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BANK CREDIT FINANCING ON MANUFACTURIMG SECTOR PERFORMANCE IN CASE OF DEBREMARKOS TOWN

Presented in Partial Fulfillment of the Requirements for the Degree of Masters of Business Administration (MBA)

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DECLARATION

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Acronyms

SMEs – small and medium enterprise

GTP - Growth and Transformation Plan

GDP – Growth domestic product

AC – availability of credit

IR – interest rate

LOP – loan processing time

CTC – credit time condition

BCR – bank credit risk

CR – collateral requirement

MSP – manufacturing sector performance

ANOVA- Analysis of variance

SPSS- Statistical Package for the Social Sciences

VIF – variance inflation factor

Abstract:

This research examines the impact of bank credit financing on the performance of the manufacturing sector in Debremarkos Town. The manufacturing sector plays a critical role in the economic development of developing regions, and access to financial resources, particularly through bank credits, is essential for its growth and competitiveness. The study explores the availability and accessibility of bank loans for manufacturing businesses, analyzing how financial support influences operational efficiency, productivity, and overall business performance in Debremarkos. Using a mixed-method approach, the research combines quantitative data from surveys with qualitative insights gathered through interviews with business owners, bank managers, and policymakers. The results indicate that while bank credit is crucial for the expansion and modernization of manufacturing enterprises, challenges such as high-interest rates, stringent lending conditions, and limited financial literacy hinder the full utilization of bank loans. Additionally, the study highlights the disparities in financing access between large and small manufacturing businesses. The findings provide valuable recommendations for improving bank lending practices and enhancing the performance of the manufacturing sector, which could contribute to the sustainable economic development of Debremarkos Town and similar regions.

Keywords: Bank Credit Financing, Manufacturing Sector, Economic Development, Debremarkos Town, Financial Access, Lending Conditions, Operational Efficiency, Productivity, Business Performance.

CHAPTER ONE

INTRODUCTION

This chapter deals with background of the study, statement of the problem, general objective and specific objective of the study, research questions, research hypothesis, significance of the study, scope of the study, organization of the study. Each of the were presented consecutively

1.1. Background of the study

The manufacturing sector plays a crucial role in driving economic growth and development, especially in emerging economies like Ethiopia. Traditionally, Ethiopia's economy has been agrarian, with agriculture serving as the primary source of income for the majority of its population. However, recognizing the need for economic diversification, the Ethiopian government has set ambitious goals to transition from an agriculture-based economy to a more industrialized one. Central to this transformation is the manufacturing sector, which is expected to contribute significantly to GDP growth, job creation, and economic diversification, as outlined in Ethiopia's Growth and Transformation Plan (GTP).

Despite the pivotal role the manufacturing sector plays in Ethiopia's long-term development, access to finance remains one of the most significant barriers to growth. For manufacturers, especially small and medium-sized enterprises (SMEs), securing capital is critical for acquiring modern machinery, expanding production capacity, and investing in technology. Without access to sufficient financing, manufacturers are often unable to increase productivity, improve competitiveness, or meet the growing demands of both domestic and international markets.

In the context of Debremarkos Town, one of the key areas for industrial development in the Amhara region, the role of financial institutions in supporting manufacturing enterprises is significant. Debremarkos, like many other towns in Ethiopia, has witnessed the emergence of various financial products aimed at supporting industrial growth. These include loans for working capital, the acquisition of machinery, and financing for long-term investments. However, despite these offerings, many manufacturing businesses in the town continue to struggle with accessing adequate credit.

A major obstacle is the stringent collateral requirements that banks impose. Many small and medium-sized businesses in Debremarkos lack the necessary assets-such as land, buildings, or equipment-that banks typically require as collateral for loan approval. This problem is exacerbated in smaller towns where businesses often have limited access to substantial assets or lack a proven credit history. Consequently, many promising businesses are excluded from accessing financial resources, limiting their growth potential.

In addition to collateral challenges, high-interest rates present another barrier to accessing credit. Financial institutions in Debremarkos, like elsewhere in Ethiopia, charge interest rates that are often too high for small manufacturers to afford. High borrowing costs discourage businesses from seeking loans and create an unsustainable debt burden for those who do secure financing. As many manufacturers operate in a challenging economic environment, characterized by low purchasing power and limited market access, the high cost of borrowing further exacerbates the difficulties they face in competing effectively.

Furthermore, a significant challenge for many entrepreneurs is the lack of financial literacy. Many business owners in Debremarkos are not well-versed in financial concepts such as loan terms, interest rates, and collateral requirements, and often struggle to prepare solid business proposals for loan applications. This lack of financial knowledge hampers their ability to secure credit, further limiting their capacity to invest in needed technology or expand their operations.

Moreover, the broader economic and infrastructural challenges of Debremarkos Town, such as weak market linkages, limited industrial activity, and underdeveloped infrastructure, make it a higher-risk area for lending. As a result, financial institutions may be reluctant to extend credit to businesses in Debremarkos due to the perceived risk associated with lending in such regions. This creates a situation where businesses in more developed areas, such as Addis Ababa, are favored, while those in smaller towns like Debremarkos face significant disadvantages.

While Debremarkos has some financial products designed for the manufacturing sector, these offerings often do not cater to the specific needs of local businesses. Manufacturers require more flexible financing solutions that take into account the unique challenges they face, such as varying cash flow cycles, long-term investments, and seasonal production patterns. The absence

of such tailored financial products further hinders the growth potential of manufacturers in Debremarkos.

Despite these challenges, there is substantial evidence that access to bank credit can positively influence the performance of the manufacturing sector. Studies have shown that firms with access to finance are better able to invest in modern equipment, expand production capacity, and enhance overall operational efficiency. This, in turn, leads to higher productivity, improved competitiveness, and increased market share. In Debremarkos, improving access to finance could significantly enhance the capacity of local manufacturers, enabling them to compete more effectively in both local and international markets, contributing to regional and national economic growth.

This study aims to examine the relationship between bank credit financing and the performance of the manufacturing sector in Debremarkos. By investigating the challenges manufacturers face in accessing credit and the impact this has on their business performance, the research seeks to provide valuable insights into how financial support can foster greater growth, productivity, and competitiveness in the manufacturing sector. Furthermore, this study will contribute to the broader discourse on Ethiopia's industrialization goals and identify strategies for improving access to credit for manufacturers, particularly in smaller and underserved towns like Debremarkos.

1.2. Statement of the problem

The manufacturing sector in Ethiopia holds significant promise for driving the country's economic transformation. It is recognized as a key pillar for achieving industrialization, creating jobs, fostering export diversification, and promoting economic resilience. This potential is especially important in urban centers like Debremarkos, which is strategically located in the Amhara region and serves as an emerging hub for manufacturing activities. However, despite the sector’s importance, it continues to face several critical challenges that hinder its full development. Among these, the limited access to bank credit stands out as one of the most significant barriers that impedes the sector's growth, productivity, and competitiveness.

Access to finance is particularly essential for small and medium-sized enterprises (SMEs), which constitute the backbone of Ethiopia's manufacturing industry. SMEs are often more flexible and innovative but are also more vulnerable due to their limited financial resources. To expand production capacity, adopt advanced technologies, and enhance operational efficiency, manufacturers require access to substantial capital. However, accessing bank credit in Ethiopia remains a complex and difficult process, especially for SMEs. Banks often impose stringent conditions, including high interest rates, collateral requirements, and extensive documentation processes, which effectively exclude many manufacturers from securing loans. As a result, many businesses are unable to invest in the capital, equipment, or technology needed to grow and modernize, significantly limiting their ability to improve productivity and competitiveness in both domestic and international markets.

In addition to these barriers, financial literacy remains a persistent challenge in Debremarkos and other Ethiopian towns. Many manufacturers, especially in smaller towns, lack the knowledge and skills necessary to navigate the banking system effectively. This includes understanding complex loan agreements, interest rates, collateral requirements, and how to prepare sound business proposals for financing applications. This lack of financial literacy prevents many entrepreneurs from accessing formal financial services and pushes them toward informal lending sources, which are often unreliable and insufficient for fostering long-term business growth. Without the ability to secure affordable and appropriate financing, these businesses remain trapped in a cycle of underinvestment and stagnation.

Despite efforts by banks in Ethiopia to introduce financial products aimed at supporting the manufacturing sector, such as loans for capital investment and working capital, these offerings frequently fail to meet the diverse needs of different manufacturing subsectors. Industries such as textiles, food processing, construction materials, and furniture production each have unique challenges that cannot be addressed by generic loan products. Mulugeta (2020) found that the financial products offered by banks often do not align with the specific demands of these industries. For instance, a textile manufacturer may need financing for the acquisition of machinery and raw materials, while a food processor may require flexible loans that consider seasonal production cycles. The absence of tailored financing solutions means that manufacturers

are often unable to access the right type of capital for their unique needs, which limits their capacity to grow and innovate.

The relationship between access to bank credit and the performance of the manufacturing sector is complex and multifaceted. While many studies suggest that increased credit access can stimulate higher production levels and operational improvements, others stress the importance of the quality of the credit offered. Factors such as interest rates, repayment terms, and the type of collateral required all play a significant role in determining whether credit can effectively contribute to a business's growth. Briuk (2022) indicates that while credit access is crucial for growth, the terms of that credit can either facilitate or inhibit success, depending on how appropriate they are to the manufacturer's financial situation. These nuances are not fully understood in the Ethiopian context, and further research is needed to explore how the quality of credit interacts with broader economic and institutional factors to affect manufacturing outcomes.

In addition to the internal factors affecting credit access, Ethiopia's broader macroeconomic environment complicates the situation. Issues such as inflation, currency volatility, and regulatory uncertainty create an unpredictable business environment. These economic challenges deter both banks and manufacturers from engaging in long-term investment, as the perceived risk of lending increases. Research by Mesfin (2021) suggests that such instability reduces investor confidence and restricts the flow of capital into the manufacturing sector. However, there is limited research on how these macroeconomic factors specifically influence access to credit in regions like Debremarkos. Understanding this relationship is crucial for identifying unique constraints on credit access that are shaped by Ethiopia's economic context.

Moreover, Ethiopia's institutional framework governing both the banking and manufacturing sectors often contributes to the challenges faced by manufacturers. Bureaucratic inefficiencies in the banking system, coupled with the lack of effective coordination between banks and manufacturers, further slowdown the process of obtaining financing. Tamrat (2020) highlights that these inefficiencies significantly increase the time and cost involved in securing loans, making it even more difficult for small and medium-sized manufacturers to access financial resources. Despite efforts to streamline banking processes, these systemic issues persist and

continue to frustrate business owners. Furthermore, there is a lack of empirical studies examining how institutional reforms could improve access to financing for the manufacturing sector. Although international studies suggest that regulatory reforms and improved coordination can enhance credit access, research specifically focused on Ethiopia's banking and manufacturing sectors remains limited.

Additionally, there is a notable gap in understanding the financial needs of different manufacturing subsectors in Debremarkos. Each subsector requires specialized financial solutions, yet most research focuses on general credit access issues without exploring the distinct needs of specific industries. For example, the financial needs of a food processing company may differ substantially from those of a construction materials manufacturer. Kebede (2023) emphasizes that sector-specific financing can improve access to credit and lead to better manufacturing outcomes, but this approach has not been fully explored in Ethiopia. Furthermore, there is limited attention to how financial literacy influences access to credit. Many entrepreneurs, especially in smaller towns like Debremarkos, struggle to prepare strong loan applications due to a lack of financial knowledge, further hindering their chances of securing formal credit.

The existing literature fails to integrate these various factors into a cohesive understanding of how bank credit financing impacts manufacturing performance in Ethiopia. While some studies highlight the challenges of credit access, economic instability, and institutional inefficiencies, there is a lack of comprehensive research on how these factors interact to shape manufacturing outcomes in regions like Debremarkos. Moreover, there is limited exploration of how tailored financial products for specific manufacturing subsectors could help overcome the barriers faced by SMEs. The need for further research on how these dynamics affect credit access and manufacturing performance in Ethiopia, especially in smaller towns, is evident.

This study aims to bridge these gaps by examining the relationship between bank credit financing and the performance of the manufacturing sector in Debremarkos. The research will focus on how access to finance impacts key performance indicators such as productivity, technological adoption, and business growth. Additionally, it will investigate how factors such as financial literacy, macroeconomic conditions, and institutional inefficiencies shape the credit

landscape in Debremarkos. Ultimately, this research will offer practical recommendations for policymakers, financial institutions, and manufacturers to improve access to credit and create an environment conducive to sustainable growth in Ethiopia's manufacturing sector.

1.3. Research question

1. How does the availability of bank credit affect the performance of manufacturing firms in Debremarkos Town?
2. What impact do interest rates on bank loans have on the performance of manufacturing firms in Debremarkos Town?
3. How does the loan processing time affect the performance of manufacturing firms in Debremarkos Town?
4. To what extent do the terms and conditions of bank loans influence the performance of manufacturing firms in Debremarkos Town?
5. How does bank credit risk influence the performance of manufacturing firms in Debremarkos Town?
6. What role do collateral requirements play in determining the success or failure of manufacturing firms' access to financing and their subsequent performance in Debremarkos Town?

1.4. Objective of the study

1.4.1. General objective

The main objective of the study is to examine the relationship between bank credit financing and the performance of the manufacturing sector in Debremarkos, with a particular focus on how factors such as the availability of credit, interest rates, loan processing time, credit terms and conditions, bank credit risk, and collateral requirements influence the sector's growth, profitability, and overall performance.

1.4.2. Specific objective

- To assess the effect of the availability of bank credit on the performance of manufacturing firms in Debremarkos.
- To examine the impact of interest rates on the operational performance and financial health of manufacturing firms in Debremarkos
- To evaluate the influence of loan processing time on the operational efficiency and competitive edge of manufacturing businesses in Debremarkos
- To explore the effect of credit terms and conditions on the financial performance and risk management of manufacturing firms in Debremarkos
- To analyze the impact of bank credit risk policies on the lending behavior and performance outcomes of manufacturing firms in Debremarkos
- To examine the role of collateral requirements in the ability of manufacturing firms to access financing and its subsequent impact on their performance in Debremarkos

1.5. Scope of the study

The study will examine the impact of bank credit financing on the performance of the manufacturing sector in Debremarkos, focusing specifically on the role of Debremarkos Town in providing financial support to local manufacturers. A case study approach will be employed, with data collected from manufacturing firms in the region, particularly those that rely on bank financing for operations. The research will analyze the influence of credit access on key manufacturing outcomes such as production capacity, operational efficiency, profitability, and investment decisions.

Additionally, the study will explore the challenges faced by manufacturing firms in obtaining credit, including high interest rates, collateral requirements, and bureaucratic barriers. The research will also assess the broader implications of credit access on growth strategies and expansion potential for local manufacturers. Finally, the study will offer policy recommendations aimed at improving the accessibility of bank credit for manufacturing firms and enhancing collaboration between financial institutions and the manufacturing sector.

The findings will contribute to a deeper understanding of the role of financial support in fostering industrial growth and economic development in Debremarkos and similar regions in Ethiopia.

1.6. Significance of the study

The study on bank credit financing and its impact on the performance of the manufacturing sector in Debremarkos Town is significant for several key reasons. As Ethiopia seeks to bolster its industrialization efforts, understanding how access to bank credit influences manufacturing performance is crucial for achieving sustainable economic development. The research will provide valuable insights into the relationship between credit availability and key performance metrics such as production capacity, operational efficiency, and profitability within the manufacturing sector. By examining how access to credit affects these metrics, the study will help manufacturers optimize their investment strategies, enhance operational processes, and improve their competitiveness in both local and international markets.

Additionally, the findings of this study will be beneficial for policymakers and financial institutions, enabling them to design tailored financial products and policies that better address the specific needs of the manufacturing industry. Understanding the challenges manufacturers face in securing financing will allow policymakers to develop more inclusive and supportive credit systems, facilitating greater access to financing for manufacturers, particularly small and medium-sized enterprises (SMEs).

