

**DETERMINANTS OF CREDIT RISK MANAGEMENT TECHNIQUES AMONG  
AUTOMOTIVE COMPANIES IN NAIROBI CITY COUNTY**

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## APPROVAL

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## **DEDICATION**

My family has provided me with both emotional and financial support and encouragement, which has added to the depth of my being and pushed me to continue this study. I would want to dedicate my dissertation work to them.

## ABSTRACT

The practice of purchasing vehicles on credit has introduced a dynamic element to the industry, with inherent risks associated with default. However, this rapid growth, spurred by rising car ownership and fueled by loan-based purchases, rests on a delicate foundation: credit risk. This high loan volume amplifies the potential impact of loan defaults. Effective credit risk management can reduce defaults by unlocking further expansion and financial opportunities for the industry. As a result, the purpose of this research is to investigate the factors that determine credit risk management among automotive firms in Nairobi City County. The specific objectives of the study were to evaluate the effect of firm-specific determinants, industry-specific determinants, macroeconomic determinants on credit risk management of automobile firms in Nairobi City County, and to investigate the moderating effect of corporate governance on the relationship between determinants and credit risk management of automobile firms in Nairobi City County. Agency, resource dependency and information asymmetry theories. The positivist methodology is appropriate for this research because of the quantitative character of the data. The study adopted a descriptive survey design. The study targeted 51 registered motor vehicle dealers and assemblers in Nairobi City County. The unit of analysis was motor vehicle dealers and assemblers while the unit of inquiry was finance managers. The study utilized census sampling technique, and the sample size is 51. The study was collected primary data through a structured questionnaire. The study period was between March and April 2025. To ensure data quality, the study utilized content validity to establish suitability of the instrument and Cronbach alpha to establish internal consistency. The study used descriptive statistics for quantitative data that shall include means generation, frequencies, standard deviation and percentages to help generalize the findings. Besides, the study used inferential statistics such Pearson correlation and inferential statistics with aid of SPSS version 26.0. Tables and figures in the form of pie charts and bar graphs were adopted for presentation of data. The analysis revealed that the firm specific factors had significant impact on the model, with a coefficient (B) of 0.287 and a p-value of 0.000. The beta coefficient for Industry specific factors was 0.221. The observed values are both statistically significant (B=.207, p=.013). Another variable that made a distinct and important contribution to the model was the Macro-economic determinants (B=.234, p=.001). The introduction of corporate governance as a moderator increased the R square from 60.5% to 79.8%, this change was significant at  $P < 0.05$ . The study concluded that three determinants had significant effect on credit risk management while corporate governance is a significant moderator on the relationship between determinant and credit risk management. This study contributes to both theoretical and practical knowledge by demonstrating how firm-specific, industry-specific, and macroeconomic determinants influence credit risk management in the automotive sector. It highlights the significant moderating role of corporate governance and offers policy and managerial recommendations to enhance credit risk practices through governance and technological integration. However, the study is limited to Nairobi City County, which may restrict the generalizability of findings to other regions. Its cross-sectional design limits causal inference over time, and reliance on self-reported questionnaire data may introduce respondent bias. Additionally, the study excludes qualitative insights that could offer deeper contextual understanding.

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## **ABBREVIATION AND ACRONYMS**

<b>EVs</b>	Electric Vehicles
<b>KAM</b>	Kenya Association of Manufacturer
<b>GDP</b>	Gross Domestic Problem
<b>CAMEL</b>	Capital Adequacy, Asset Quality, Management, Earnings, Liquidity
<b>CPI</b>	Consumer Price Index
<b>NPL</b>	Non-Performing Loan

## DEFINITION OF TERMS

**Credit Risk Management:** In the context of the automotive industry, credit risk management refers to the set of practices and strategies employed by lenders to minimize the potential for financial losses arising from borrower defaults on car loans, leases, and other financing arrangements (Xie et al., 2023).

**Firm Specific Factors:** In the context of the automotive industry, firm-specific factors refer to the unique attributes and characteristics of a particular company that influence its performance, competitiveness, and ultimately, credit risk (Williamson, 2008)

**Industry Specific Factors:** are those external forces that affect all players within the market, regardless of individual company performance. These factors can significantly influence credit risk assessment for automotive loans and other financing arrangements ((Pfeffer & Salancik, 2003).

**Macro-Economic Determinants:** in the context of the automotive industry are broad economic factors that influence the overall performance and health of the industry at a macro level. These determinants impact the industry as a whole and can significantly affect various aspects, including production, sales, and consumer behavior (Sharma et al., 2024)

**Corporate Governance:** In the automotive sector, it pertains to the framework of regulations, policies, and procedures that govern the management and oversight of enterprises within the sector. It entails reconciling the interests of a company's many stakeholders, including owners, management, consumers, suppliers, financiers, government, and the community (Sadaa et al., 2023).

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Credit risk management is a complex balancing act, where financial confidence is extended while also protecting against future losses. On one side, it stimulates economic expansion by facilitating loans and investments, while on the other hand, it protects lenders and investors from the risks associated with unpaid debts. Gaining insight into the factors that influence this important field of study is essential for maintaining a balance between advancement and caution (Habbal et al., 2024).

