvency risk and the dummy variable have on business growth were statistically significant. From the long-run coefficient statistic, results showed that the total debt burden had a negative effect on manufacturing firm growth while interest rate and real effective exchange rates didn't have significant impact on manufacturing value addition in the long-run. The adjustment coefficient was low as per findings of the model. From the findings and based on the research objectives, corporate borrowing offers significant growth potential for the firms but introduces risks that must be carefully managed. Businesses need a balanced approach, ensuring debt levels align with their risk tolerance and growth strategy. Proper financial planning, risk assessment, and governance are crucial to leveraging debt effectively

5.3 Policy Implications

Manufacturing is pivotal to Zambia's economic diversification, yet many companies struggle with access to affordable financing. From the findings and based on the research objectives, enhancing corporate borrowing involves creating an enabling environment that encourages lending and ensures businesses can effectively utilize borrowed funds for growth. The risks Associated with Corporate Borrowing in Lusaka's Manufacturing Sector include, Interest Rate Risk that is, fluctuating interest rates can increase borrowing costs. If a company borrows at variable interest rates, any upward movement in rates directly raises its repayment burden, potentially affecting profitability and cash flow stability (Mwale, 2021). This risk is particularly significant for manufacturing firms that rely heavily on fixed capital investments. Default Risk whereby the company struggles to meet repayment obligations if revenue expectations fall short due to economic downturns or operational challenges. In Lusaka, some manufacturing firms face challenges such as power outages and supply chain disruptions, which can impact their ability to generate consistent revenue (Phiri & Banda, 2020).

The Liquidity Risk can also strain a company's liquidity, leaving it unable to cover short-term obligations. This is especially problematic in manufacturing, where significant working capital is often tied up in inventory or raw materials (Mulenga et al., 2020). If borrowing is denominated in foreign currencies, exchange rate fluctuations can increase the repayment

amount in local currency terms. Given Zambia's reliance on imports for machinery and raw materials, manufacturing firms exposed to foreign currency debt are particularly vulnerable to this risk (World Bank, 2021).High debt levels can limit a company's operational flexibility. Resources that could be allocated to innovation, expansion, or workforce development may instead be diverted toward debt servicing. This situation can hinder long-term growth and competitiveness (Zambia Development Agency, 2020). Changes in financial regulations or economic policies, such as interest rate caps or inflation control measures, can impact borrowing conditions. The manufacturing sector in Zambia operates in an environment of policy shifts and economic volatility, further complicating debt management (Bank of Zambia, 2022). The manufacturing sector in Zambia has experienced challenges over the years, significantly affecting its performance. While the industry plays a crucial role in the nation's economic strategy, contributing about 9.4% to GDP, its share has declined from the 30% recorded in the late 1980s. Factors such as policy inconsistencies, high energy costs, outdated technologies, and limited access to affordable long-term financing hinder growth (Bawmanlaw.com, 2023).

Several once-prominent companies have ceased operations due to these challenges. For example, Mulungushi Textiles faced repeated closures due to financial difficulties and infrastructure decay, while the Nitrogen Chemicals of Zambia (NCZ) went defunct partly due to mismanagement and economic constraints (Prospero Zambia, 2023). The government is making efforts to revitalize the sector. Initiatives include establishing Multi-Facility Economic Zones (MFEZs) to attract investment, offering tax incentives, and promoting supplier development programs to strengthen local supply chains. These measures aim to enhance competitiveness and diversify manufacturing output, particularly in agro-processing and mining-related industries. By creating a conducive financial and regulatory environment, the Zambian government can enhance corporate borrowing in the manufacturing sector. Strategic interventions, including affordable credit access, regulatory reforms, and infrastructure improvements, will empower manufacturers to leverage borrowing for sustainable growth and economic contribution.