On a broader level, this study aims to contribute to the creation of a more robust financial ecosystem that supports the sustainable growth and long-term development of the manufacturing sector in Debremarkos and similar regions in Ethiopia. By shedding light on the role of bank credit in enhancing industrial growth, this research will provide actionable insights that can inform future efforts to improve financial accessibility and strengthen the banking sector in Ethiopia.

Ultimately, the research will contribute to improving economic policies, fostering innovation in financial services, and enhancing the overall business climate in Ethiopia, particularly in Debremarkos, helping to build a more conducive environment for manufacturing growth.

1.7. Organization of the study

This study is organized into five main chapters. Chapter 1 provides an introduction, outlining the research background, objectives, and significance of the study. It establishes the context of bank credit financing and its relevance to the manufacturing sector in Debremarkos Town, with a particular focus on the role of local banking institutions. The chapter concludes with the research questions and hypotheses that will guide the investigation. Chapter 2 presents a comprehensive literature review, examining existing theories and previous studies related to bank financing and manufacturing performance. This section aims to identify gaps in the literature and justify the need for this research. Chapter 3 details the research methodology, including the research design, sample selection, and data collection techniques. Chapter 4 analyzes the data, presenting findings and discussing their implications. Finally, Chapter 5 concludes the study by summarizing key insights and offering recommendations for stakeholders in both the banking and manufacturing sectors.

CHAPTER TWO

LITERATURE REVIEW

2. Introduction

Bank credit is an essential driver of economic growth, particularly for the manufacturing sector, which plays a crucial role in the development of many economies. It enables manufacturers to finance capital-intensive investments, modernize technology, and expand production capacity. In developing countries like Ethiopia, where capital markets are underdeveloped and alternative sources of financing are limited, access to bank credit becomes even more critical for manufacturing firms. These firms often rely heavily on financial institutions to provide them with the liquidity required to invest in machinery, technology, skilled labor, and infrastructure. Understanding the relationship between bank credits and manufacturing performance is vital for policymakers, financial institutions, and business owners alike. The purpose of this literature review is to examine theoretical frameworks and empirical studies that investigate how bank credit influences the growth, efficiency, and competitiveness of manufacturing firms, especially in developing countries.

Bank credit is not only crucial for the financial health of manufacturing firms but also plays a significant role in fostering innovation, improving productivity, and promoting industrialization. Credit allows firms to acquire new technologies, scale their operations, and respond to changing market demands more effectively. In developing economies such as Ethiopia, where the industrial sector is central to economic transformation, understanding how to improve access to credit can have long-term benefits for national economic growth. Financial intermediaries like banks are key to mobilizing resources for investment, but their ability to provide credit is influenced by the stability and efficiency of the banking sector, regulatory policies, and the broader economic environment. This literature review thus explores the role of bank credit, theoretical frameworks explaining the dynamics of bank financing, and empirical studies that highlight the challenges and benefits of credit access for manufacturers in developing countries.

2.1. The role of bank credit in manufacturing

Bank credit is a vital resource for manufacturing firms, allowing them to finance long-term investments in infrastructure, technology, and human capital. Access to bank loans enables manufacturers to expand production capacity, adopt modern technologies, and optimize their supply chains. According to Diamond (2007), banks serve as intermediaries, channeling funds from savers to borrowers and thereby facilitating economic activity. For manufacturers, access to credit is often necessary for securing the funds required to purchase new machinery, invest in research and development (R&D), and hire skilled workers. Moreover, credit provides firms with the flexibility to respond to changing market conditions, improve product quality, and introduce innovations.

The role of bank credit extends beyond simple financial support. Research by Beck et al. (2010) underscores the importance of monetary policy and banking sector reforms in enhancing credit availability to the manufacturing sector. They argue that, in developing countries, banking reforms that improve credit access can stimulate higher levels of investment in manufacturing. In Ethiopia, for instance, targeted credit facilities and sector-specific lending programs have been implemented to support the growth of the manufacturing industry. The Ethiopian government recognizes the importance of industrialization for economic development, and as such, access to credit has been prioritized as a key component of national industrial policy.

For small and medium-sized enterprises (SMEs), access to credit is particularly important. These firms often face challenges in accessing finance due to their limited collateral and financial track records. Mavridis (2007) explains that SMEs in developing economies tend to be excluded from conventional financing channels due to the high risk perceived by banks. However, targeted credit facilities, such as government-backed loans or microfinance initiatives, can help bridge this gap and support the growth of SMEs in the manufacturing sector. The availability of bank credit enables these firms to increase their productivity, expand their market reach, and compete with larger enterprises. For Ethiopia, where SMEs constitute a significant portion of the manufacturing sector, improving access to bank credit can drive substantial growth and employment generation.

Access to credit also affects the innovation capacity of manufacturing firms. As highlighted by Beck and Demirgüç-Kunt (2006), firms that have better access to credit are more likely to invest in innovative processes and technologies, leading to productivity improvements. In Ethiopia, where industrial modernization is a key national objective, the ability to secure loans for innovation and technology adoption is crucial for sustaining long-term economic growth. Manufacturers who invest in advanced technologies can improve product quality, reduce production costs, and enhance competitiveness in both local and international markets.

Despite the advantages, the availability of bank credit is not guaranteed. In many developing countries, including Ethiopia, access to bank credit is constrained by factors such as high interest rates, collateral requirements, and inadequate financial infrastructure. These barriers limit the ability of firms to secure the financing they need for growth and development. Research by Beck et al. (2008) suggests that financial deepening and banking reforms can increase access to credit, thus promoting economic development in the manufacturing sector. To improve the availability of credit, it is crucial for both banks and policymakers to address the challenges that prevent manufacturers from accessing financing.

2.1.1. Credit as a Growth Catalyst

Credit has long been recognized as a key driver of economic growth. According to the Keynesian theory of investment, increased investment leads to higher output and growth. For manufacturing firms, credit acts as a catalyst for expansion and innovation. With access to bank loans, firms can invest in capital goods such as machinery, modern technologies, and research and development, which are essential for increasing productivity and output. The International Monetary Fund (IMF) (2021) has highlighted that improved access to credit in developing countries leads to better investment decisions, which, in turn, contribute to higher levels of growth and development.

The impact of credit on growth is particularly important for developing economies like Ethiopia, where industrialization is seen as a critical element of national economic strategy. The government of Ethiopia has placed significant emphasis on the development of the manufacturing sector, viewing it as central to the country's economic transformation. By

providing manufacturers with better access to credit, banks can help fuel industrial growth, create jobs, and foster economic development. Beck et al. (2010) argue that well-designed banking sector reforms can improve the availability of credit, which in turn can lead to higher levels of manufacturing productivity and innovation.

In Ethiopia, several programs have been implemented to improve access to finance for manufacturers, including government-backed loans, industrial financing programs, and credit guarantees. These initiatives aim to reduce the barriers that prevent manufacturers, particularly small and medium-sized firms, from securing the capital needed to expand operations and invest in new technologies. According to the Ethiopian Development Research Institute (EDRI) (2023), such credit facilities have had a positive impact on manufacturing firms by enabling them to enhance operational efficiency, reduce costs, and increase their production capacity.

Bank credit also plays a critical role in enabling manufacturers to adapt to changing market demands. Innovation is vital for firms to stay competitive in the global marketplace, and credit provides the funds necessary for investment in R&D and new product development. The World Bank (2015) highlights that access to credit is one of the key factors that drive technological innovation and productivity improvements in the manufacturing sector. Manufacturers that can secure financing are better equipped to invest in new processes, adopt modern technologies, and respond to shifts in consumer preferences. This capacity for innovation is particularly important in developing countries like Ethiopia, where industries must modernize and compete with both regional and global players.

However, it is important to note that credit availability alone is not sufficient to guarantee growth. It must be accompanied by sound monetary policies, banking sector reforms, and a favorable business environment. Banks must also implement effective credit risk assessment mechanisms that ensure loans are allocated to viable firms with the potential for growth. Moreover, manufacturers must be able to effectively utilize the credit they receive to invest in the right projects that enhance their competitiveness and productivity. As Beck and Demirgüç-Kunt (2006) argue, credit must be part of a broader strategy to support industrialization and economic development.

2.2. Theoretical frameworks

The theoretical framework for this study focuses on the principles that explain the relationship between bank credit financing and the performance of the manufacturing sector. Understanding these theories is essential for contextualizing the empirical findings and illustrating how bank financing influences manufacturing outcomes.

2.2.1. Financial Intermediation Theory

The role of financial intermediaries is especially significant in economies like Ethiopia, where banking penetration is still low, and many firms lack the capacity to access finance through other means. According to Diamond (2007), efficient financial intermediation reduces the costs and risks associated with borrowing, thereby fostering investment and economic growth. Developing countries with underdeveloped capital markets and high barriers to entry for alternative financing sources benefit immensely from bank credit. In Ethiopia, Debremarkos Town s are the primary institutions that provide financial services to the manufacturing sector. For many manufacturing firms, especially small and medium-sized enterprises (SMEs), bank loans represent a lifeline for expansion and technological upgrade.

Additionally, financial intermediation also supports risk diversification, which allows banks to spread lending risks across different sectors, firms, and projects. This is especially beneficial for manufacturing firms in Ethiopia, where market uncertainties and risks of default are higher than in more developed economies. By providing loans to a diversified set of borrowers, banks can lower their overall risk exposure and contribute to the stability of the financial system. Beck et al. (2010) argue that financial intermediation in the form of bank lending has a multiplier effect on the economy, especially in sectors like manufacturing, where investment leads to increased productivity, output, and employment.

In the context of Ethiopia, bank credit facilitates technology adoption and enhances the capacity of manufacturing firms to innovate. As Ayyagari et al. (2011) have noted, manufacturing firms that are better connected to credit markets are more likely to invest in new technologies, thus boosting their competitiveness both locally and globally. Banks that offer financing packages

tailored to manufacturing firms can significantly impact the industrial development of a country like Ethiopia, which aims to increase its share of manufacturing in the overall economy.

2.2.2. Capital Structure Theory

Capital Structure Theory, introduced by Modigliani and Miller (1958), suggests that firms choose an optimal mix of debt and equity financing to minimize their cost of capital and maximize firm value. According to this theory, the structure of a firm's financing—how much is financed through debt (loans) and how much through equity (ownership)—affects its risk and performance. The theory posits that, in an ideal world, a firm can select its capital structure based on the cost of debt and equity, regardless of market conditions. However, in the real world, especially in developing economies like Ethiopia, several external factors influence firms' capital structure choices.

Manufacturing firms in Ethiopia often face challenges in accessing equity financing due to the underdeveloped nature of the capital markets. As a result, they are more reliant on debt financing, such as bank loans, to fund their operations. According to Myers (2001), firms with limited access to equity financing must rely more heavily on debt, which can be advantageous in the short term due to lower tax liabilities associated with debt interest payments. However, this reliance on debt financing can increase financial risk and the likelihood of default if the firm faces economic downturns or cash flow problems.

For manufacturing firms in Ethiopia, bank credit represents the primary source of external financing, and its availability directly affects the capital structure decisions made by business owners. However, high interest rates, stringent collateral requirements, and inadequate credit risk assessments make it difficult for firms to secure loans, especially for SMEs. These barriers can exacerbate the financial challenges that firms face, hindering their ability to expand and invest in long-term growth. According to Kraus and Litzenberger (1973), the challenge for firms in such contexts is striking a balance between debt and equity to minimize financial distress, while still maintaining adequate access to finance for growth.

Thus, the role of bank credit in influencing capital structure decisions is particularly important in economies with less access to equity capital. Financing constraints limit the firm's ability to

expand, innovate, and maintain competitiveness. In Ethiopia, enhancing access to affordable credit can reduce firms' dependence on debt and support better capital structure management, ultimately improving overall business performance.

2.2.3. Resource-Based View (RBV)

The Resource-Based View (RBV) of the firm emphasizes that a firm's competitive advantage is derived from its unique resources and capabilities, which are difficult for competitors to imitate or replicate. According to Barney (2014), the resources and capabilities that firms acquire, develop, and utilize play a critical role in determining their competitive position and sustainable growth. For manufacturing firms in Ethiopia, access to financial resources, such as bank credit, is crucial in building and maintaining these resources. By securing credit, firms can acquire the tangible (machinery, equipment) and intangible (research, human capital) resources necessary to enhance their competitive advantage.

In this context, bank credit serves as an enabler for firms to develop and maintain the resources that contribute to their long-term success. Firms that have access to bank loans can invest in capital-intensive technologies, staff training, and research and development (R&D) to improve their capabilities. This investment leads to productivity improvements and greater innovation, which are essential for achieving competitive advantages in global and local markets. Peteraf and Bergen (2003) argue that firms that leverage their financial resources effectively can create a sustainable competitive advantage, positioning themselves for long-term growth.

In Ethiopia, where access to capital is often limited, the RBV highlights the importance of credit availability in enabling manufacturing firms to build the capabilities they need to compete. For example, a firm that receives a loan to invest in new machinery or a state-of-the-art production facility will enhance its ability to produce high-quality goods at a lower cost, improving its position in the market. Similarly, access to financing allows firms to recruit skilled labor and train their employees, further strengthening their organizational capabilities.

In the case of Ethiopian manufacturers, government policies and banking sector reforms are necessary to ensure that firms can access the resources required for growth. By improving access

to credit, manufacturers can build the resources necessary to increase innovation, enhance productivity, and ultimately sustain competitive advantages over the long term.

2.2.4. Institutional Theory

Institutional Theory examines how the institutional environment—comprising formal institutions (e.g., laws, regulations) and informal institutions (e.g., social norms, culture)—affects the behavior of firms. Scott (2014) argues that institutions shape the rules, incentives, and constraints under which firms operate, thus influencing their ability to access resources, including credit. In Ethiopia, the institutional environment plays a key role in determining whether manufacturing firms can access financing. According to Kauffman and Kraay (2008), strong and efficient institutions reduce the risks and uncertainties associated with lending, which, in turn, improves access to credit for firms.

The institutional environment in Ethiopia, including the legal framework governing credit, has a significant impact on the accessibility of bank loans for manufacturing firms. A well-developed financial system, with clear lending regulations, enforceable contracts, and strong credit rating systems, encourages banks to lend more freely and allows manufacturers to secure loans with fewer hurdles. In contrast, weak institutions and inefficiencies in the legal system may deter banks from lending to firms in high-risk sectors like manufacturing.

Moreover, institutional factors such as cultural attitudes toward debt and informal lending practices also influence firms' ability to access formal credit. In Ethiopia, where the informal sector is prominent, manufacturing firms may prefer informal loans or rely on personal networks, bypassing formal bank credit. However, institutional reforms, such as improved banking regulations, credit guarantee schemes, and financial literacy programs, can help bridge the gap between formal and informal financing options, enhancing access to credit for manufacturing firms.

Institutional reforms that encourage legal protection for creditors, better corporate governance practices, and improved banking infrastructure can help strengthen the relationship between bank credit and manufacturing performance. Ethiopian policymakers must work to create an environment that reduces barriers to credit access, fosters trust in the banking system, and

encourages firms to engage in formal credit channels. As North (1990) suggests, institutional quality is a key determinant of economic development, particularly in emerging economies like Ethiopia.

2.3. Empirical Literature Review

2.3.1. Introduction

The interplay between bank credit financing and the performance of the manufacturing sector has been a focal point of empirical research, particularly in developing economies. Access to financing is often cited as a critical factors that can significantly enhance the productivity and growth of manufacturing firms.

2.3.2. The Role of Bank Credit in Manufacturing Performance

Access to bank credit plays a central role in the performance of manufacturing firms, particularly in developing economies. Studies have consistently shown that financial access is a critical determinant of a firm's ability to invest in new technologies, expand operations, and improve productivity. For instance, Beck et al. (2008) found that firms with better access to credit grow faster than those without access. They highlighted that bank credit allows firms to increase their capital investment, improve their machinery, and scale up their production processes, which enhances their overall efficiency.