Managing credit risk is a continuously evolving process that adapts to changes in the economic and technical environment (Hurlbert et al., 2019). Highly efficient firms actively adopt continuous improvement, using insights gained from previous failures and market swings to enhance their risk management frameworks. Conducting regular stress testing simulations helps in preparing for the most severe situations, guaranteeing the ability to withstand economic instability (Hurlbert et al., 2019).

Credit risk in the automotive industry is a critical consideration for both lenders and businesses involved in the sector (Xie et al., 2023). This risk revolves around the potential financial losses that may arise due to borrowers, particularly consumers and dealerships, being unable to fulfill their repayment obligations for auto loans or financing. Economic conditions, consumer financial health, and effective risk mitigation strategies are pivotal in addressing credit risk for lenders and businesses involved in auto financing. Adjusting to shifting market dynamics and regulatory environments will be essential for the automobile industry to retain its financial stability and ensure its continued viability as the industry continues to undergo transformation. While developed countries have successfully managed their credit risk in automotive industry, the same cannot be reflected in developing countries including Kenya (ALrfai et al., 2022).

#### 1.1.1 Determinants of Credit Risk Management

In the United States, the credit default rate for vehicle purchases using credit remains relatively low, typically ranging from 1-2%. The robust credit infrastructure, stringent lending standards, and a stable

economy contribute to the overall low default rates in the automotive financing sector. Lenders in the U.S. employ thorough credit assessments, ensuring that borrowers have the financial capacity to meet their repayment obligations (Klee et al., 2023). In Germany, the credit default rate for vehicle purchases using credit is generally low, typically ranging from 1-2%. The country's strong financial infrastructure contributes to maintaining a healthy credit environment in the automotive industry. In Japan, the credit default rate for vehicle purchases using credit is remarkably low, typically ranging from 1-3%. The country's stable economy, disciplined financial practices, and high creditworthiness of consumers contribute to this low default rate (Jansen et al., 2023).

However, in Brazil, the credit default rate for vehicle purchases using credit varies but has been observed to be relatively higher than in some developed countries, ranging from 3-5%. Economic uncertainties, high-interest rates, and income inequality contribute to the challenges in credit repayment (Neto & Candido, 2021). In Pakistan, the credit default rate for vehicle purchases using credit varies but is generally moderate. Economic challenges, inflation, and occasional political instability contribute to fluctuations in credit default rates, which can range from 5-10% (Saleem & Masood, 2023). A credit risk analysis of 451 clients in the automotive parts sector in Croatia revealed significant exposure, with over 86% classified as high to medium risk based on dynamic financial and non-financial indicators. Only 13.08% were considered risk-free, highlighting widespread vulnerability in creditworthiness. This concentration of credit risk poses a threat to liquidity and operational stability in the automotive sector, potentially triggering a ripple effect across related industries due to delayed payments and rising default rates (Jakupović & Šupuković, 2017).

The auto sector in South Africa experiences a significant proportion of new automobile sales, ranging from 70-80%, being financed by loans. However, the business faces challenges since there are estimates of 5-10% of borrowers defaulting on their credit obligations. This risk is exacerbated by economic headwinds, dependence on imports, and competitive pressures (Naqvi, 2023). Loans are responsible for financing 50-60% of new vehicle sales in Nigeria's thriving automobile industry. Nevertheless, estimations depict a worrisome scenario, indicating that loan default rates might possibly reach 15-20%. This risk is exacerbated by economic volatility, dependence on foreign imports, and the adoption of assertive lending strategies (Olajide & Andrew, 2023).

Estimates indicate that credit default rates for vehicle loans in Ethiopia range from 5% to 12%. This unpredictability is influenced by factors such as economic instability, reliance on imports, and

changing regulatory frameworks (Asresa et al., 2023). Although there is a scarcity of data about the precise default rates in Uganda's vehicle loan sector, approximations indicate that they range from 8 to 15%. The danger is exacerbated by variables such as heavy reliance on imported secondhand cars, economic volatility, and the possibility of lenient lending procedures (Ndikubwimana et al., 2023).

The credit risk landscape in the automobile sector is influenced by a myriad of firm-specific determinants. Understanding how factors such as firm size, age, technology adoption, and the experience and qualification of staff impact credit risk management is crucial for enhancing the industry's financial resilience. Larger automobile firms often benefit from economies of scale, greater market presence, and diversified revenue streams (Bhatt et al., 2023). The age of an automobile firm is a reflective indicator of its historical performance, market adaptation, and resilience. Understanding how firm age shapes risk perception and management strategies is essential for crafting targeted risk mitigation measures. Accumulated knowledge and established practices can lead to a more mature and risk-averse approach to credit risk management. Embracing technology plays a crucial role in modern credit risk management. Utilizing big data and advanced analytics significantly improves borrower creditworthiness assessment accuracy and objectivity. The competence of staff directly impacts credit risk management effectiveness. Qualified and experienced credit risk managers can implement robust risk assessment procedures, design effective loan structures, and make informed lending decisions. Ongoing training and development programs ensure staff stay updated on industry best practices and emerging risks (Barra & Ruggiero, 2023).