5.4 Recommendations

The limitations of this study were related to insufficient data points which did not allow for the inclusion of other variables in the model that could have been of interest to the author such as private sector lending institutions. This is because adding many variables on a limited data set would have resulted in loss in degrees of freedom given the methodology adopted for the study. Arising from this study, the following directions for future research in Finance were recommended as follows: First, this study focused on all the 30 listed companies on the Lusaka Securities Exchange. Therefore, generalizations could not adequately be extended to every listed company as they have varying industry risk and asset structure. Based on this fact among others, it is therefore, recommended that a narrow-based study covering a specific segment or company be done to find out the Impact of Capital Structure on Performance. Similar studies to this can also be replicated in a few years to come to asses if the Impact of corporate borrowing and financial Performance of the firms listed at the Lusaka Securities Exchange has changed as the Lusaka Securities Exchange continues to change. Also, the effect of capital structure on corporate strategy is also another area of interest which can be under the area of further research and a more intense study along that area can come in handy.

5.4 Areas of further research

This study focused on the sample size of 30 listed companies on the Lusaka Securities Exchange. These results cannot address specific risk associated with different industries across the economy. Based on this fact among others, it is therefore, recommended that a narrow-based study covering a specific industry to find out the impact of corporate borrowing be conducted in the foreseeable future.

Declaration of Competing Interests

The authors declare that they are not aware of any competing financial interests or personal relationships that may have influenced the work described in this document.

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Ethical considerations

The article followed all ethical standards appropriate for this kind of research.

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Appendix 1: Questionnaire

Questionnaire on the risks associated with corporate borrowing for the manufacturing companies in Lusaka
Section 1: General Information Demographic Details

* Indicates required question

What is your Age? *
Mark only one oval.
- 20 -35
- 36-50
- 51-70
- Other:

What is your Gender ? *
Mark only one oval.
- Female
- Male

What is your Marital Status ? *
Mark only one oval.
- Single
- Married
- Divorced
- Widowed

What is your level of education? *
Mark only one oval.
- Less than High School
- High School Graduate
- Some College/Trade School
- Bachelor's Degree
- Postgraduate Degree

Section 2: Existing Sources of Information on risks of corporate borrowing
Where do you currently seek information on risks associated with corporate borrowing? (Select all that apply)
Check all that apply.
- Financial Advisors
- Books and Magazines
- Online Resources (websites, blogs)
- Social Media
- Workshops or Seminars
- Competitor analysis:

Section 3: Organizational Financial Planning Attitude and Practices
On a scale of 1 to 5, how would you rate your organization's attitude towards *financial planning? (1 being very negative, 5 being very positive)
Mark only one oval.
1 2 3 4 5
very positive

Do you currently have a financial plan in place for the growth of your organization? *
Mark only one oval.
- No
- Yes

If yes, what components of the growth plan does your organization in place? *
(Select all that apply)
Check all that apply.
- Budgeting
- Saving
- Investing
- Demand Forecasting
- Debt Management
- Insurance Other:

How often do you review and update your organizational financial plan? *

Mark only one oval.

- Monthly
- Quarterly
- Annually
- Rarely
- Never

Section 4: Reasons for Failing to identify risks associated with corporate borrowing

10. **If you fail to mitigate the risks of corporate borrowing, what are the main reasons? (Select all that apply)**

Check all that apply.

- Lack of knowledge
- Lack of time
- Lack of interest
- Financial insecurity
- Procrastination Other:

Section 5: Enhancing a Culture of proper usage of borrowed funds

What initiatives or strategies do you think could cushion the impacts of the risks associated with corporate borrowing?

How effective do you think the information regarding risks of corporate borrowing is made available to the borrowers by the financial institution to aid sound decision making? (Scale of 1 to 5, 1 being not effective, 5 being very effective)

Mark only one oval.

1 2 3 4 5

Would you be willing to participate in community-based workshops or seminars about how corporate borrowing affect businesses?

Mark only one oval.

- No
- Maybe
- Yes

Section 6: Additional Comments

14. **Do you have any additional comments or suggestions regarding the risks associated with corporate borrowing for your company?**