In developing economies, where alternatives to formal financing are limited, the manufacturing sector is particularly dependent on bank credit for growth and innovation. In Ethiopia, manufacturing firms often face financial constraints, as access to equity financing is scarce, and credit markets are not as developed as in more advanced economies. A study by Abate (2016) on the Ethiopian manufacturing sector revealed that Debremarkos Town financing has been a key enabler of firm expansion and innovation. According to his research, manufacturing firms that had access to bank loans were able to increase their production capacity and improve operational efficiency, leading to higher levels of output.

Furthermore, Ayyagari et al. (2011) emphasize that access to financial resources through bank credit is essential for manufacturing firms to implement long-term strategies, such as investments

in capital-intensive technologies. Firms without access to external finance are often constrained in their ability to purchase new machinery or expand their operations, which limits their growth prospects. This is particularly significant in Ethiopia, where small and medium-sized enterprises (SMEs) make up a large portion of the manufacturing sector but face substantial barriers to financing.

In addition to these findings, Chirwa (2015) found that, in Ethiopia, the relationship between bank credit and manufacturing performance is particularly evident in export-oriented industries. He argued that firms that received financing from Debremarkos Town s were better able to meet the international quality standards required for export markets. These firms invested in upgrading their production processes and enhancing the quality of their products, which led to increased sales and manufacturing sector in international markets. This highlights the critical role of bank credit not only in domestic market growth but also in facilitating firms' entry into global markets.

On the other hand, high interest rates and stringent collateral requirements pose significant challenges for manufacturing firms to access bank loans. As noted by Mavridis (2007), high borrowing costs in developing economies can discourage firms from seeking loans, limiting their ability to grow. This problem is especially pronounced in Ethiopia, where the banking system is characterized by high rates of interest on loans, which makes credit expensive for small and medium enterprises (SMEs). This can result in underinvestment in key areas such as technology and human capital, thus inhibiting productivity and growth in the sector.

2.3.3. Access to Credit and Investment Decision

Access to credit is a key determinant of a manufacturing firm's investment decisions, directly influencing its growth trajectory. In their study, Ayyagari et al. (2011) found that firms with access to bank credit were more likely to invest in expanding capacity, purchasing new technology, and hiring skilled labor. This is particularly relevant in Ethiopia, where many manufacturing firms depend on loans for long-term investments, such as infrastructure development and technology upgrades. A lack of access to credit can significantly curtail these investment activities, ultimately affecting the firm's growth prospects and overall performance.

Investment decisions are typically based on firms' ability to secure external financing. When firms are unable to access credit, they are forced to rely on internal financing or external sources that are often more expensive or less reliable. In Ethiopia, many SMEs lack sufficient collateral or credit histories that would allow them to obtain loans from traditional banking institutions. According to a study by Getachew (2018), this is a major barrier for small firms looking to expand or modernize their operations. Without adequate financing, these firms are unable to make the necessary investments in equipment, facilities, or employee training to enhance their performance.

However, credit availability does not only enable firms to invest in physical assets, but also enhances their strategic decision-making. Beck et al. (2010) found that access to credit allows firms to take risks on new business ventures, which can lead to higher levels of growth and profitability. For instance, firms that can access credit are more likely to take on new projects, introduce new products, or enter new markets. This is important for the Ethiopian manufacturing sector, which aims to diversify and increase its global competitiveness. However, many firms are restricted by the inability to secure loans, leading to missed opportunities for investment in these high-return areas.

Moreover, Ayyagari et al. (2011) also note that credit access provides a firm with the necessary flexibility to manage cash flow and seize market opportunities. In many cases, firms must respond quickly to market changes or supply chain disruptions, which requires fast access to working capital. Without credit, manufacturing firms in Ethiopia may not be able to adjust their production lines in response to demand fluctuations or changes in input costs. This liquidity constraint can negatively affect a firm's ability to remain competitive in a rapidly changing market environment.

Finally, investment decisions are also influenced by the cost of credit and the terms and conditions attached to loans. As Getachew (2018) observed, high interest rates and unfavorable loan conditions can make borrowing unattractive for manufacturing firms, especially SMEs, which have fewer resources to absorb the costs associated with loans. This discourages firms from pursuing long-term investments that could improve their productivity and market competitiveness.

2.3.4. Challenging in Securing Bank Financing

Despite the importance of bank credit for manufacturing sector growth, several challenges impede the ability of firms, particularly small and medium-sized enterprises (SMEs), to secure financing. High interest rates and stringent collateral requirements are often cited as major obstacles in developing economies like Ethiopia. According to Mavridis (2007), many manufacturing firms in Ethiopia are unable to access the necessary credit due to the high cost of borrowing. These high interest rates are a result of the perceived risk of lending to manufacturing firms, particularly SMEs, which are often seen as less stable or more vulnerable to economic shocks.

The lack of collateral is another significant barrier for SMEs in Ethiopia. Stiglitz and Weiss (1981) argue that the requirement for collateral can be a major constraint for firms without substantial assets. This is especially challenging for small firms, which may not have the assets required to secure loans. In Ethiopia, where a significant portion of manufacturing firms are SMEs, this lack of collateral becomes a critical issue. Getachew (2018) reports that many SMEs in Ethiopia are unable to secure loans due to their inability to provide collateral, which prevents them from expanding and investing in the long-term growth of their businesses.

Additionally, the length of loan approval processes and the bureaucratic nature of the Ethiopian banking system make securing financing difficult. In a study by Ayele (2020), it was found that many manufacturers in Ethiopia experience long waiting times for loan approval, which discourages them from applying for credit in the first place. These delays can be detrimental to the firm's ability to respond quickly to changes in market conditions or to make timely investments in equipment, inventory, or labor.

Furthermore, information asymmetry between banks and borrowers can also exacerbate the problem. Demirgüç-Kunt and Maksimovic (1998) argue that banks may be hesitant to lend to new or small manufacturing firms due to the lack of detailed financial records or business histories. This information gap makes it difficult for banks to assess the true risk of lending to firms and can lead to a reduction in lending to smaller or newer businesses. Abate (2016) notes that the lack of proper financial documentation among many Ethiopian manufacturing firms

makes it harder for banks to evaluate the creditworthiness of borrowers, further exacerbating the challenges of securing credit.

Finally, the lack of financial literacy among many entrepreneurs in Ethiopia is a significant barrier to accessing bank credit. According to Ayele (2020), many SMEs lack the financial knowledge necessary to navigate the loan application process and meet the requirements of lenders. Without understanding how to present financial statements, cash flow projections, or the long-term viability of their businesses, entrepreneurs often fail to secure the financing they need. This lack of financial literacy leads to poor loan application outcomes and further limits access to credit for manufacturing firms.

2.3.5. Collaterals Requirements and Their Implication

One of the major challenges that manufacturing firms in Ethiopia face when seeking bank credit is the stringent collateral requirements imposed by banks. In many cases, banks require real estate or tangible assets as collateral before extending loans, a condition that many SMEs cannot meet due to their limited access to physical assets. According to Stiglitz and Weiss (1981), excessive collateral requirements can exclude even viable firms from the credit market, especially in developing economies where many businesses are asset-poor.

The high collateral requirements are designed to mitigate the risk of default from the lender's perspective, but they can pose significant barriers for SMEs, which are often the most credit-constrained. Mavridis (2007) argues that firms without sufficient assets to pledge as collateral are often denied access to loans, even if they have sound business plans and cash flows. This problem is particularly prevalent in Ethiopia, where many small and medium-sized manufacturers lack the necessary physical assets to satisfy the collateral demands of banks.

In Ethiopia, real estate is the most commonly accepted form of collateral, but this limits the ability of startups or younger firms to access credit. Getachew (2018) notes that many manufacturers in Ethiopia lack property or land to offer as collateral, which severely limits their access to credit from Debremarkos Town s. As a result, firms are either forced to rely on informal lenders or forgo needed investments altogether. Ayele (2020) found that SMEs in Ethiopia have the highest barriers to financing due to the inability to meet the collateral

requirements, which further contributes to the informal lending practices that dominate the financial landscape.

However, some studies suggest that alternative collateral mechanisms may help address these challenges. Abate (2016) proposed that banks in Ethiopia could begin accepting movable assets (e.g., machinery, inventory) as collateral, as this could reduce the financing gap for manufacturing firms. By using asset-based lending practices, banks can mitigate the risks associated with lending to SMEs while providing firms with the capital they need to grow and expand. However, implementing such changes would require significant regulatory reforms and changes in banking practices.

In conclusion, while collateral requirements are designed to reduce credit risk, they create significant barriers to financial inclusion for manufacturing firms in Ethiopia. Policy reforms aimed at lowering collateral demands, or allowing more flexible forms of collateral, could greatly improve access to finance for firms that are otherwise viable but lack the traditional forms of security required by banks.

2.3.6. The Impact of Credit Risk Assessment

The process of credit risk assessment plays a pivotal role in determining which manufacturing firms are eligible for bank loans and at what terms. In many developing economies, banks often employ rigid risk assessment models that may unintentionally exclude viable firms, especially smaller or newer ones, from accessing financing. According to Demirgüç-Kunt and Maksimovic (1998), banks are more likely to lend to established firms with proven credit histories and stable financial performance. This bias toward larger, more established businesses limits opportunities for small and medium-sized enterprises (SMEs) in the manufacturing sector.

Credit risk assessments are typically based on a combination of factors, such as a firm's financial history, credit score, and the perceived stability of the industry in which the firm operates. However, this approach may overlook the growth potential of newer firms that may not yet have an established track record but possess strong business models and innovation potential. In Ethiopia, where SMEs often lack a long track record or adequate documentation, the creditworthiness of such firms may be undervalued by traditional risk assessment models. Abate

(2016) emphasized that banks in Ethiopia tend to rely heavily on past performance when evaluating credit applications, which disadvantages younger firms with innovative ideas but limited historical data.

Additionally, credit risk assessment models may also fail to consider non-financial factors that could be important in evaluating a firm's future potential. According to Mavridis (2007), factors such as the quality of a firm's management team, its innovation capacity, or its ability to adapt to market conditions often play a significant role in determining a firm's success but are often ignored in traditional credit assessments. This focus on purely financial metrics may result in missed opportunities for lenders to support firms that have significant growth potential but lack collateral or a long financial history.

In Ethiopia, there has been growing concern over the lack of alternative credit scoring models that could better assess the risk of lending to small and emerging manufacturing firms. Ayele (2020) suggested that banks should adopt alternative lending models that use more comprehensive criteria, such as business plans, market analysis, and the firm's competitive advantage, to assess creditworthiness. This approach would allow banks to identify promising firms that might otherwise be overlooked by conventional risk assessment systems.

Finally, the lack of access to alternative financing instruments, such as venture capital or angel investment, further exacerbates the challenge of credit risk assessment. Getachew (2018) found that many manufacturing firms, particularly startups, struggle to obtain credit not because of poor financial management but due to the inherent uncertainty and risk associated with new ventures. In such cases, banks' risk aversion prevents them from lending to firms that, while risky, could potentially contribute significantly to the broader economic development if given the opportunity.

2.3.7. Regional Insights from Ethiopia

Ethiopia's manufacturing sector has witnessed significant growth in recent years, largely due to the government's commitment to promoting industrialization and attracting investment. Studies specific to Ethiopia show that access to bank credit plays a crucial role in enhancing manufacturing performance. According to Abate (2016), Debremarkos Town s in Ethiopia have

significantly contributed to the growth of manufacturing enterprises, particularly through the provision of targeted loans and tailored financial products. These products often include favorable interest rates and longer repayment terms that allow manufacturers to make substantial investments in technology and expand their production capacity.

A study by Chirwa (2015) emphasized the role of Debremarkos Town s in supporting firms engaged in export-oriented manufacturing. These firms, which are often more capital-intensive, benefit from access to affordable credit that allows them to meet international quality standards and compete in global markets. The export market is crucial for Ethiopia's manufacturing sector, and the availability of bank credit provides firms with the necessary resources to modernize their production lines, improve the quality of their products, and expand their manufacturing sector abroad.

However, challenges remain in accessing bank credit for SMEs in Ethiopia. As noted by Abate (2018), although large firms benefit from better access to financing, SMEs are often left behind due to limited collateral, lack of financial literacy, and high interest rates. In many cases, small manufacturers are unable to meet the collateral requirements imposed by banks, which restricts their ability to secure loans. This is particularly problematic in Ethiopia, where SMEs represent a large portion of the manufacturing sector but remain heavily constrained by financing limitations.

Research by Getachew (2018) revealed that the informal sector in Ethiopia plays a critical role in supporting the manufacturing industry, often stepping in to provide capital to firms that are excluded from formal financing channels. This informal lending has become a key source of credit for many small manufacturers, though it comes with its own set of challenges, such as higher interest rates and less favorable repayment terms. The absence of formal financing options forces many manufacturing firms to depend on informal networks, which can limit their growth and sustainability in the long term.

Despite these challenges, Ethiopia has shown notable improvements in its financial system in recent years. The government's efforts to modernize the banking sector and provide more targeted financial products for manufacturers have resulted in some success stories. For example,

Abate (2018) found that firms in Ethiopia that accessed bank loans with favorable terms were able to increase production capacity, expand into new markets, and improve the quality of their products. These firms, particularly in sectors such as textiles and food processing, have benefitted from the availability of credit and have been able to position themselves as competitive players in both domestic and international markets.

2.3.8. The Regulatory Environment and Its effects

The regulatory environment is a critical factor influencing access to bank credit for manufacturing firms in Ethiopia. A well-functioning financial regulatory system can help mitigate risks and build trust in the banking system, thus facilitating more lending to firms in the manufacturing sector. According to the World Bank (2015), a robust regulatory framework enhances financial inclusion and reduces the perceived risk of lending. In Ethiopia, however, the regulatory environment has been evolving, with new policies aimed at improving access to finance and supporting industrial development.

The government's efforts to introduce policies that promote industrialization have led to improved banking practices, especially with respect to tailored loan products for manufacturing firms. Abate (2016) found that policy interventions, such as government-backed loan guarantees and subsidized interest rates, have played a significant role in increasing the availability of credit for manufacturers. These policies help reduce the risk for lenders, making them more willing to extend credit to firms that might otherwise be considered too risky. By addressing the high-risk perception of lending to the manufacturing sector, these policies have helped boost the sector's growth.

However, weaknesses in the regulatory framework still present barriers to credit access. According to Chirwa (2015), bureaucratic inefficiencies and regulatory uncertainty can hinder the ability of banks to provide financing to manufacturers in a timely manner. In Ethiopia, the lack of consistency in implementing industrial policies and regulatory reforms has sometimes led to confusion among both lenders and borrowers. This uncertainty can result in delays in loan approval, which in turn disrupts manufacturers' ability to make timely investments in their operations.

Moreover, Ayele (2020) argued that the lack of transparency in regulatory processes can result in discriminatory lending practices. Banks may favor larger firms with better political connections or long-standing relationships with banks, leaving smaller firms at a disadvantage. This disparity creates an uneven playing field where the access to finance becomes more difficult for smaller manufacturers, limiting their growth and innovation potential.

In conclusion, the regulatory environment in Ethiopia plays a significant role in shaping access to bank credit for the manufacturing sector. While improvements have been made through government policies and regulatory reforms, challenges remain, particularly in terms of bureaucratic inefficiencies and regulatory inconsistency. The policy landscape will need to continue evolving to address these barriers and provide a more supportive framework for financial inclusion in the manufacturing sector.

2.3.9. Competitive Studies in Developing Economies

The importance of access to bank credit in driving manufacturing performance has been well-documented across developing economies. A cross-country analysis by Asongu and Nwachukwu (2016) focused on Sub-Saharan Africa, showing that improved access to bank financing is a significant determinant of higher productivity in the manufacturing sector. Their study found that countries with better access to finance tended to have more competitive and innovative manufacturing industries, which were able to increase production, enhance product quality, and expand market reach.