Existing empirical studies have continued to report conflicting effect of firm specific factors on credit risk management. Svrtinov et al. (2019) shown that firm-specific factors significantly correlate with credit risk management. The correlation between bank size and credit risk management is inversely proportional, suggesting that an increase in bank size leads to a decline in credit risk management efficacy. These results are not supported by Raiter (2021) who suggested that if bank size increase, the credit risk management is enhance. Khan et al. (2023), who investigated the influence of bank-specific characteristics and credit risk management among commercial banks in Pakistan, came to the same conclusions as the previous study.

Rizqa and Haryono (2023) found that in addition to firm-specific features, industry-specific variables also play a significant influence in the formation of credit risk management methods within the car industry. Although operating under similar conditions, automotive firms differ in their responses to

competition, regulatory costs, and market pressures. Strategic choices like specializing in new or used vehicles influence customer risk profiles. Additionally, firms vary in adapting to compliance requirements, affecting the effectiveness of their credit risk management practices. Intense competition within the automotive market drives firms to adopt various strategies, which can impact credit risk management. Offering attractive interest rates and flexible loan terms to entice customers can increase loan volume but potentially attract higher-risk borrowers, raising default risk. Aggressive competition may lead to pressure to loosen credit criteria to expand market share, potentially increasing the likelihood of defaults. Fluctuations in import duties and taxes can unpredictably affect vehicle prices and consumer demand, impacting loan repayment capacities and credit risk assessment for borrowers (Shaheen et al., 2024).

Investigating the variables that affect credit risk management among Nepalese commercial banks was the goal of the research done by Bhatt et al. (2023). Industries were the primary focus of this research. The results demonstrate that market risk analysis significantly affects credit risk management. Also, when competition in the banking business grows, Feng et al. (2021) discovered that default risk decreases. Based on the findings, it seems that increasing the level of competition in the financial sector has a beneficial impact on alleviating credit limitations and lowering the risk of default. On the other hand, Hung and Quynh (2017) wanted to study the impact that competition has on credit risk management in Vietnam commercial banks between the years 2006 and 2016. According to the findings of the research, there is substantial evidence that the link between credit risk and competitiveness is non-linear and has a U-shaped structure.

Beyond internal and industry-specific factors, the broader economic landscape plays a crucial role in shaping credit risk management practices within the automobile sector (Sede et al., 2023). High inflation creates uncertainty and can lead to increased risk aversion among both consumers and lenders. This can make it more challenging for individuals to qualify for loans or discourage them from taking on debt, further dampening demand and impacting revenue streams for automobile firms. Increased interest rates can make existing loan repayments more burdensome for consumers, potentially leading to higher default rates and credit losses for lenders. The overall GDP growth rate reflects the health of the economy and influences both consumer confidence and borrowing capacity. During economic slowdowns, consumer confidence weakens, and potential car buyers may postpone

purchases or prioritize debt repayment over new loans, impacting sales and loan origination for automobile firms (Farang et al., 2023).

Inflation, the unemployment rate, and national savings are all positively correlated with credit risk management, according to Sharma et al. (2024). Conversely, national income, overall trade imbalance, and national debt are all negatively correlated with credit risk management. These results are relevant to the macroeconomic variables that were studied. In the banking systems of countries in Central and Eastern Europe, non-performing loans (NPLs) are negatively correlated with the aggregate of general macroeconomic condition indicators, according to the research of Kanapickienė et al. (2023). The hypothesis that the exchange rate and regulatory capitals have an effect on credit risk was not supported by Raiter (2021). In addition, Kharabsheh (2019) intended to gather information about the factors that determine credit risk management in the Jordanian banking industry. The findings indicated that there was no substantial influence on either the increase of the GDP or inflation.

Credit risk management is more affected by bank-specific variables than by macroeconomic ones, according to research by Havidz and Obeng-Amponsah (2020). Further explanation for the greater significance of bank-specific variables compared to macroeconomic variables, which means that banks are more resistant to changes in the macroeconomy, is that these banks practice careful management of their credit risk. In light of this, the objective of this study is to investigate the manner in which automobile manufacturers in Nairobi City County manage credit risk by contemplating firm-specific variables, industry-specific drivers, and macroeconomic factors.

In examining the determinants of credit risk management among automotive companies in Nairobi City County, it is essential to analyze existing literature on credit risk and management practices. This literature reveals various gaps and insights that can guide future research. A key distinction in the literature is the difference between studies that focus solely on credit risk and those that examine credit risk management. For instance, studies by Priyadi et al. (2021), Antony and Suresh (2023), Shaheen et al. (2024), and Handajani et al. (2024) center on credit risk, emphasizing factors like nonperforming loans and bank-specific issues. These studies, while informative regarding the nature of credit risk, do not delve into the broader scope of credit risk management practices, which is crucial for automotive companies that may face different operational challenges compared to traditional financial institutions. Conversely, research such as that conducted by Gwoździewicz and

Prokopowicz (2017), Kanapickienė et al. (2022), and Tehulu (2016) focuses explicitly on credit risk management. These studies explore various determinants, yet they primarily concentrate on financial markets, which may not adequately represent the unique landscape of the automotive sector in Kenya. This gap indicates a need for research that specifically addresses credit risk management practices within the automotive context.