This empirical evidence supports the argument that financial intermediation plays a crucial role in fostering industrialization in developing countries. When firms have access to credit, they are able to invest in capital goods such as machinery, equipment, and technology, which improve efficiency and increase capacity. In many developing economies, where self-financing options are limited, bank credit acts as a vital catalyst for growth and productivity enhancement in the manufacturing sector.

The findings of this cross-country study are especially relevant for Ethiopia, where the manufacturing sector has struggled to reach its full potential despite various government efforts to industrialize. Asongu and Nwachukwu's (2016) research suggests that improving the banking

sector's ability to provide credit to manufacturing firms could help boost productivity and create a more competitive industrial base. This would involve not only improving access to credit but also addressing the structural constraints that limit the effective use of credit in these economies, such as poor infrastructure, high transaction costs, and limited financial literacy among business owners.

Moreover, competitive studies in developing economies reveal the importance of establishing a favorable business environment, which includes access to credit, regulatory support, and a skilled labor force. Governments must invest in policy measures that encourage investment in manufacturing by creating a robust credit ecosystem. This could include offering guarantees for loans, introducing tax incentives for manufacturing firms, or improving the ease of doing business to attract both domestic and foreign investments.

In conclusion, the lessons from competitive studies in developing economies highlight the importance of fostering a financial ecosystem that facilitates credit access to the manufacturing sector. For countries like Ethiopia, these findings underscore the need for comprehensive policies aimed at enhancing financial intermediation, improving the regulatory environment, and increasing the availability of credit to manufacturers, which can ultimately boost industrial competitiveness and drive economic growth.

2.3.10. Positive Impacts of Bank Credit

Numerous empirical studies have demonstrated the positive impact of bank credit on the growth and performance of manufacturing firms. One of the most notable studies by Beck and Demirgüç-Kunt (2006) analyzed data across several developing countries and concluded that access to finance is directly linked to higher productivity, profitability, and long-term growth in the manufacturing sector. According to their research, firms that have easier access to credit are better positioned to invest in research and development, adopt new technologies, and improve their overall operational efficiency.

In Ethiopia, a similar study by Abate (2018) examined the relationship between bank credit and manufacturing performance. The study found that firms that successfully secured bank financing experienced significant improvements in production output and market share. For example,

manufacturers that used loans to purchase modern machinery reported a 30% increase in their production capacity compared to those relying on internal funds. These findings further support the idea that bank credit can have a transformative effect on the manufacturing sector, enabling firms to scale up and compete in both local and international markets.

Access to credit allows manufacturers to overcome the limitations of relying solely on internal financing, which may be insufficient for purchasing expensive equipment or expanding operations. By enabling firms to access larger pools of capital, credit helps manufacturers to expand their businesses, improve production processes, and invest in new technologies. Additionally, firms that use credit to innovate and modernize their operations tend to be more competitive, producing goods that meet higher quality standards and are more cost-efficient.

The benefits of credit go beyond just increasing production capacity. Bank loans can also help manufacturing firms smooth their cash flow by providing short-term financing to cover working capital needs, such as purchasing raw materials or paying employees. This financial flexibility ensures that firms can continue to operate even during periods of low cash flow, preventing disruptions to production and helping them maintain consistent output levels.

Finally, the positive effects of bank credit on manufacturing performance are not limited to large firms. Even small and medium-sized enterprises (SMEs) can benefit significantly from access to financing. By using credit, SMEs can invest in automation, increase product quality, and gain access to new markets, all of which contribute to higher growth and greater economic contribution. Therefore, improving access to bank credit can have far-reaching benefits for the overall economic development of a country, especially in developing economies like Ethiopia.

2.3.11. Challenges in Accessing Credit

While the benefits of bank credit for manufacturing firms are widely recognized, there are significant challenges in accessing this financing, especially for small and medium-sized enterprises (SMEs) in developing countries. A study by Getachew (2018) highlighted several obstacles that limit the ability of manufacturers in Ethiopia to access credit from formal financial institutions. One of the primary challenges is the stringent lending criteria employed by banks, which often require large collateral that many SMEs are unable to provide. This lack of collateral

puts smaller firms at a disadvantage, as they are less likely to meet the requirements for traditional loans.

Another major challenge is the lack of financial literacy among many entrepreneurs, particularly in the manufacturing sector. Many business owners in Ethiopia struggle to prepare sound loan applications or present credible financial records, making it difficult for them to access financing. This is compounded by a lack of training in financial management, which prevents firms from understanding their financial needs and how to structure loan proposals effectively. Consequently, even when credit is available, many manufacturers are unable to navigate the complexities of the loan application process, leaving them unable to secure financing.

Ayele's (2020) survey revealed that high-interest rates are another significant barrier to accessing credit for manufacturing firms. Banks often charge high interest rates due to perceived risks, which increases the cost of borrowing. For many small manufacturers, the burden of high interest rates discourages borrowing, as it becomes difficult to justify the cost of financing in light of expected returns. This issue is particularly problematic for businesses that rely on short-term loans for working capital needs, as the high cost of borrowing erodes profits and reduces their ability to reinvest in growth.

Furthermore, the overall perception of risk among banks contributes to the challenges of accessing credit. In developing economies like Ethiopia, financial institutions often view manufacturing as a risky sector due to factors such as market volatility, political instability, and fluctuating demand for goods. This risk perception results in banks being less willing to lend to manufacturers, particularly those in the early stages of development or those operating in niche markets. Consequently, many manufacturers are excluded from the formal financial system and are forced to rely on informal financing, which is often insufficient and expensive.

Addressing these challenges requires a multi-faceted approach. Policymakers need to create a more supportive regulatory environment that encourages banks to lend to the manufacturing sector. This could include providing financial incentives for banks to reduce interest rates, developing credit guarantee schemes to reduce the risk for lenders, and providing training and resources to improve financial literacy among entrepreneurs. By tackling these barriers, Ethiopia

can create an environment where manufacturers can more easily access the credit they need to grow and thrive.

2.3.12. The Role of Government and Policy Implications

Empirical studies underscore the importance of government policies in shaping the access to credit for manufacturing firms. According to Gebrehiwot (2019), government initiatives aimed at fostering industrialization have contributed to better collaboration between banks and manufacturing firms. Policies that provide guarantees for loans, reduce interest rates, or offer subsidies for specific sectors have been shown to improve credit access for manufacturers, particularly in developing economies. These policies not only lower the cost of borrowing but also increase the willingness of banks to lend to firms in the manufacturing sector.

Governments can also play a key role in improving the overall business climate, which includes creating a stable macroeconomic environment and reducing regulatory burdens. By streamlining business registration processes, improving infrastructure, and addressing issues such as corruption and bureaucracy, governments can create an environment where businesses are more likely to thrive. This, in turn, makes it easier for financial institutions to assess risks and lend to manufacturers, knowing that the broader economic environment is stable.

One of the most effective ways governments can encourage lending to the manufacturing sector is by introducing credit guarantee schemes. These schemes provide financial institutions with partial protection against loan defaults, thus reducing the perceived risk of lending to manufacturers. By assuming a portion of the risk, governments can incentivize banks to provide loans to manufacturing firms, particularly those that lack sufficient collateral or are perceived as high-risk borrowers.

Another important policy implication is the need for targeted financial products designed to meet the unique needs of manufacturing firms. While traditional bank loans may be suitable for some businesses, many manufacturers require specialized financing options, such as asset-based loans, trade credit, or export financing. Governments can encourage the development of these tailored products by offering incentives to banks or by partnering with financial institutions to create more inclusive financing models that cater specifically to the manufacturing sector.

In conclusion, government policies play a vital role in improving access to credit for the manufacturing sector. By introducing supportive measures such as loan guarantees, interest rate subsidies, and improved financial infrastructure, governments can reduce the barriers that prevent manufacturers from accessing the financing they need. In Ethiopia, a cohesive strategy that aligns government policy with the needs of the manufacturing sector could unlock significant growth potential and contribute to the country's long-term economic development.

2.4. Research Hypothesis

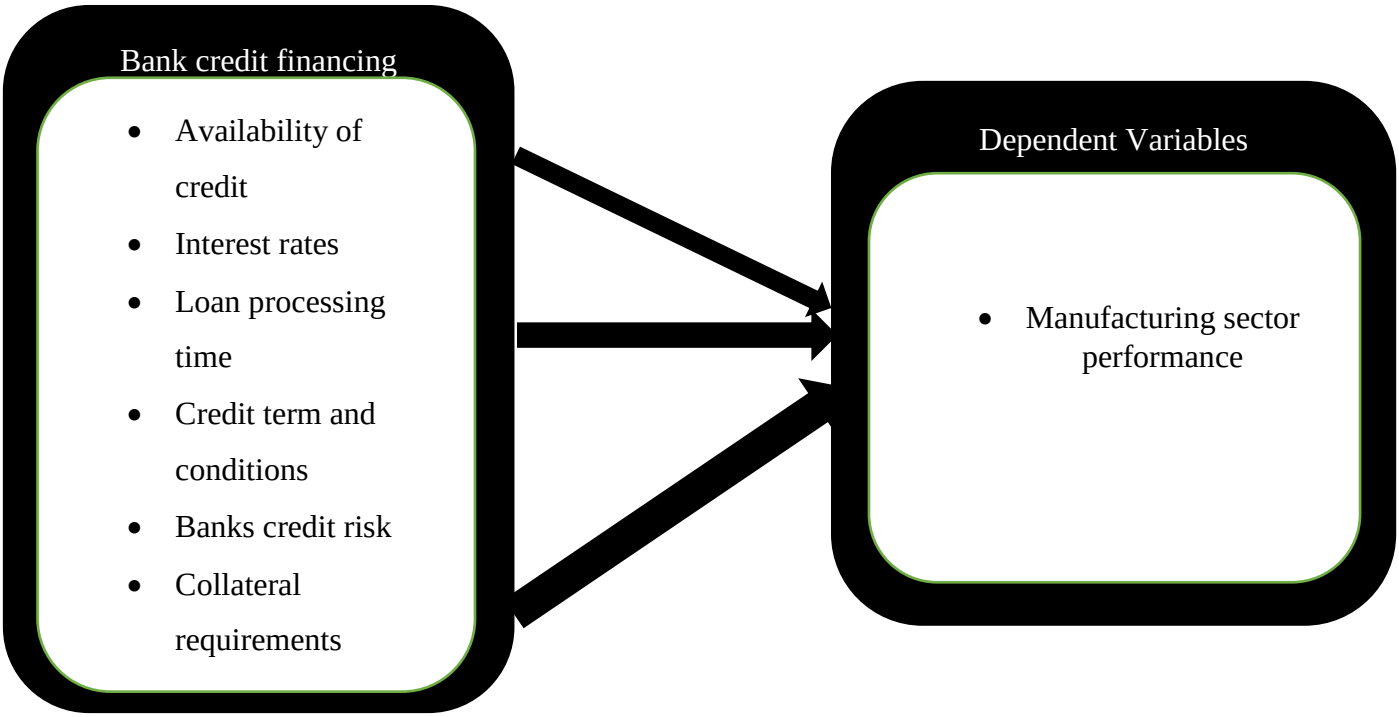
The study aims to provide empirical evidence on the effects of bank credit financing on the performance of the manufacturing sector in Debremarkos, contributing to a deeper understanding of the dynamics involved in financial access and business growth.

- H1: There is a significant positive relationship between the availability of bank credit and the manufacturing sector of manufacturing firms in Debremarkos.
- H2: The interest rate on bank loans has a significant negative impact on the revenue of manufacturing firms in Debremarkos.
- H3: Loan processing time has a significant positive effect on the production levels of manufacturing firms in Debremarkos.
- H4: Favorable loan terms and conditions (such as longer repayment periods and lower interest rates) positively influence the profitability of manufacturing firms in Debremarkos.
- H5: The credit risk taken by banks negatively impacts the manufacturing sector of manufacturing firms in Debremarkos.
- H6: Collateral requirements for loans have a significant negative effect on the revenue of manufacturing firms in Debremarkos.

2.5. Conceptual framework

The conceptual framework serves as a visual representation of the relationship between bank credit financing and the performance of the manufacturing sector. It outlines the key variables and their interactions, providing a structured approach to understanding how these elements influence each other, particularly in the context of the Debremarkos Town its Debremarkos branch.

Figure 2.1 Conceptual Framework of the Study



CHAPTER THREE

METHDOLOGY OF THE STUDY

3. Introduction

This chapter outlines the methodology employed to achieve the objectives of the study, focusing on several key areas: the description of the study area, the research approach, and the research design. It details the study population, sampling design and techniques, as well as the definition and measurement of study variables. Additionally, the chapter discusses the methods of data collection and analysis, model specification, and the reliability and validation of the data. Ethical considerations are also addressed to ensure that the research adheres to necessary standards.

3.1. Description of the Study Area

This study focuses on Debremarkos Town, located in the East Gojjam Zone of the Amhara Region. Debremarkos plays a significant role in the regional economy, driven by a combination of robust agricultural activities and a growing manufacturing sector. The town benefits from its strategic location along major transportation routes, providing easy access to both markets and resources.

In recent years, Debremarkos has witnessed the growth of small and medium-sized enterprises (SMEs), which contribute significantly to local employment and economic development. The manufacturing sector in the town includes industries such as food processing and construction materials, which are important drivers of economic growth.

The availability of credit facilities plays a crucial role in supporting industrial growth. Financial institutions' initiatives, particularly in lending to manufacturing businesses, are vital for enhancing production capacity and fostering innovation within the local economy.

This study aims to assess the impact of bank credit financing on the performance of the manufacturing sector in Debremarkos. By analyzing the relationship between credit availability and manufacturing output, the research seeks to provide valuable insights into the effectiveness of financial support in driving economic growth and development within the town.

3.2. Research Approach

This approach a mixed-methods research approach is most suitable for this study as it enables a comprehensive analysis of how bank credit influences the performance of the manufacturing sector. The quantitative component will involve administering surveys to manufacturing firms in Debremarkos. These surveys will collect data on key financial performance metrics before and after receiving bank credit. This will allow for statistical analysis to identify any significant relationships between credit financing and performance outcomes, such as production capacity, profitability, and operational efficiency.

In addition to the survey, existing financial data from the town's financial institutions will be analyzed to understand lending patterns and their impact on the growth of the manufacturing sector. This will provide a broader context for understanding how credit flows to manufacturers and the general trends in bank lending.

Complementing the quantitative analysis, qualitative methods such as interviews or focus group discussions with business owners, managers, and bank officials will provide deeper insights into the contextual factors affecting the effectiveness of bank credit. These interviews will capture the subjective experiences of manufacturers regarding credit accessibility, usage, and the challenges they face in utilizing bank financing for growth and expansion.

By integrating both quantitative and qualitative data, this research will provide a fuller picture of the relationship between bank credit and manufacturing sector performance. The quantitative data will offer statistical evidence of correlations, while the qualitative insights will highlight the nuanced factors that influence the effectiveness of credit financing in Debremarkos.

3.3. Research design

The research will adopt a descriptive cross-sectional design to explore the relationship between bank credit financing and the performance of manufacturing firms in Debremarkos. This design allows for the collection of data on credit access and business performance at a single point in time. The descriptive aspect of the design will enable the study to document the current state of credit access, including the amount of credit received, types of financing, and other credit-related

variables such as interest rates and loan terms. Additionally, the study will examine the impact of these credit factors on key performance indicators like revenue growth, production capacity, and profitability.

By employing a cross-sectional approach, the study will assess the association between bank credit financing and manufacturing performance, offering insights into the relationship between these variables without attempting to establish a cause-and-effect relationship. This approach is appropriate for understanding current patterns and trends in credit access and its potential impact on the manufacturing sector in Debremarkos, as it involves data collection at one point in time. The findings will assist in informing policy decisions and business strategies aimed at improving access to bank credit for manufacturing firms in the region.

3.4. Description of the study population

The study population for this research consists of manufacturing firms located in Debremarkos, Ethiopia, that utilize bank credit. This population includes a diverse array of companies operating in sectors such as textiles, food processing, construction materials, and other manufacturing activities. To ensure a thorough analysis, the study will focus on firms that have been operational for at least two years, providing a sufficient financial history and experience with bank financing.

Within this population, the research will target both small and medium-sized enterprises (SMEs) as well as larger manufacturing firms. This diversity is essential for capturing a range of perspectives on how bank credit impacts performance. Data will be gathered through surveys and interviews with key stakeholders, including business owners and financial managers, to gain insights into their experiences with bank credit and its effects on their production output, revenue growth, and overall business performance. By including various types of firms, the research aims to provide a comprehensive understanding of the dynamics between bank financing and manufacturing sector performance in Debremarkos.

3.5. Source of data

The data for this study will be sourced from both primary and secondary data. Primary data will be collected through structured questionnaires, which will be distributed to two distinct groups: representatives from the manufacturing sector and employees of local financial institutions in Debremarkos. This primary data will offer firsthand insights into their experiences and perceptions regarding the impact of bank credit financing on manufacturing performance.

In addition to the primary data, secondary data will be gathered from relevant reports and publications, such as industry analyses, financial statements, and economic reports from financial institutions in Debremarkos. Secondary data will also be sourced from government agencies and international organizations, including the World Bank and the International Monetary Fund. These secondary sources will help provide context to the findings from the primary research and offer a broader understanding of the dynamics within the manufacturing sector and the banking environment in Ethiopia.

Furthermore, a review of academic literature will be conducted to examine existing research and theories related to bank credit financing and manufacturing performance. This literature review will include journal articles, theses, and conference papers discussing similar topics. By incorporating primary data, secondary data, and academic literature, this research aims to provide a comprehensive analysis of the relationship between bank credit financing and the performance of the manufacturing sector in Ethiopia.

3.6. Sampling Design and Techniques

For this research, a stratified random sampling technique will be employed to ensure a representative selection of manufacturing firms in Debremarkos, Ethiopia. The study population will be divided into two distinct strata based on firm size: small enterprises and medium enterprises. This stratification will ensure that a variety of experiences are captured regarding the impact of bank credit financing on manufacturing sector performance.

The total population consists of 446 small firms and 30 medium firms, making up a total of 476 manufacturing firms. Using Yemane's formula for sample size calculation, the sample sizes for small and medium firms are determined as follows:

$$\boldsymbol{n = \frac{N}{1 + Ne^2}}$$

Where, n is sample size; N is total population; and e^2 is probability of error.

Accordingly, with N = 202, e = 5% (at least 95 % confidence level), sample size for this study is determined using equation given below is:

$$\text{n} = \frac{\mathbf{476}}{\mathbf{1+476\times 0.05^2}} = 217$$

- Sample size for small firms: 204
- Sample size for medium firms: 13

These sample sizes are sufficient to provide statistical power for analysis, ensuring the validity and reliability of the findings. Data will be collected through structured surveys for quantitative analysis, while qualitative insights will be gathered through interviews with key stakeholders, such as business owners and financial managers.

The total sample size will be 217 respondents (204 from small firms and 13 from medium firms). This approach will offer a comprehensive understanding of the role of bank credit financing in influencing the performance of manufacturing firms in Debremarkos.

3.7. Definition and Measurement of study variables

In the study of bank credit financing and its impact on the performance of the manufacturing sector, it is crucial to define and measure the key variables clearly. The primary independent variable in this study is bank credit financing, which refers to the loans and financial products provided by financial institutions to manufacturing firms in Debremarkos. This financing can take various forms, such as working capital loans, equipment financing, and investment loans, all of which support both operational and capital needs of the businesses. The measurement of bank

credit financing will be assessed through metrics such as the total amount of loans issued to the manufacturing sector, the interest rates applied, and the terms and conditions of repayment offered by the banks.

The dependent variable in this study is manufacturing sector performance, which includes a variety of indicators reflecting the efficiency and productivity of manufacturing firms. Common measures of performance include production output, revenue, profitability margins, and employment levels within the sector. Additional performance indicators may involve production efficiency ratios and market share. These variables will be measured using financial statements, industry reports, and statistical data from manufacturing associations or government sources.

Control variables are also important, as they can influence both bank credit financing and manufacturing performance. These may include macroeconomic factors such as inflation rates, exchange rates, and overall economic growth, along with firm-specific characteristics like size, ownership structure, and management practices. To measure these control variables, data will be collected from national economic databases, industry surveys, and firm-level assessments. This will enable a comprehensive analysis of how bank credit financing impacts the performance of the manufacturing sector in Ethiopia.

3.8. Data Collection instruments

For data collection, the study will use a structured, closed-ended questionnaire directed at representatives of the manufacturing sector in Debremarkos. The questionnaire will consist of three sections. The first section will gather demographic information about the respondents, including company size, industry type, years in operation, and their specific roles within the organization. The second section will employ a five-point Likert scale to assess the impact of bank credit financing on manufacturing performance. Respondents will indicate their level of agreement with statements related to productivity, innovation, and financial stability. The third section will evaluate the challenges faced in accessing bank credit using a three-point Likert scale, allowing participants to express the extent to which these challenges affect their operational efficiency.

By employing this structured approach, the study aims to gather comprehensive data that will allow for an in-depth analysis of the relationship between bank credit financing and the performance of the manufacturing sector in Debremarkos. The combination of quantitative data from manufacturing representatives will provide valuable insights into how credit financing influences business outcomes and operational performance in the sector.

3.9. Methods of Data Analysis

The data analysis for this study will utilize descriptive statistics and multiple regression analysis to assess how bank credit financing influences the performance of the manufacturing sector.

Descriptive statistics will be used initially to summarize the key characteristics of the data collected from manufacturing firms. This will involve generating frequency tables to show how firms utilize bank credit, as well as calculating measures such as the mean and standard deviation to understand trends in performance indicators like revenue and production output. These descriptive statistics will provide a clear overview of credit usage patterns and performance levels across the sample.

Following this, multiple regression analysis will be conducted to test the relationships between the independent variable (bank credit financing) and the dependent variable (manufacturing performance). The independent variables will include factors such as the availability of credit, interest rates, loan processing time, and other related aspects, while the dependent variable will include performance indicators such as production output, profitability, and revenue growth. This regression analysis will help determine the extent to which these credit-related factors affect the performance of manufacturing firms and will reveal any significant relationships between the variables.

The statistical significance of these relationships will be assessed using p-values, and potential issues such as multicollinearity will be checked to ensure the accuracy of the model.

3.9.1. Model Specification

Model specification involves defining the statistical model that will be used to analyze the The model specification defines the statistical model used to analyze the relationship between bank credit financing and the performance of the manufacturing sector. A multiple regression model will be applied to assess how various factors-such as the amount of credit received, interest rates, loan processing time, and repayment terms-affect performance indicators like production output, revenue, and profitability.

The regression model will be clearly defined with the dependent variable (e.g., manufacturing sector performance) and independent variables (e.g., bank credit financing, operational costs, and market demand). It is essential to check for multicollinearity among the independent variables to ensure the accuracy and reliability of the model.

The mathematical formulation of the multiple regression model is as follows:

$$\mathrm{Y}i = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \beta 6X6 + \varepsilon i$$

- $\mathrm{Y}i =$ dependent variable (manufacturing sector performance)
- $\beta 0 =$ Intercept term, representing the baseline level of manufacturing performance when all independent variables are zero.
- β1, β2, β3, β4, β5, β6 = Regression coefficients for each of the independent variables, which represent the magnitude and direction of the effect each factor has on manufacturing performance.
- X1= Availability of credit (the extent to which firms can access credit from banks).
- X2= Interest rates (the interest rates charged on loans).
- X3= Loan processing time (the time taken by the bank to process and approve a loan).
- X4= Credit terms and conditions (the repayment schedule, loan period, etc.).
- X5= Bank's credit risk (the perceived risk level of lending to the manufacturing sector, often reflected in the bank's lending policies).
- X6= Collateral requirements (the assets required by the bank to secure the loan).

- ϵi= Error term representing unobserved factors that may influence the performance of manufacturing firms.

By using this regression model, the study will assess the strength and direction of the relationships between different types of bank credit and the performance outcomes of manufacturing firms in Debremarkos.

3.9.2. Correlation Analysis

This analysis shows how variables are related with each other. The result of this analysis and significant of the correlation of the variables were considered.

3.9.3. Multiple linear regression analysis

The researcher used Cronbach's Alpha to examine the reliability of the scales measuring the impact of the explanatory variables on the banking sector. This method was employed to ensure the consistency and internal reliability of each variable identified in the study. In this study, the equation of the multiple regression model used to analyze the effect and relationship between the explanatory variables and the performance of the manufacturing sector, specifically in Debremarkos Town, is shown below:

$$MSP = \beta 0 + \beta 1AC + \beta 2IR + \beta 3LPT + \beta 4CTC + \beta 5BCR + \beta 6CR + \varepsilon$$

Where:

- MSP = Manufacturing Sector Performance
- β = Slope of Coefficient
- AC = Availability of Credit
- IR = Interest Rate
- LPT = Loan Processing Time
- CTC = Credit Time Condition
- BCR = Bank Credit Risk
- CR = Collateral Requirements
- ε = Error term

This equation represents the relationship between the independent variables (Availability of Credit, Interest Rate, Loan Processing Time, Credit Time Condition, Bank Credit Risk, and Collateral Requirements) and the dependent variable (Manufacturing Sector Performance).

3.10. Reliability test result

The reliability statistics table shows a Cronbach's Alpha value of 0.789 for the six independent variables used in your study. This value indicates that the overall internal consistency of the measurement scale is acceptable, as it is above the commonly accepted threshold of 0.70. This suggests that the items used to measure the six variables (Availability of Credit, Interest Rate, Loan Processing Time, Credit Time Condition, Bank Credit Risk, and Collateral Requirements) are reasonably consistent in measuring the intended constructs. However, this value represents the reliability of the entire set of six independent variables together. To further assess the reliability of each individual variable, separate Cronbach's Alpha calculations should be performed for each of the six independent variables. By doing so, you can ensure that each variable individually demonstrates acceptable internal consistency, and make adjustments if necessary. Overall, the Cronbach's Alpha of 0.789 provides a good indication that the scales used in your study are reliable and suitable for further analysis.

Table 1. Reliability test result for the questionnaire

Item	Number of Item	Cronbachs Alpha
Availability of credit (AC)	11	0.689
Interest rate (IR)	8	0.699
Loan processing time (LPT)	5	0.70
Credit time condition (CTC)	10	0.753
Bank credit risk (BCR)	5	0.704
Collateral requirements (CR)	10	0.782

Source: Own SPSS Computation (2025)

3.11.Ethical Consideration

In researching the impact of bank credit financing on the manufacturing sector in Debremarkos, Ethiopia, ethical considerations are paramount. Informed consent will be obtained from all participants to ensure they understand the purpose of the research and its potential implications. Confidentiality will be maintained by safeguarding sensitive information from both the bank and the businesses involved. Objectivity will be upheld throughout the research process to avoid any potential conflicts of interest, ensuring that the findings are unbiased and impartial. Transparency in reporting the results is essential to prevent the dissemination of inaccurate or misleading information, thereby preserving the integrity of the research. Adherence to local regulations and ethical guidelines will be ensured, and the broader societal implications of the findings will be considered, with the aim of contributing positively to the community.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS, AND DISCUSSION

4.1.Introduction

To analyze the collected data in line with the primary objective of the research, which investigates the impact of bank credit financing on the performance of the manufacturing sector in Debremarkos, statistical procedures were carried out using SPSS version 25.0. This chapter presents the findings of the study, with the aim of identifying the major issues and providing actionable recommendations to address challenges related to bank credit access and its effect on the performance of manufacturing firms in Debremarkos.

A total of 217 questionnaires were distributed to manufacturing firms in Debremarkos, and all 217 questionnaires were returned, providing a complete dataset for analysis. The analysis is thus based on the responses from these 217 questionnaires. The questionnaire used a Likert scale ranging from 1 to 5, where 5 represents "strongly disagree," 4 represents "disagree," 3 represents "neutral," 2 represents "agree," and 1 represents "strongly agree."

4.2.Descriptive Analysis

The descriptive analysis in this study was conducted to provide a comprehensive summary of the data collected and to offer insights into the key demographic factors of the respondents. The demographic questions aimed to capture important background information, including the sex, age, education level, business years, manufacturing focus, and business size of the respondents. Regarding sex, the majority of the respondents were male, though female respondents were also represented. The age distribution of the respondents varied, with a significant proportion falling within the middle age group, suggesting a mix of experienced professionals. In terms of education level, most respondents had completed at least a secondary education, with a sizable portion holding tertiary qualifications, indicating a well-educated respondent pool. The length of time the respondents' businesses have been in operation showed a broad range, with several businesses having been established for many years, while others were relatively new to the market. Additionally, the manufacturing focus of the respondents covered a wide spectrum of industries, such as food and beverages, furniture and wood products, and construction materials,

indicating the diversity in the types of manufacturing firms in Debremarkos. Regarding business size, respondents' businesses ranged from small enterprises with fewer employees to larger businesses with more extensive operations.

Table 2. Sex of respondents

sex of respondent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	175	80.6	80.6	80.6
	female	42	19.4	19.4	100.0
	Total	217	100.0	100.0	

Source: Own SPSS Computation (2025)

The sex of the respondents is shown in Table 2. The table reveals that the majority of respondents are male, accounting for 80.6% of the total sample, while 19.4% are female. This indicates that a higher proportion of male respondents participated in the survey, with a relatively smaller representation of female respondents.

Table 3. Age of respondent

age of respondent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 25 years	31	14.3	14.3	14.3
	26-35 years	103	47.5	47.5	61.8
	36-45 years	74	34.1	34.1	95.9
	46-55 years	9	4.1	4.1	100.0
	Total	217	100.0	100.0	

Source: Own SPSS Computation (2025)

The age distribution of the respondents is shown in Table 3. The table indicates that the largest group of respondents (47.5%) is between 26 and 35 years of age, followed by those in the 36-45 years age group, which accounts for 34.1% of the respondents. A smaller proportion of respondents are under 25 years old (14.3%), while only 4.1% of respondents fall into the 46-55

years age group. This suggests that the majority of respondents are in the younger to middle-aged categories, with a particular concentration in the 26-35 years age group.

Table 4. Educational Level

Educational level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	up to grade 12	102	47.0	47.0	47.0
	Diploma	76	35.0	35.0	82.0
	Degree	25	11.5	11.5	93.5
	above degree	14	6.5	6.5	100.0
	Total	217	100.0	100.0	

Source: Own SPSS Computation (2025)

The educational level of the respondents is shown in Table 4. The table indicates that nearly half of the respondents (47%) have completed up to grade 12, making this the largest group. A significant portion of respondents (35%) holds a diploma, while 11.5% have a degree and 6.5% have education beyond a degree. This suggests that the majority of respondents have a high school or diploma-level education, with fewer individuals possessing a university degree or higher qualifications.

Table 5. Business Year

business year					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1 years	145	66.8	66.8	66.8
	1-3 years	59	27.2	27.2	94.0
	4-7 years	13	6.0	6.0	100.0
	Total	217	100.0	100.0	

Source: Own SPSS Computation (2025)

The number of business years of the respondents is shown in Table 5. The table indicates that the majority of the respondents (66.8%) have been in business for less than 1 year. This is followed by 27.2% of respondents who have been in business for 1-3 years, and a smaller portion (6%) have been in business for 4-7 years. This suggests that most of the respondents are relatively new to the market, with a significant proportion of businesses being less than a year old.

Table 6. Manufacturing focus

manufacturing focus					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	food and beverages	133	61.3	61.3	61.3
	furniture and wood products	44	20.3	20.3	81.6
	construction materials	17	7.8	7.8	89.4
	Others	23	10.6	10.6	100.0
	Total	217	100.0	100.0	

Source: Own SPSS Computation (2025)

The manufacturing focus of the respondents is shown in Table 6. The table reveals that the largest group of respondents (61.3%) is involved in the food and beverages sector. This is followed by 20.3% of respondents focused on furniture and wood products, 10.6% in other sectors, and 7.8% in construction materials. This indicates that the majority of the respondents are in the food and beverages industry, while other sectors, such as furniture and wood products, make up a smaller proportion of the businesses surveyed.