Geographical relevance is another significant factor when assessing the applicability of existing studies. Notably, none of the studies reviewed are directly relevant to the Kenyan automotive sector, highlighting a critical gap in the literature. For example, Gwoździewicz and Prokopowicz (2017) and Kanapickienė et al. (2022) conducted their research within the context of financial markets in Europe and Central Eastern Europe, respectively. Their findings, while valuable, may not translate effectively to the Kenyan environment. Additionally, studies conducted outside Kenya, such as those by Bhatt et al. (2023) and Tilahun (2022), further underscore the geographical gap. These studies provide insights into credit risk management practices in commercial banks and microfinance institutions but fail to account for the specific dynamics of the automotive industry in Kenya. Knowing what factors influence credit risk management at automotive firms requires studies that are specific to this region.

The existing literature also varies in its focus on different determinants. Some studies, such as Kanapickienė et al. (2022) and Bhatt et al. (2023), emphasize macroeconomic factors influencing credit risk. These studies provide insights into how external economic conditions affect credit decisions, which could be relevant for automotive companies that are sensitive to economic fluctuations. In contrast, research by Priyadi et al. (2021) examines internal and external factors affecting credit risk, although it is limited to a specific context of rural banks in Indonesia. This focus on internal and external determinants is crucial, as automotive companies must consider both their operational capacities and the broader economic environment. Moreover, several studies, including those by Shaheen et al. (2024) and Handajani et al. (2024), concentrate on bank-specific factors, which may not be directly applicable to the automotive sector. The emphasis on these determinants highlights the necessity for research that encompasses a broader range of factors affecting credit risk management in automotive companies.

Another critical aspect is the timeliness of the studies. Several of the analyzed studies are outdated, with research such as Gwoździewicz and Prokopowicz (2017), Tehulu (2016), and Agegneu (2021) being over five years old. This age raises concerns about the applicability of their findings in today's

rapidly changing economic and regulatory environments. In contrast, more recent studies, including those by Kanapickienė et al. (2022), Priyadi et al. (2021), and Bhatt et al. (2023), provide updated insights, yet they still lack direct relevance to the Kenyan automotive context. The gap between the findings of these studies and the current realities faced by automotive companies in Nairobi City County underscores the need for fresh research that captures contemporary challenges and dynamics.

While there is a wealth of literature on credit risk and credit risk management, significant gaps remain regarding their application to the automotive sector in Kenya. Most existing studies focus on financial institutions or are geographically misaligned, failing to address the specific challenges faced by automotive companies. This landscape presents a compelling opportunity for future research that specifically investigates the determinants of credit risk management within the Kenyan automotive industry, incorporating the moderating effects of corporate governance to provide a more holistic understanding of the issues at hand.

### **1.1.2 Credit Risk Management in Automobile Industry in Kenya**

A substantial contribution to employment, economic development, and technical improvement is made by the car sector, which plays a crucial role in Kenya's economy. However, the industry, like many others, faces inherent risks, with credit risk standing out as a critical concern. Credit risk in Kenya's automotive sector denotes the possible financial loss that automotive firms may experience owing to the inability of their customers, including both individual consumers and corporate clients, to fulfill their financial commitments. This risk is inherent in the extension of credit by automotive firms, whether in the form of loans, financing, or credit sales, and it poses challenges that require strategic management for sustainable business operations (Gachigo et al., 2023).

Estimates suggest Kenya's auto industry loan default rate range between 5% and 12%. Reducing this rate even by a few percentage points can unlock significant growth and financial stability for the entire ecosystem. Effective credit risk management can reduce defaults by up to 15%, unlocking further expansion and financial opportunities for the industry (Deloitte, 2022), Managing credit risk safeguards lenders and ensures financial stability for the entire ecosystem.

Over the past five years, Kenya's motor vehicle sector has experienced a consistent decline in new vehicle sales, primarily due to escalating credit risks and challenging economic conditions. Data from the KMI and other industry reports highlight this downward trend. Between 2019 and 2024, the

automotive sector in Kenya experienced a steady rise in non-performing loans (NPLs), highlighting increasing credit risk. In 2019, while specific data for the automotive sector was limited, the overall banking sector maintained relatively stable asset quality with an NPL ratio of approximately 12.0%. However, the situation worsened in 2020 with the onset of the COVID-19 pandemic, which severely disrupted economic activity. The transport sector, which includes vehicle financing, saw NPLs surge from KSh 27.5 billion in September 2020 to KSh 43.9 billion in 2021 a 60% increase. This upward trend continued into 2021, with the overall NPL ratio across the banking industry rising to 14.0% by mid-year. In 2022, the Central Bank of Kenya reported a further 5.2% rise in auto financing NPLs, reflecting ongoing liquidity constraints within the sector. By 2023, the KAM reported that vehicle dealerships and assemblers accounted for 12% of NPLs in Kenya's trade sector, second only to real estate. This trend culminated in 2024, when the Central Bank's annual report showed that gross NPLs had increased significantly from KSh 576.1 billion in June 2023 to KSh 657.6 billion by June 2024 with the trade sector, including automotive businesses, being a key contributor to this rise (KAM, 2024; KBA, 2024; CBK, 2024; KMI, 2024).