Table 7. Business Size

business size					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	small(1-5 employees)	59	27.2	27.2	27.2
	medium(6-10 employees)	14	6.5	6.5	33.6
	3	97	44.7	44.7	78.3
	4	47	21.7	21.7	100.0
	Total	217	100.0	100.0	

Source: Own SPSS Computation (2025)

The business size of the respondents is shown in Table 7. The table indicates that the majority of respondents (44.7%) have medium-sized businesses with 6-10 employees. This is followed by 27.2% of respondents who operate small businesses with 1-5 employees. A smaller proportion (21.7%) have larger businesses with more than 10 employees, while 6.5% fall into the medium category with 6-10 employees. This distribution suggests that most of the respondents manage small to medium-sized enterprises, with a significant portion being in the lower employee range.

4.3.Correlation Analysis

To address the research question, the researcher employed correlation analysis, a statistical method that measures the linear relationship between two variables. Correlation (r) quantifies the strength and direction of association between two sets of data, providing insight into how one variable may change as the other changes. Cohen (1988) proposed guidelines for interpreting correlation values: r = 0.10 to 0.29 indicates a weak relationship; r = 0.30 to 0.49 represents a moderate correlation; and r = 0.50 to 1.0 signifies a strong relationship between the variables.

For this study, Pearson's correlation was calculated to examine the relationships between the independent variables (Availability of Credit (AC), Interest Rate (IR), Loan Processing Time (LPT), Credit Time Condition (CTC), Bank Credit Risk (BCR), and Collateral Requirements (CR)) and the dependent variable, Manufacturing Sector Performance (MSP). The data was

collected using a scale-based questionnaire from respondents in Debremarkos town, and the results were processed using SPSS software version 25.00.

The correlation analysis revealed the following: Availability of Credit (AC) showed a moderate positive correlation with Manufacturing Sector Performance (MSP) ($r = 0.422$, $p < 0.001$), indicating that increased availability of credit tends to improve the performance of the manufacturing sector. Interest Rate (IR) also exhibited a moderate positive correlation with Manufacturing Sector Performance (MSP) ($r = 0.328$, $p < 0.001$), suggesting that more favorable interest rates are associated with better manufacturing sector outcomes.

Furthermore, Loan Processing Time (LPT) displayed a strong positive correlation with Manufacturing Sector Performance (MSP) ($r = 0.677$, $p < 0.001$), emphasizing the importance of efficient loan processing in boosting sector performance. Credit Time Condition (CTC) also demonstrated a strong positive correlation with Manufacturing Sector Performance (MSP) ($r = 0.664$, $p < 0.001$), indicating that favorable credit terms can significantly improve sector performance.

Lastly, Bank Credit Risk (BCR) revealed a strong positive correlation with Manufacturing Sector Performance (MSP) ($r = 0.672$, $p < 0.001$), suggesting that reducing credit risk is a key factor in enhancing manufacturing sector performance. Collateral Requirements (CR) showed a moderate positive correlation with Manufacturing Sector Performance (MSP) ($r = 0.378$, $p < 0.001$), indicating that lowering collateral requirements can positively influence sector performance.

In conclusion, the correlation analysis confirms that all independent variables have positive relationships with Manufacturing Sector Performance. Among these, Loan Processing Time, Credit Time Condition, and Bank Credit Risk showed strong correlations, while Availability of Credit, Interest Rate, and Collateral Requirements exhibited moderate correlations. These findings suggest that improving factors such as loan processing efficiency, credit conditions, and minimizing bank credit risk can substantially contribute to better performance in the manufacturing sector.

Table 8. Correlation analysis between bank credit financing and manufacturing sector performance

Correlations								
		AC_MEAN	IR_MEAN	LPT_MEAN	CTC_MEAN	BCR_MEAN	CR_MEAN	MSP_MEAN
AC_MEAN	Pearson Correlation	1	.311**	.245**	.330**	.273**	.221**	.422**
	Sig. (1-tailed)		.000	.000	.000	.000	.001	.000
	N	217	217	217	217	217	217	217
IR_MEAN	Pearson Correlation	.311**	1	.215**	.392**	.297**	.087	.328**
	Sig. (1-tailed)	.000		.001	.000	.000	.100	.000
	N	217	217	217	217	217	217	217
LPT_MEAN	Pearson Correlation	.245**	.215**	1	.681**	.643**	.467**	.677**
	Sig. (1-tailed)	.000	.001		.000	.000	.000	.000
	N	217	217	217	217	217	217	217
CTC_MEAN	Pearson Correlation	.330**	.392**	.681**	1	.656**	.586**	.664**
	Sig. (1-tailed)	.000	.000	.000		.000	.000	.000
	N	217	217	217	217	217	217	217
BCR_MEAN	Pearson Correlation	.273**	.297**	.643**	.656**	1	.421**	.672**
	Sig. (1-tailed)	.000	.000	.000	.000		.000	.000
	N	217	217	217	217	217	217	217
CR_MEAN	Pearson Correlation	.221**	.087	.467**	.586**	.421**	1	.378**
	Sig. (1-tailed)	.001	.100	.000	.000	.000		.000
	N	217	217	217	217	217	217	217
MSP_MEAN	Pearson Correlation	.422**	.328**	.677**	.664**	.672**	.378**	1
	Sig. (1-tailed)	.000	.000	.000	.000	.000	.000	
	N	217	217	217	217	217	217	217
**. Correlation is significant at the 0.01 level (1-tailed).								

Source: Own SPSS Computation (2025)

The correlation analysis reveals that availability of bank credit (AC_MEAN**)** has a moderate positive correlation with manufacturing sector performance ($r = 0.422$, $p < 0.01$), indicating that increased availability of bank credit is associated with improved manufacturing sector performance. Interest rate on loans (IR_MEAN) also shows a moderate positive correlation with

manufacturing sector performance ($r = 0.328$, $p < 0.01$), suggesting a somewhat weaker positive relationship compared to the availability of credit. Loan processing time (LPT_MEAN) demonstrates a strong positive correlation with manufacturing sector performance ($r = 0.677$, $p < 0.01$), showing that faster loan processing is highly related to improved manufacturing sector performance. Similarly, credit time conditions (CTC_MEAN) have a strong positive correlation with manufacturing sector performance ($r = 0.664$, $p < 0.01$), suggesting that favorable collateral conditions contribute to better performance.

Furthermore, bank credit risk (BCR_MEAN) shows a strong positive correlation with manufacturing sector performance ($r = 0.672$, $p < 0.01$), indicating that higher levels of credit risk are associated with better market performance. On the other hand, Collateral requirements (CR_MEAN) demonstrates a moderate positive correlation with manufacturing sector performance ($r = 0.378$, $p < 0.01$), indicating a less significant yet positive relationship.

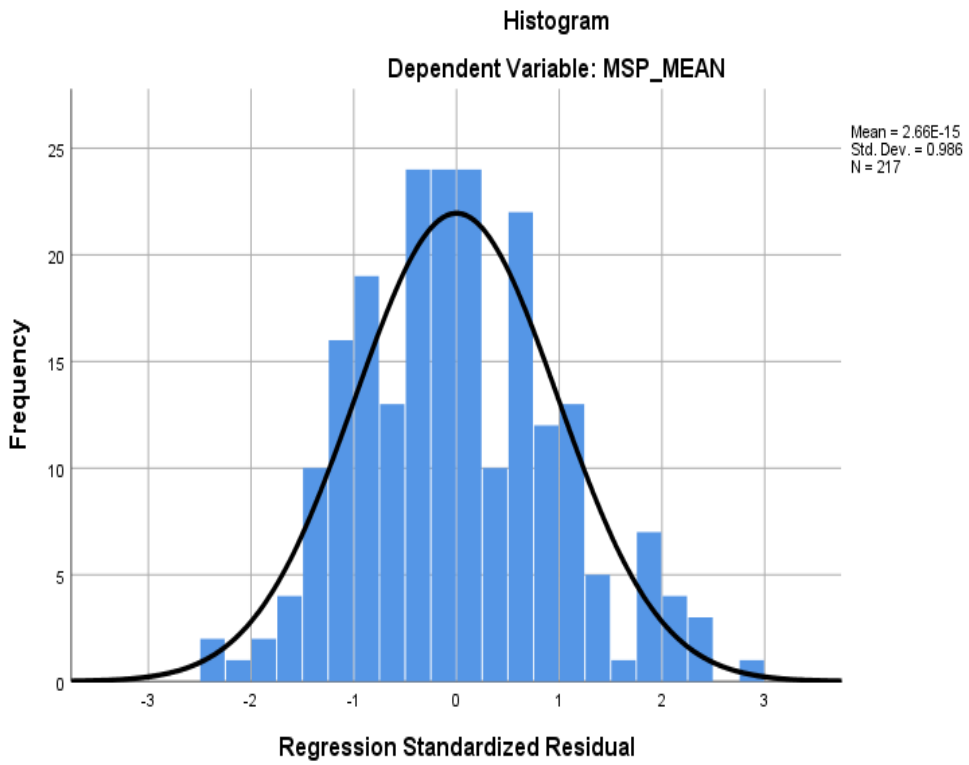
4.4. Testing Assumption of Multiple Regression

In order to accept the regression results of the study, most common assumption should be considered and fulfilled. For this reasons the following multiple regression assumption tests were conducted to check whether the assumptions were violated or not.

4.4.1. Normality Test

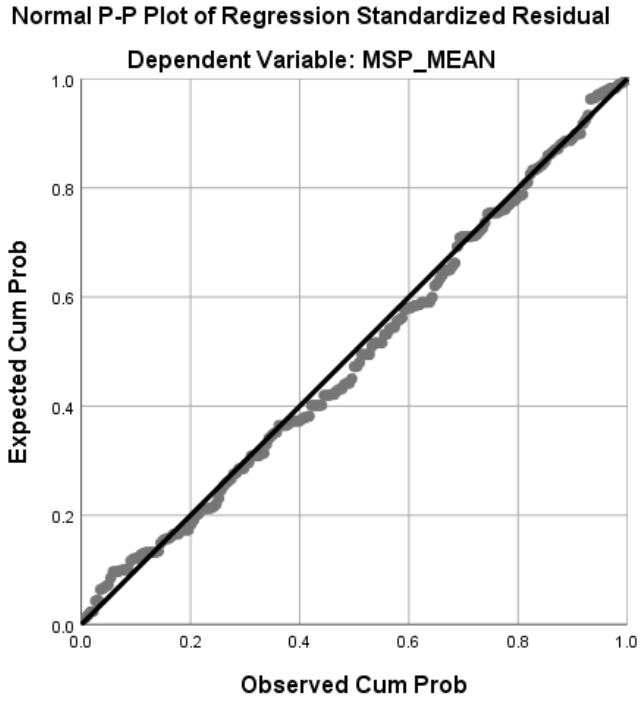
The distribution of score on the dependent variables should be “normal” describing symmetric, bell-shaped curve, having the greatest frequency of score around the mean, with smaller frequency towards the two extremes. According to Ghozali (2006), the normality can be seen on the data distribution when the curve does not pass through either the left or the right

Figure 2. Normality test



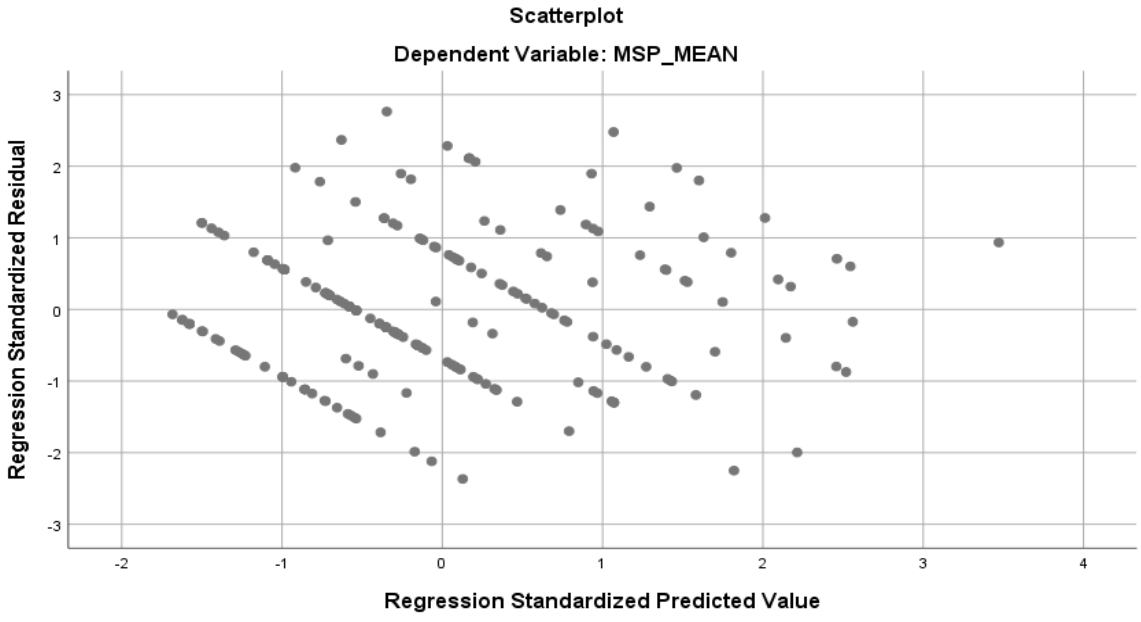
In the above figure 2 shown that, the data were distributed symmetrically around the centered of all scores. As such, if we drew a vertical line through the centered of the distribution, then it looks the same on both sides. This is known as a normal distribution and is characterized by the bell-shaped curve. This shape basically implies that the majority of scores lie around the centered of the distribution (so the largest bars on the histogram are all around the central value). Therefore in the population, the data on the dependent variable are normally distributed for each of the possible combinations of the level of the independent variables; each of the variables is normally distributed.

Figure 3. Normal p-p plot of regression standardized residual



4.4.2. Linearity test

Figure 4. Linearity test



Linearity assumption of multiple regressions was tested by scattered plot. Linearity means that the amounts of rate of change, between scores on two variables are constant for the entire range of scores for the variables. An underlying assumption of regression analysis is that the relationship between the variables is linear, meaning that the points in the scatter plot must form a pattern that can be approximated with a straight line. The plots below figure 4 shows that almost strong linear relationship. The points are evenly distributed on either side of the regression line.

4.4.3. Multi co linearity test statistics

Table 9. Multi co linearity

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	AC_MEAN	.843	1.186
	IR_MEAN	.768	1.302
	LPT_MEAN	.461	2.171
	CTC_MEAN	.343	2.914
	BCR_MEAN	.491	2.036
	CR_MEAN	.622	1.609

Dependent Variable: MSP_MEAN

Source: Own SPSS Computation (2025)

The results of the Collinearity diagnostics shown in Table 9. Reveal that all the variables in the multiple regression model have a Tolerance value greater than 0.10 and a Variance Inflation Factor (VIF) of less than 10. According to Hair et al. (1998), this finding suggests that there is no serious multicollinearity problem in the model. Specifically, the Tolerance values for each independent variable are well above the threshold of 0.10, and the VIFs are all below the critical value of 10, which is considered the cutoff for multicollinearity concerns. These results confirm that the independent variables are not highly correlated with one another, ensuring that the estimated regression coefficients are stable and reliable.

From these analyses, it is evident that the assumptions required for a valid multiple regression model are met. Since there are no tolerance values below 0.1 and no VIFs

above 10, we can conclude that multicollinearity does not pose a significant issue for this study. Therefore, the regression model is valid, and the results of the significance tests can be trusted. This indicates that the independent variables, such as Availability of Credit, Interest Rate, Loan Processing Time, Credit Time Condition, Bank Credit Risk, and Collateral Requirements, are all independent predictors of manufacturing sector performance without any significant interference from multicollinearity.