Default risk is the risk that a borrower, typically a consumer purchasing a vehicle on credit, may fail to make the required payments (TAŞ, 2023). Economic downturns, job losses, or unexpected financial crises can contribute to default risk. Concentration risk occurs when a substantial share of a company's credit exposure is focused on a certain market sector, such as a specific car model or client demographic. Over-reliance on a particular segment increases vulnerability to market changes. For automotive companies involved in international trade, especially in vehicle imports, exposure to currency fluctuations poses a significant risk. Additionally, changes in interest rates can impact the cost of financing for both the company and its customers. The automotive industry is subject to various regulations, including those governing vehicle imports, emissions standards, and consumer protection. Non-compliance with these regulations can result in financial penalties and damage a company's creditworthiness (Shokoohyar et al., 2023).

To manage credit risk, majority of automotive firms have implemented various strategies such as Diversification, technological integration, credit scoring and analytics as well as collaboration with financial institutions (Kinini, 2023). Diversifying the credit portfolio by offering various financing options, catering to different customer segments, and engaging in both retail and corporate financing can help mitigate concentration risk. Utilizing advanced credit scoring models and data analytics

enables automotive companies to assess the creditworthiness of customers more accurately. This includes evaluating factors such as income levels, credit history, and debt-to-income ratios. Building strong relationships with financial institutions provides automotive companies with access to financial expertise, risk assessment tools, and collaborative risk management strategies. Financial institutions can share insights and help navigate complex credit landscapes. Implementing technology-driven solutions, such as automated credit application processes and real-time monitoring, enhances the efficiency and accuracy of credit risk management (Kadima, 2023).

Effectively managing credit risk is crucial for maintaining financial stability. Minimizing the impact of non-performing loans ensures that automotive companies can continue operations even during economic downturns (Nadebu, 2023). A transparent and well-managed credit risk framework fosters trust among customers. Providing fair and accessible financing options enhances customer loyalty, contributing to sustained business growth. Investor confidence is bolstered when automotive companies demonstrate robust credit risk management practices. This can attract investors, supporting the company's expansion and strategic initiatives (Baya, 2023).

However, majority of studies have been conducted among financial firms limiting their applicability to automotive industry. Svrtinov et al. (2019) aimed to investigate the determinants of credit risk management within the banking sector of the Republic of North Macedonia. The aim of the research by Bhatt, Ahmed, Iqbal, and Ullah (2023) was to examine the determinants of credit risk management in Nepalese commercial banks. With regard to inflation, economic growth, currency rates, and interest rates, Kituku and Oluoch (2021) wanted to determine the impact that macroeconomic factors have on the repayment of bank loans by retail borrowers in Kenya. Specifically, they were interested in estimating the impact of these variables. This creates a big vacuum in the context, which is something that the present research aims to fulfill.

### **1.1.3 Corporate Governance**

Corporate governance refers to the framework of rules, procedures, and oversight mechanisms used to direct and control multinational organizations, with a significant emphasis on ensuring responsible risk-taking and protection of stakeholders' interests (Moussa, 2019). At its core, corporate governance fosters structures that enable effective risk identification, management, and mitigation through internal control mechanisms and active board oversight. These structures are essential for promoting

transparency, maintaining investor confidence, and ensuring the sustainable performance of organizations, particularly in sectors prone to high operational and financial risks, such as banking (Rose, 2019).

A critical pillar of corporate governance in the context of risk oversight is management accountability, which entails establishing robust internal control systems and delineating roles and responsibilities to ensure performance alignment with strategic objectives. The Cadbury Report emphasized that management accountability requires firms to implement internal control mechanisms that facilitate risk management, performance evaluation, and ethical compliance (Ali et al., 2021). These mechanisms are fundamental for reducing exposure to risk and ensuring that executives uphold both regulatory compliance and fiduciary responsibilities.

Board oversight plays a vital role in institutionalizing risk governance practices. Boards are expected not only to monitor financial outcomes but also to engage proactively in risk-related decisions. Effective boards accomplish this by maintaining independence, evaluating risk exposures, and ensuring the organization has adequate risk controls in place. The independence of board members, especially non-executive and independent directors, enhances the objectivity of oversight and helps challenge managerial decisions that may increase the firm's risk profile. Independent board members provide checks and balances by contributing diverse expertise and exercising judgment that improves risk governance (Sadaa et al., 2023).

Moreover, risk management committees and other specialized governance structures are increasingly critical in supporting the board's oversight role. These committees are tasked with assessing and monitoring the firm's risk environment and ensuring that risk tolerance is aligned with strategic goals. Research by Sadaa et al. (2023) revealed that risk management committees, along with non-executive directors and board financial experience, have a significant negative influence on non-performing loans in the banking sector, underscoring their effectiveness in mitigating credit risk. Conversely, audit committees were found to have negligible influence on the same, suggesting variability in effectiveness among governance mechanisms.

In a related study, Hunjra et al. (2024) investigated the link between corporate governance and bank credit risk. The findings established that board size, board meetings, and board independence were significantly and negatively related to credit risk, demonstrating the importance of active governance

in risk containment. However, concentrated ownership was found to increase credit risk, likely due to diminished board independence and ineffective checks on management decisions. While the study identified key governance variables affecting credit risk, it did not assess the moderating role of governance structures, highlighting a notable gap in conceptual and empirical understanding.