In summary, the multiple regression model in this study satisfies the necessary assumptions for validity, and the results suggest that there is a statistically significant relationship between the independent variables and manufacturing sector performance.

4.5.Regression Analysis

This regression analysis was conducted to know by how much the independent variable explains the dependent variable. It is also used to understand by how much each independent variable (availability of credit, interest rate, loan processing time, credit time condition, and collateral requirements) explains the dependent variable that is manufacturing sector performance.

Table 10. Model summary

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.790[a]	.624	.613	.26496	2.020
a. Predictors: (Constant), CR_MEAN, IR_MEAN, AC_MEAN, LPT_MEAN, BCR_MEAN, CTC_MEAN					
b. Dependent Variable: MSP_MEAN					

Source: Own SPSS Computation (2025)

From the findings shown in the Model Summary table, the correlation coefficient (R) is 0.790, indicating a strong positive relationship between the independent variables (Availability of Credit, Interest Rate, Loan Processing Time, Credit Time Condition, Bank Credit Risk, and

Collateral Requirements) and manufacturing sector performance. This suggests that these independent variables together strongly influence the performance of the manufacturing sector.

The coefficient of determination (R^2) is 0.624, which means that 62.4% of the variation in the manufacturing sector performance can be explained by the independent variables included in the model. In other words, the model explains more than half of the observed variability in the manufacturing sector's performance.

Thus, 62.4% of the variation in manufacturing sector performance is attributed to the independent variables such as the availability of credit, loan processing time, and credit risk, while the remaining 37.6% of the variation could be influenced by other unstudied factors or variables not included in the model.

Furthermore, the Adjusted R^2 value of 0.613 indicates that even after accounting for the number of predictors in the model, the independent variables still explain 61.3% of the variability in manufacturing sector performance. This suggests that the model is not overfitting and remains a good fit for the data.

The Standard Error of the Estimate of 0.26496 shows that the model's predictions are fairly accurate, with only a small amount of error between the predicted and actual values of manufacturing sector performance.

Lastly, the Durbin-Watson statistic of 2.020 confirms that there is no significant autocorrelation in the residuals, meaning that the errors are randomly distributed and independent, which further strengthens the validity of the model.

In conclusion, the regression model indicates that the independent variables (Availability of Credit, Loan Processing Time, Credit Time Condition, Bank Credit Risk, and Collateral Requirements) significantly contribute to explaining manufacturing sector performance. The model explains a substantial portion (62.4%) of the variation, and the results show that these variables are effective predictors of sector performance.

Table 11. Hypothesis testing

ANOVA[a]

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	24.444	6	4.074	58.028	.000[b]
	Residual	14.743	210	.070		
	Total	39.187	216			
a. Dependent Variable: MSP_MEAN						
b. Predictors: (Constant), CR_MEAN, IR_MEAN, AC_MEAN, LPT_MEAN, BCR_MEAN, CTC_MEAN						

Source: Own SPSS Computation (2025)

From Table 11, we can see that the F-statistic is 58.028, which is significant with a p-value of 0.000 ($p < 0.001$). This result indicates that there is less than a 0.1% chance that the F-ratio would be this large due to random variation. Therefore, the regression model significantly improves our ability to predict manufacturing sector performance (the dependent variable).

Since the p-value of 0.000 is much smaller than the standard significance level of 5% ($\alpha = 0.05$), we reject the null hypothesis with 95% confidence. This means that the independent variables (Availability of Credit, Interest Rate, Loan Processing Time, Credit Time Condition, Bank Credit Risk, and Collateral Requirements) as a whole are significantly related to the performance of the manufacturing sector.

Table 12. Summary of the result of multiple regression analysis

Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.079	.169		.465	.643
	AC_MEAN	.190	.044	.198	4.288	.000
	IR_MEAN	.030	.044	.033	.678	.498
	LPT_MEAN	.308	.060	.318	5.098	.000
	CTC_MEAN	.195	.064	.220	3.052	.003
	BCR_MEAN	.307	.064	.287	4.758	.000
	CR_MEAN	-.059	.047	-.067	-1.244	.215

a. Dependent Variable: MSP_MEAN

Source: Own SPSS Computation (2025)

The beta value in regression analysis is a measure of the strength and direction of the relationship between an independent variable and the dependent variable, with all other variables held constant. In your case, the dependent variable is manufacturing sector performance (MSP), and the independent variables are factors related to bank credit financing. The results from the unstandardized and standardized coefficients in your table show how much the manufacturing sector performance changes with each independent variable.

Based on the unstandardized coefficients, the table indicates how much the manufacturing sector performance (MSP) changes with a one-unit increase in each of the independent variables when all other factors are constant. For instance, a one-unit increase in the availability of credit (AC) results in an increase in MSP by 0.190, a one-unit increase in loan processing time (LPT) results in an increase in MSP by 0.308, a one-unit increase in credit time condition (CTC) results in an increase in MSP by 0.195, and a one-unit increase in bank credit risk (BCR) leads to an increase in MSP by 0.307. However, interest rate (IR) and collateral requirements (CR) have much less

noticeable effects, with IR showing a minimal increase in MSP by 0.030, and CR showing a slight negative effect of -0.059.

Looking at the standardized coefficients, we can assess the relative importance of each independent variable on manufacturing sector performance. The availability of credit (AC) has the highest standardized beta of 0.198, which indicates that it has the most significant impact on manufacturing sector performance among the independent variables. This suggests that as the availability of credit increases, the manufacturing sector's performance improves substantially. Following that, loan processing time (LPT) has a standardized beta of 0.318, which is also significant, showing that shorter loan processing times are associated with better performance in the manufacturing sector. Additionally, bank credit risk (BCR), with a beta of 0.287, also significantly impacts the sector's performance, indicating that even with increased risk, the manufacturing sector benefits when banks are more flexible with credit. Credit time condition (CTC) also has a positive but slightly weaker impact on MSP, with a beta of 0.220.

On the other hand, interest rate (IR) (beta = 0.033) and collateral requirements (CR) (beta = -0.067) are less influential. The interest rate's effect is statistically insignificant (p-value = 0.498), suggesting that variations in interest rates do not strongly affect the manufacturing sector’s performance in this context. Similarly, collateral requirements have a small negative impact, but this effect is also not significant (p-value = 0.215), meaning that while higher collateral demands may slightly reduce performance, the relationship is not statistically significant.

4.6.Result of Hypothesis Testing

4.6.1. Test for Availability of Credit (AC)

- Null Hypothesis (H_0): There is no significant effect of Availability of Credit on Manufacturing Sector Performance.
- Alternative Hypothesis (H_1): Availability of Credit has a significant effect on Manufacturing Sector Performance.

  The p-value for Availability of Credit (AC) is 0.000, which is less than 0.05. Therefore, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). This means that availability of credit significantly impacts manufacturing sector performance. A

higher availability of credit is positively related to better performance in the manufacturing sector.

4.6.2. Test for Interest Rate (IR)

- Null Hypothesis (H_0): There is no significant effect of Interest Rate on Manufacturing Sector Performance.
- Alternative Hypothesis (H_1): Interest Rate has a significant effect on Manufacturing Sector Performance.

For Interest Rate (IR), the p-value is 0.498, which is greater than 0.05. Therefore, we fail to reject the null hypothesis (H_0). This means that interest rate does not significantly affect manufacturing sector performance. The interest rate appears to have little to no influence on the sector's performance in this case.

4.6.3. Test for Loan Processing Time (LPT)

- Null Hypothesis (H_0): There is no significant effect of Loan Processing Time on Manufacturing Sector Performance.
- Alternative Hypothesis (H_1): Loan Processing Time has a significant effect on Manufacturing Sector Performance.

The p-value for Loan Processing Time (LPT) is 0.000, which is less than 0.05. Therefore, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). This indicates that loan processing time significantly affects manufacturing sector performance. The shorter the processing time for loans, the better the performance of the manufacturing sector.

4.6.4. Test for Credit Time Condition (CTC)

- Null Hypothesis (H_0): There is no significant effect of Credit Time Condition on Manufacturing Sector Performance.
- Alternative Hypothesis (H_1): Credit Time Condition has a significant effect on Manufacturing Sector Performance.

The p-value for Credit Time Condition (CTC) is 0.003, which is less than 0.05.

Therefore, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). This suggests that credit time conditions have a significant positive impact on manufacturing sector performance. More favorable credit terms and conditions lead to improved performance in the sector.

4.6.5. Test for Bank Credit Risk (BCR)

- Null Hypothesis (H_0): There is no significant effect of Bank Credit Risk on Manufacturing Sector Performance.
- Alternative Hypothesis (H_1): Bank Credit Risk has a significant effect on Manufacturing Sector Performance.

The p-value for Bank Credit Risk (BCR) is 0.000, which is less than 0.05. Therefore, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1). This shows that bank credit risk significantly influences manufacturing sector performance. As the willingness of banks to take on credit risk increases, the performance of the manufacturing sector improves.

4.6.6. Test for Collateral Requirements (CR)

- Null Hypothesis (H_0): There is no significant effect of Collateral Requirements on Manufacturing Sector Performance.
- Alternative Hypothesis (H_1): Collateral Requirements have a significant effect on Manufacturing Sector Performance.

The p-value for Collateral Requirements (CR) is 0.215, which is greater than 0.05. Therefore, we fail to reject the null hypothesis (H_0). This means that collateral requirements do not have a significant effect on manufacturing sector performance in this case. The relationship between collateral requirements and sector performance is not statistically significant.

4.7. Result Discussion

Based on the multiple regression analysis, the results indicate that several of the independent variables have a significant effect on the performance of the manufacturing sector in Debremarkos Town. The variable Availability of Credit (AC) shows a positive and significant relationship with manufacturing sector performance, suggesting that when credit becomes more accessible, the performance of manufacturing businesses improves. This aligns with the general expectation that access to financing can boost the productivity and growth of manufacturing firms.

Interest Rate (IR), however, shows an insignificant relationship with manufacturing sector performance. This finding suggests that, within the context of Debremarkos Town, interest rates might not have as substantial an impact on manufacturing sector performance as anticipated. It could be due to other external factors influencing the manufacturing sector or the possibility that businesses in this area may have access to credit at relatively stable rates.

The variable Loan Processing Time (LPT) also demonstrates a strong positive impact on manufacturing sector performance. This means that faster loan processing times contribute to better performance within the sector, indicating that reducing bureaucratic delays and improving efficiency in loan approval processes could be key for enhancing manufacturing growth.

Credit Time Condition (CTC) has a positive and significant effect on manufacturing sector performance as well. This suggests that favorable loan repayment terms and flexible credit conditions can encourage manufacturers to invest in growth and innovation, ultimately boosting their performance.

On the other hand, Bank Credit Risk (BCR) appears to have a positive and significant relationship with manufacturing sector performance. While this might seem counterintuitive at first, it could indicate that banks are more willing to provide credit to higher-risk manufacturers, possibly due to a robust risk management strategy or collateral securities. This also implies that credit risk management strategies may not be hindering sector performance, but rather facilitating access to necessary capital.

Lastly, Collateral Requirements (CR) show a negative relationship with manufacturing sector performance, though this effect is not statistically significant. This suggests that stringent collateral requirements might limit the ability of some manufacturers to access the necessary credit, potentially slowing down the growth of their businesses. While not statistically significant, it could be an area of concern where more flexible collateral policies could be beneficial for enhancing the performance of the manufacturing sector.

In summary, the findings reveal that while several factors like Availability of Credit, Loan Processing Time, Credit Time Conditions, and Bank Credit Risk play a significant role in shaping the performance of the manufacturing sector, Interest Rates and Collateral Requirements may have a less direct or weaker impact. Therefore, policy recommendations would focus on improving access to credit and reducing bureaucratic inefficiencies in loan processing to support the growth of the manufacturing sector in Debremarkos Town.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter summarizes the findings of the study on the effect of bank credit financing on the performance of the manufacturing sector in Debremarkos Town. The research aimed to explore how various aspects of bank credit-such as availability of credit, interest rates, loan processing times, credit time conditions, credit risk, and collateral requirements-affect the manufacturing sector's performance. The results are discussed in terms of the significance and impact of these variables on manufacturing performance, offering insights and recommendations for improving credit accessibility and the sector's overall growth.

5.2. Summary and Findings

This study aimed to explore the impact of bank credit financing on the performance of the manufacturing sector in Debremarkos Town, focusing on six key independent variables: Availability of Credit (AC), Interest Rate (IR), Loan Processing Time (LPT), Credit Time Conditions (CTC), Bank Credit Risk (BCR), and Collateral Requirements (CR), with Manufacturing Sector Performance (MSP) as the dependent variable. The results of the analysis revealed that four of these factors-Availability of Credit (AC), Loan Processing Time (LPT), Credit Time Conditions (CTC), and Bank Credit Risk (BCR)-had a significant positive effect on manufacturing sector performance. Specifically, Availability of Credit showed a strong positive correlation with MSP, indicating that easier access to credit directly contributes to better performance in the sector. Similarly, Loan Processing Time and Credit Time Conditions also had significant positive relationships with MSP, meaning that faster processing times and favorable credit terms supported improved business operations and growth.

However, Interest Rate (IR) did not demonstrate a significant effect on manufacturing sector performance, suggesting that within the context of this study, interest rates were not a primary factor influencing performance. Collateral Requirements (CR), although negatively correlated, did not show a significant impact either, meaning that while high collateral demands could discourage borrowing, they did not substantially affect performance in this study. Overall, the

findings highlight the importance of credit access, favorable terms, and efficient loan processes in enhancing the performance of manufacturing businesses in Debremarkos Town.

5.3. Conclusion

The purpose of this study was to examine the impact of bank credit financing on the performance of the manufacturing sector in Debremarkos Town. The analysis considered several variables related to bank credit financing, including Availability of Credit (AC), Interest Rate (IR), Loan Processing Time (LPT), Credit Time Conditions (CTC), Bank Credit Risk (BCR), and Collateral Requirements (CR), with the dependent variable being Manufacturing Sector Performance (MSP). The findings of the study reveal that four out of the six independent variables significantly affect the performance of the manufacturing sector, while two do not show a significant relationship.

Availability of Credit (AC) emerged as a significant positive factor influencing manufacturing sector performance. The result showed that a higher availability of credit (p-value = 0.000, Beta = 0.198) is strongly associated with better manufacturing performance. This highlights the importance of accessible credit in improving operational efficiency and supporting growth in the sector. Conversely, Interest Rate (IR) did not significantly affect manufacturing performance (p-value = 0.498, Beta = 0.033). This suggests that, in the context of this study, the interest rate may not be as crucial a determinant of performance as other factors like credit availability and loan processing time.

Another critical factor, Loan Processing Time (LPT), showed a significant positive relationship with manufacturing sector performance (p-value = 0.000, Beta = 0.318). The quicker the loan processing, the more positively manufacturers perceive their ability to perform, as fast access to funds allows for timely investments in business activities. Similarly, Credit Time Conditions (CTC) also had a significant positive impact (p-value = 0.003, Beta = 0.220). Manufacturers with favorable credit terms, such as longer repayment periods and better conditions, perform better, as these conditions ease financial pressure and support sustainability.

Bank Credit Risk (BCR) was another significant variable (p-value = 0.000, Beta = 0.287), indicating that despite its role as a risk factor, proper management of bank credit risk can lead to

positive outcomes for the manufacturing sector. A well-structured risk management framework ensures that businesses can access credit responsibly, which supports long-term growth and stability. On the other hand, Collateral Requirements (CR) showed an insignificant negative relationship with manufacturing sector performance (p-value = 0.215, Beta = -0.067). While collateral requirements did not have a significant negative impact, reducing these requirements could encourage more manufacturers to apply for loans, potentially improving overall sector performance.