An investigation of the connection between corporate governance, corporate social responsibility (CSR), and bank risk was carried out by Hunjra et al. (2024). Based on the findings of the research, it was determined that the credit risk of banks is considerably and adversely impacted by board size, board meetings, and board independence. On the other hand, credit risk for banks is greatly increased when ownership is concentrated. However, the study did not illustrate the moderating effect of corporate governance leaving both significant conceptual and empirical gaps. The study was conducted among commercial banks. A similar investigation was carried out by Sadaa et al. (2023), who investigated the relationship between corporate governance measures and non-performing loans. Negative effects on non-performing loans were shown to be caused by non-executive directors, board financial experience, and risk management committees, according to the results. At the same time, the results of the audit committee had a negligible impact on nonperforming loans. On the other hand, the research did not provide any evidence to support the role that corporate governance plays in mitigating the impact, leaving considerable conceptual and empirical gaps.

#### **1.1.4 Overview of Automobile Industry in Kenya**

Over the course of its history, the car industry in Kenya has seen considerable alterations, and it has continuously played an important part in the economic growth of the nation. Major cities in Kenya host a network of automotive dealerships representing various brands. These dealerships play a crucial role in vehicle sales, providing services such as maintenance and repairs. They contribute to the overall customer experience in the automotive market. The roots of Kenya's automobile industry can be traced back to the mid-20th century when the first assembly plants were established. These plants focused on assembling vehicles using imported kits. Over time, the industry expanded to include local manufacturing initiatives, with some companies producing components domestically to support the assembly process (Muthoni & Kinyua, 2020).

The Kenyan automobile industry is estimated to be on an upward trajectory, with annual sales figures hovering between 60,000 and 80,000 units in 2023. This growth, estimated at 5-10% annually, is

fueled by various factors, including increasing urbanization, rising disposable incomes, and an expanding middle class. However, used cars still dominate the market, accounting for an estimated 70-80% of total sales, compared to new cars at 20-30%. Popular brands like Toyota, Isuzu, Mitsubishi, Nissan, and Peugeot hold a significant market share (Kenya Motor Industry Association, 2024).

Kenya hosts several local assembly plants that engage in the assembly of various vehicle types. These plants cater to both the domestic market and neighboring countries. The assembly process involves putting together imported components, contributing to employment and skills development within the country. The Kenyan automobile market is characterized by its diversity, including a mix of new and used vehicles. The importation of used vehicles, particularly from countries like Japan, is a common practice due to affordability considerations. The market encompasses a wide range of vehicles, from small passenger cars and SUVs to commercial vehicles such as trucks and buses (KAM, 2022)

Government policies have a substantial impact on the automobile industry. One notable policy is the regulation of the age limit for imported used vehicles. This measure aims to address environmental concerns and enhance road safety by limiting the importation of older vehicles. Additionally, taxation policies and incentives play a crucial role in shaping the pricing and demand for vehicles. The future of the automobile industry in Kenya is shaped by emerging trends, including the global shift toward electric vehicles (EVs). Efforts are underway to introduce and promote EVs in line with sustainability goals. Additionally, technology integration, such as telematics and connectivity features, is becoming more prevalent in new vehicle models (KAM, 2022).

Few studies, on the other hand, have been carried out on the automated sector with a particular focus on account administration. In Kenya, Wanjohi and Kithae (2022) conducted research to see how the performance of motor vehicle firms was affected by different pricing tactics. According to Bosire and Owour (2018), on the other hand, they wanted to determine the influence that operating methods have on the performance of the automotive sector in Kenya. None of the study used credit risk management as measure of dependent variable in this case performance while Wanjohi and Kithae (2022) limited their study to motor vehicle companies indicating there is need to investigate credit risk management in automotive sector in Kenya.

## 1.2 Statement of the Problem

The automotive industry in Kenya has experienced substantial growth, driven largely by increased demand for vehicles and the prevalence of credit-based purchases (Kimani & Mutwiri, 2023). Currently, over 65% of vehicles are acquired through loans, highlighting the industry's dependence on credit financing (KBA, 2023). This financing structure makes the sector particularly vulnerable to credit risk, with loan default rates estimated to range between 5% and 12%. The implications are significant considering the Ksh 40 billion in annual auto loan disbursements, even a small reduction in defaults could enhance the financial health of the industry and its contribution to GDP and employment (CBK, 2023). Research suggests that effective CRM could reduce default rates by up to 15%, thereby unlocking further growth potential and financial sustainability for the sector (Deloitte, 2022).

Despite the centrality of credit risk to the automotive sector's stability, the majority of CRM research has focused on the banking and financial services sector, resulting in limited insights applicable to credit-reliant non-financial industries such as automotive retail. Bhatt et al. (2023) examined CRM determinants in Nepalese banks, and Noomen and Abbes (2018) studied Islamic microfinance institutions. These studies, however, were conducted in different countries and regulatory contexts, and they omitted factors that may be unique to the automotive sector, such as customer turnover rates, resale risk, and vehicle depreciation. As a result, there exists a contextual and methodological gap in understanding CRM practices within the automotive industry in Kenya.

Furthermore, existing empirical findings on CRM are inconsistent, partly due to variations in research contexts, conceptual frameworks, and methodologies. For instance, Svrtinov et al. (2019) identified a significant relationship between firm-specific factors and CRM, whereas Raiter (2021) attributed improved CRM to larger firm size. Bhatt et al. (2023) found market risk to be a critical industry-specific factor, while Hung and Quynh (2017) reported a non-linear U-shaped relationship between CRM and competitiveness. At the macro level, Sharma et al. (2024) observed positive correlations between CRM and inflation and unemployment, yet Kanapickienė et al. (2023) found macroeconomic instability to negatively impact CRM in Eastern Europe. These contradictions may stem from differences in industry types, economic environments, data periods, and the variables or indicators used to measure credit risk and its management, making it difficult to draw generalizable conclusions.