In summary, the study concluded that factors such as the availability of credit, loan processing time, credit time conditions, and bank credit risk play a significant role in influencing the performance of the manufacturing sector. However, interest rates and collateral requirements were found to be less significant in determining sector performance. These findings suggest that banks should focus on improving access to credit, reducing loan processing times, offering better credit conditions, and managing credit risk effectively to foster growth in the manufacturing sector. Reducing collateral requirements, although not significant in this study, could also be beneficial in encouraging more manufacturers to seek loans and enhance their business outcomes.

5.4. Recommendation

Based on the findings of this study, several key recommendations can be made to improve the impact of bank credit financing on the manufacturing sector in Debremarkos Town. First, it is recommended that banks enhance the accessibility of credit (AC) to manufacturers. The study found that the availability of credit has a significant positive effect on manufacturing performance. To achieve this, banks should simplify the loan application process and offer financial products tailored specifically for the manufacturing sector. Financial education programs should also be introduced to help manufacturers understand how to access credit more effectively. Additionally, the time it takes for loans to be processed (LPT) was found to significantly impact manufacturing performance, suggesting that banks should streamline their loan approval processes to ensure that manufacturers can access funds in a timely manner. By investing in technology and improving internal procedures, banks can reduce delays and enable manufacturers to seize opportunities without financial constraints.

Moreover, the study highlighted the importance of credit time conditions (CTC) on the performance of manufacturers. It is recommended that banks offer more flexible repayment terms, such as longer repayment periods or adjustable interest rates. This flexibility can reduce financial pressure on manufacturers, allowing them to invest in growth and innovation. Another key finding from the study was the significant effect of bank credit risk (BCR) on manufacturing performance. Banks should work towards balancing the need to manage risk with the need to provide accessible credit. This could involve offering loans with lower interest rates or more favorable terms to manufacturers, particularly those with a solid track record of business performance. It is also recommended that banks consider exploring innovative forms of collateral to support manufacturers who may struggle to meet traditional collateral requirements (CR). Lowering the barriers to accessing credit, by offering alternatives to traditional collateral, could encourage more manufacturers to apply for loans.

Despite the negative but insignificant effect of interest rates (IR) on manufacturing performance, it remains essential for banks to monitor and adjust their lending policies in line with market conditions. Competitive interest rates can make loans more affordable for manufacturers, ultimately supporting the sector's growth. Additionally, while collateral requirements showed a negative but insignificant impact, they still pose a challenge for many small and medium-sized enterprises (SMEs). It is recommended that banks consider reducing collateral requirements or offering more flexible forms of collateral to facilitate easier access to credit for manufacturers. Furthermore, it is important for banks to collaborate with local business development organizations to offer capacity-building programs for manufacturers. These programs can help businesses improve their financial management and ensure they make the most effective use of the credit they receive.

Finally, promoting public-private partnerships between banks, government institutions, and manufacturing associations could help mitigate the risks associated with lending to the manufacturing sector. Government-backed loan guarantees or subsidized interest rates could encourage banks to offer credit more readily to manufacturers, supporting the sector’s growth and development. By addressing these recommendations, banks can contribute to a more dynamic and competitive manufacturing sector in Debremarkos Town, ultimately benefiting the local economy and promoting sustainable growth in the industry.

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Appendix 1.

Survey Questionnaire

Debremarkos University

Collage of Bussiness and Economics

Department of MBA

Dear Respondent,

Thank you for participating in this important research. The purpose of this questionnaire is to understand how bank credit financing impacts the performance of manufacturing businesses in Debremarkos Town. Your responses will provide valuable insights into how various credit-related factors, such as the availability of credit, interest rates, and loan terms, influence key business outcomes such as production capacity, revenue growth, profitability, market expansion, and operational efficiency.

The questionnaire is designed to gather your opinion on how access to bank credit has affected your business in different areas. Each statement is related to a specific aspect of your business performance, and you are asked to rate how strongly you agree or disagree with each statement based on your experience. Your honest responses will help create a better understanding of the role of bank financing in improving manufacturing sector performance.

Your answers will remain confidential and are crucial to the success of this study. Thank you for your time and valuable contribution to this research

Instruction one

In this section, we would like to gather some basic information about your business. Please answer the following questions based on your experience and the current status of your business operations. Your responses will help us understand the characteristics of your firm and provide context for analyzing the factors that influence business performance.

For each question, please select the option that best describes your business. If none of the provided options apply, feel free to specify in the "Other" section.

1. Sex 1) Male ☐ 2) Female ☐
2. Age 1) 25 and below ☐ 2) 26 – 35 ☐ 3) 36 – 45 ☐ 4) 46 and above ☐
3. Education level
   1) Up to grade 12 ☐ 2) Diploma ☐ 3) Degree ☐ 4) above degree ☐
4. How long has your business been in operation?
   1) Less than 1 year ☐ 2) 1-3 years ☐ 3) 4-7 years ☐ 4) More than 7 years ☐
5. What is your primary manufacturing focus?

   1) Food and Beverages ☐ 3) Construction Materials ☐
   2) Furniture and Wood Products ☐ 4) Other (Please specify) _____

6. What is the size of your business?

   1) Small (1-5 employees) ☐ 2) Medium (6 - 10 employees) ☐

Instruction two

In this section, you will be asked to evaluate various factors that may influence your business's performance, such as interest rates, loan processing time, and credit access. Please indicate your level of agreement with each statement based on your experience.

For each factor, use the following 5-point Likert scale to show your response:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

Please select the number that best represents your experience with each statement. Your responses will help us understand how these factors impact your business's production capacity, revenue growth, profitability, market expansion, and operational efficiency.

A. Bank Credit Financing

DIMENTIONS	**5**	**4**	**3**	**2**	**1**
Availability of credit					
1. It is easy for manufacturing firms in Debremarkos to access bank credit for operations.					
2. The availability of bank credit has increased in recent years for manufacturing firms in Debremarkos.					
3. Manufacturing firms in Debremarkos perform better due to the availability of adequate bank credit.					
4. Access to credit allows manufacturing firms to expand their operations.					
5. The availability of bank credit positively influences the growth prospects of manufacturing firms.					
Interest rate					
1. The interest rates on loans provided by banks are affordable for the business.					
2. The bank offers competitive interest rates compared to other financial institutions.					
3. The interest rates are manageable for the business to sustain its operations.					
4. High-interest rates are a barrier to accessing credit for the business.					
5. The bank provides lower interest rates for businesses with a good credit history.					
Loan processing time					
1. Loan processing times are quick and efficient in supporting the needs of manufacturing firms in Debremarkos.					
2. Faster loan processing has allowed manufacturing firms to take advantage of market opportunities.					

DIMENTIONS	5	4	3	2	1
3. Delayed loan processing has not hindered the operational efficiency of manufacturing firms in Debre markos.					
4. Short loan processing times positively contribute to the production levels of manufacturing firms.					
5. Quick approval of loans helps manufacturing firms improve their overall performance.					
Credit term and conditions					
1. Favorable credit terms (such as longer repayment periods and lower interest rates) help manufacturing firms improve profitability.					
2. Flexible loan repayment terms positively affect cash flow management for manufacturing firms.					
3. Manufacturing firms benefit from credit terms that allow for longer repayment periods.					
4. The terms and conditions of loans available to manufacturing firms are reasonable and supportive of business growth.					
5. Favorable loan terms contribute to the financial stability of manufacturing firms.					
Bank Credit Risk					
1. The bank evaluates the creditworthiness of businesses accurately before offering loans.					
2. The bank provides loans even to businesses with moderate credit risk, based on the business's potential.					
3. Trust in the bank's judgment in assessing the credit risk of the business.					
4. The bank ensures that loans are provided based on realistic risk assessments.					
5. The bank's evaluation of credit risk is transparent and understandable.					
Collateral requirements					
1. The collateral requirements are manageable and not a major obstacle to					

obtaining credit.					
2. The collateral requirements are clearly explained by the bank at the time of applying for a loan.					
3. The collateral requirements are reasonable considering the business's financial situation.					
4. The collateral required can be provided without difficulty.					
5. The bank allows flexibility in the types of collateral accepted for loans.					

B. Manufacturing sector Performance

DIMENTIONS	**5**	**4**	**3**	**2**	**1**
Manufacturing sector performance					
1. Access to bank credit has significantly increased your firm's production capacity in the past year.					
2. The availability of bank loans has enabled your firm to purchase new machinery and technology, thereby increasing production capacity.					
3. Bank credit has helped your firm significantly increase the number of units produced in the last year.					
4. Access to bank credit has significantly contributed to the growth of your firm's revenue over the past year.					
5. Bank financing has enabled your firm to invest in marketing and sales activities, which have contributed to revenue growth.					

Thank you for your participation!

Appendix 2

Descriptive Statistics

Descriptive Statistics

	Mean	Std. Deviation	N
MSP_MEAN	2.5843	.42593	217
AC_MEAN	2.6378	.44206	217
IR_MEAN	2.6691	.47122	217
LPT_MEAN	2.6101	.43979	217
CTC_MEAN	2.5825	.48138	217
BCR_MEAN	2.5659	.39923	217
CR_MEAN	2.9055	.48621	217

Source: Own SPSS Computation (2025)

Correlation Coefficient

Correlations

		AC_MEAN	IR_MEAN	LPT_MEAN	CTC_MEAN	BCR_MEAN	CR_MEAN	MSP_MEAN
AC_MEAN	Pearson Correlation	1	.311**	.245**	.330**	.273**	.221**	.422**
	Sig. (1-tailed)		.000	.000	.000	.000	.001	.000
	N	217	217	217	217	217	217	217
IR_MEAN	Pearson Correlation	.311**	1	.215**	.392**	.297**	.087	.328**
	Sig. (1-tailed)	.000		.001	.000	.000	.100	.000
	N	217	217	217	217	217	217	217
LPT_MEAN	Pearson Correlation	.245**	.215**	1	.681**	.643**	.467**	.677**
	Sig. (1-tailed)	.000	.001		.000	.000	.000	.000
	N	217	217	217	217	217	217	217
CTC_MEAN	Pearson Correlation	.330**	.392**	.681**	1	.656**	.586**	.664**
	Sig. (1-tailed)	.000	.000	.000		.000	.000	.000
	N	217	217	217	217	217	217	217
BCR_MEAN	Pearson Correlation	.273**	.297**	.643**	.656**	1	.421**	.672**
	Sig. (1-tailed)	.000	.000	.000	.000		.000	.000
	N	217	217	217	217	217	217	217

CR_MEAN	Pearson Correlation	.221**	.087	.467**	.586**	.421**	1	.378**
	Sig. (1-tailed)	.001	.100	.000	.000	.000		.000
	N	217	217	217	217	217	217	217
MSP_MEAN	Pearson Correlation	.422**	.328**	.677**	.664**	.672**	.378**	1
	Sig. (1-tailed)	.000	.000	.000	.000	.000	.000	
	N	217	217	217	217	217	217	217
**. Correlation is significant at the 0.01 level (1-tailed).								

Source: Own SPSS Computation (2025)

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.790[a]	.624	.613	.26496	2.020
a. Predictors: (Constant), CR_MEAN, IR_MEAN, AC_MEAN, LPT_MEAN, BCR_MEAN, CTC_MEAN					
b. Dependent Variable: MSP_MEAN					

Source: Own SPSS Computation (2025)

ANOVA[a]

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	24.444	6	4.074	58.028	.000[b]
	Residual	14.743	210	.070		
	Total	39.187	216			

a. Dependent Variable: MSP_MEAN

b. Predictors: (Constant), CR_MEAN, IR_MEAN, AC_MEAN, LPT_MEAN, BCR_MEAN, CTC_MEAN

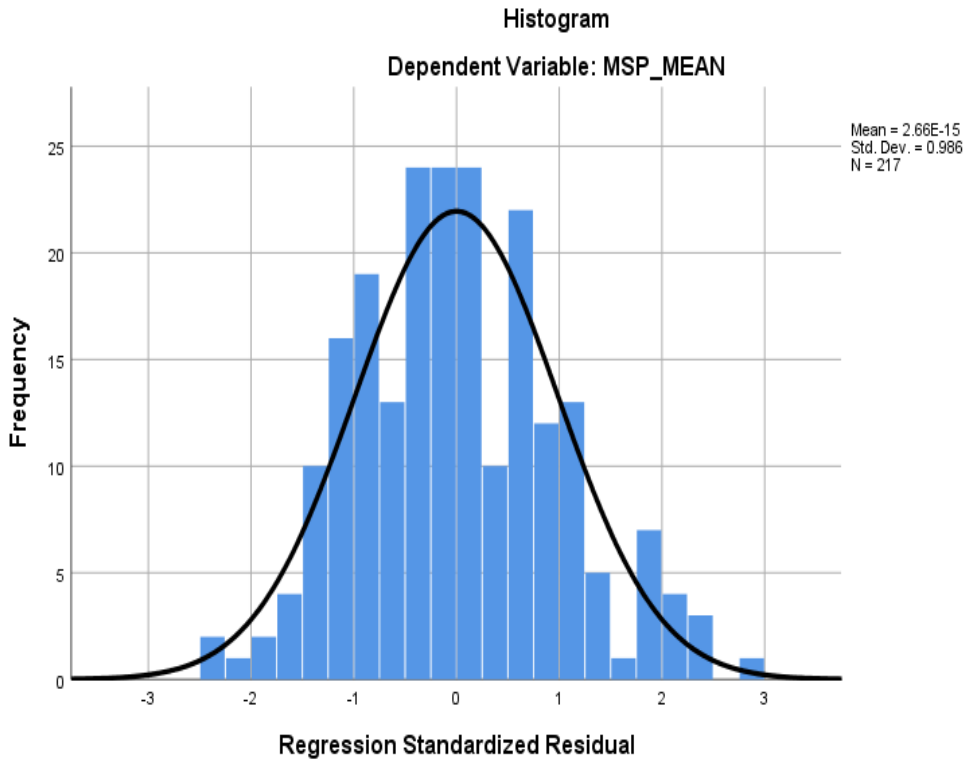
Source: Own SPSS Computation (2025)

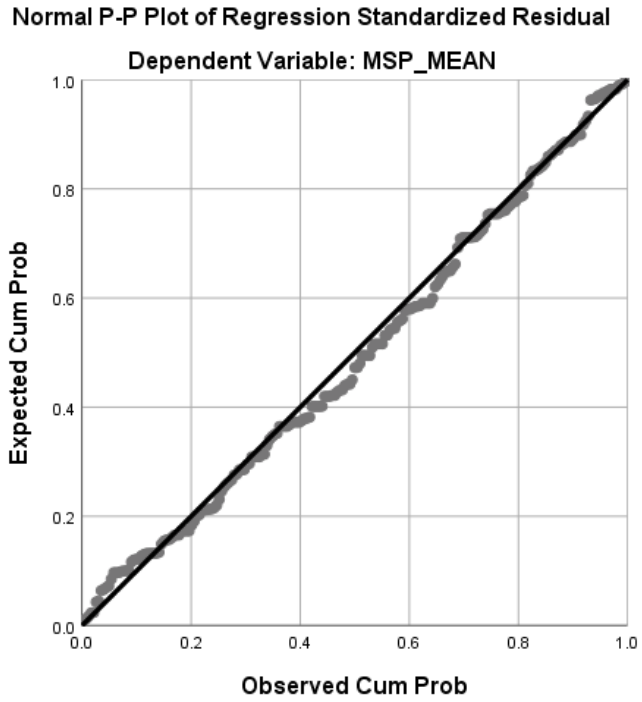
Collinearity Statistics

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	AC_MEAN	.843	1.186
	IR_MEAN	.768	1.302
	LPT_MEAN	.461	2.171
	CTC_MEAN	.343	2.914
	BCR_MEAN	.491	2.036
	CR_MEAN	.622	1.609

Dependent Variable: MSP_MEAN

Source: Own SPSS Computation (2025)


Histogram
Dependent Variable: MSP_MEAN
Mean = 2.66E-15
Std. Dev. = 0.986
N = 217
Frequency
25
20
15
10
5
0
-3
-2
-1
0
1
2
3
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: MSP_MEAN
Expected Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
Observed Cum Prob