In addition to these conceptual and empirical inconsistencies, corporate governance an important mechanism for risk oversight and accountability has not been sufficiently examined as a moderating factor in the CRM process within the automotive sector. Although governance elements such as board independence, ownership structure, and risk management committees have been linked to enhanced transparency and internal control in financial firms (Ali et al., 2021; Sadaa et al., 2023), their role in influencing the effectiveness of CRM strategies in credit-intensive non-financial sectors remains largely uninvestigated. This omission represents a significant research gap, particularly in a high-risk sector like automotive sales, where governance can potentially mitigate adverse credit outcomes. Therefore, this study aimed to investigate the effect of firm-specific, industry-specific, and macroeconomic factors on credit risk management among automotive companies in Nairobi City County. It also sought to examine the moderating role of corporate governance in the relationship between these determinants and CRM, thereby addressing both a contextual gap in sector-specific literature and a conceptual gap in understanding governance influence on credit risk dynamics.

### **1.3 Research Objective**

#### **1.3.1 General Objective**

The main objective of this study was to examine the moderating effect of corporate governance on the determinants of credit risk management among automotive companies in Nairobi City County.

#### **1.3.2 Specific Objectives**

The specific objectives for the study were:

- i. To assess the effect of firm specific determinants on credit risk management of automotive firms in Nairobi City County
- ii. To examine the effect of industry specific determinants on credit risk management of automotive firms in Nairobi City County
- iii. To assess the effect of macroeconomic specific determinants on credit risk management of automotive firms in Nairobi City County
- iv. To investigate the moderating the effect of corporate governance on the relationship between determinants and credit risk management of automotive firms in Nairobi City County

## **1.4 Research Questions**

- i. What is the effect of firm specific determinants on credit risk management of automotive firms in Nairobi City County?
- ii. What is the effect of industry specific determinants on credit risk management of automotive firms in Nairobi City County?
- iii. What is the effect of macroeconomic determinants on credit risk management of automotive firms in Nairobi City County?
- iv. What is the moderating the effect of corporate governance on the relationship between determinants and credit risk management of automotive firms in Nairobi City County?

## **1.5 Scope of the Study**

The factors that determine credit risk management were the exclusive focus of the investigation within the scope of the research. Firm-specific variables, industry-specific factors, and macroeconomic drivers were identified as the elements that was used to influence the outcome. The dependent variable for the study was the credit risk management while corporate governance was used as a moderating variable. The study's geographical scope was limited to automotive firms in Nairobi City County. Nairobi county has the highest number of automotive firms in the county hence the preferred county for this study (Kenya economic Report, 2020). The study collected data using quantitative techniques specifically, structured questionnaires. The study was conducted in the months of April and May 2024.

## **1.6 Significance of the Study**

This study is significant as it addresses multiple knowledge gaps within the literature on credit risk management (CRM), specifically in the context of Kenya's automotive industry. First, while credit risk has been extensively studied in the banking and financial services sectors (Bhatt et al., 2023; Noomen & Abbes, 2018), there is limited empirical research focused on CRM in credit-intensive, non-financial industries such as automotive sales. This study contributes to closing this contextual gap by exploring CRM practices among automotive firms in Nairobi City County, offering industry-specific insights into a sector with high credit exposure but minimal academic scrutiny.

Second, prior research has produced inconsistent and inconclusive findings regarding the

determinants of CRM. Some studies have linked CRM effectiveness to firm-specific factors (Svrtinov et al., 2019), while others have emphasized industry dynamics (Bhatt et al., 2023) or macroeconomic influences (Sharma et al., 2024; Kanapickienė et al., 2023). This study adds clarity by integrating these variables into a single model and empirically testing their relative and combined effects on CRM, thus enhancing the conceptual understanding of how different determinants interact in a local, high-risk market.

Third, the moderating role of corporate governance in CRM remains underexplored in non-financial sectors. By examining how governance structures—such as board independence, oversight mechanisms, and accountability frameworks—influence CRM effectiveness, this study fills a theoretical and practical gap, extending the applicability of governance theories beyond traditional financial institutions. Collectively, the study contributes to academic literature, informs risk management practices in the automotive industry, and supports policy formulation aimed at strengthening credit systems in Kenya’s non-financial sectors.

## **1.7 Chapter Summary**

This chapter provided the background to the study by discussing key concepts related to credit risk management, corporate governance, and the automotive industry. It also presented the problem statement, clearly articulating the research gaps and the rationale for the study. The chapter further outlined the general and specific research objectives, formulated the research questions, highlighted the significance of the study to various stakeholders, and defined the scope of the study in terms of geographical, sectoral, and thematic focus.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter contains a review of literature on the subject proposed for study and organized under the following sub-headings, theoretical studies review, empirical review, summary of gaps that need to be filled by the study and the conceptual framework.

#### **2.2 Theoretical Framework**

The study was guided by views on various theories of macroeconomic factors, firm specific and industry specific factors.

##### **2.2.1 Information Asymmetry Theory**

Information Asymmetry Theory, proposed by George Akerlof in 1970, offers insights into the dynamics of transactions where one party possesses more information than the other (Bergh et al., 2019). This theory has profound implications across various economic sectors, shedding light on market inefficiencies, adverse selection, and moral hazard. Information Asymmetry Theory assumes that one party in a transaction possesses superior information compared to the other. In the used car market example, sellers typically have more information about the condition of their vehicles than buyers. The theory assumes that economic agents act rationally to maximize their utility. In the presence of information asymmetry, rational actors adjust their behavior to account for the lack of information or the risk of adverse outcomes. Information asymmetry leads to market inefficiencies, such as adverse selection and moral hazard, where the party with less information incurs higher costs or experiences adverse outcomes due to the hidden information possessed by the other party (Chod & Lyandres, 2021).

While Information Asymmetry Theory has significantly contributed to our understanding of market dynamics, it has also faced several critiques. Critics argue that Information Asymmetry Theory may overstate the extent of market failure resulting from information asymmetries. In many cases, market participants develop mechanisms, such as warranties, reputation systems, and third-party certifications, to mitigate the adverse effects of information asymmetry (Cheynel & Levine, 2020).

The theory's assumptions, particularly regarding rational decision-making and perfect information, have been criticized as oversimplified representations of real-world behavior. Human decision-making is often bounded by cognitive limitations, and information may be costly to acquire or interpret. Information asymmetry is not static but dynamic, with information evolving over time. Critics argue that the theory's focus on static information imbalances may overlook the role of learning, signaling, and strategic behavior in reducing information asymmetries over time (Naqvi et al., 2021).

Information Asymmetry Theory is relevant to this study as it explains how firm-specific characteristics influence credit risk management (CRM) in Nairobi's automotive sector. Given that over 65% of vehicle purchases are credit-based, firms often face challenges in assessing borrower creditworthiness due to limited information. According to Akerlof (1970), this asymmetry can lead to adverse selection and moral hazard. Firms with strong internal systems—such as credit scoring, customer profiling, and payment tracking—can reduce these information gaps, improving risk assessment and loan monitoring. Thus, firm-specific factors like size, technology, and data capabilities directly impact CRM effectiveness. This theory supports the study's first objective by linking internal firm resources to better credit risk control in a high-risk lending environment.

### **2.2.2 Resource Dependency Theory**

Pfeffer and Salancik (1978) presented the Resource Dependency Theory (RDT), which offers a significant framework for understanding how businesses manage their reliance on external resources in order to assure their continued existence and success. In the context of credit risk management, RDT offers insights into how firms navigate their dependencies on various factors influencing their credit risk exposure. According to RDT, organizations are reliant on external resources such as capital, technology, information, and expertise to function effectively (Pfeffer & Salancik, 1978). Firms must manage these dependencies to ensure their continued operations. This theory posits that resources are limited and unevenly distributed among organizations, leading to competition for access to essential resources and power differentials.

In the realm of credit risk management, firms must address dependencies on both internal and external factors. Internally, factors such as firm size, age, technology adoption, and workforce expertise play

crucial roles in mitigating credit risk. For instance, larger firms may have more resources to allocate towards risk management strategies, while technologically advanced firms may leverage automation tools for assessing and monitoring credit risks more effectively. Externally, industry-specific factors such as competition levels, regulatory complexity, and market dynamics influence credit risk exposure. RDT emphasizes the importance of industry networks and alliances in sharing best practices and resources to address industry-specific credit risk factors such as forex exposure, competitive pressures, and regulatory compliance. In addition, the credit risk exposure of businesses is also influenced by macroeconomic variables such as inflation, interest rates, and the growth of the gross domestic product. It is necessary for organizations to modify their methods for managing credit risk in order to diminish the effects of variations in the macroeconomic environment and to guarantee financial stability. RDT underscores the need for firms to establish robust networks with financial institutions, government agencies, and industry associations to access timely information and resources for managing macro-economic risks effectively.

Resource Dependency Theory provides a comprehensive framework for understanding the determinants of credit risk management. Resource Dependency Theory suggests that organizations are dependent on external resources to varying degrees (Pfeffer & Salancik, 2003). In the context of credit risk management, firms rely on various resources, both internal and external, to mitigate risks associated with their operations (Hillman, Withers, & Collins, 2009). For instance, firm-specific factors such as size and age influence the availability of financial resources and expertise, which in turn affect the firm's ability to manage credit risks effectively (Williamson, 2008). Similarly, industry-specific factors such as competition and regulatory environment can shape a firm's access to credit and its risk management practices (Scott, 2001). Additionally, macroeconomic factors like inflation rates and GDP growth rates impact the overall economic conditions, which subsequently influence credit risk management strategies adopted by firms (DiMaggio & Powell, 1983). This integration of Resource Dependency Theory into the analysis of credit risk management underscores the interplay between organizational dependencies and risk mitigation strategies, highlighting the importance of external and internal resources in managing credit risks effectively (Finkelstein & Hambrick, 1996).

Resource Dependency Theory extends our view to both industry-specific and macroeconomic factors. Pfeffer and Salancik (1978) argued that firms depend on external resources capital markets, regulatory environments, and supply-chain relationships to survive. In the automotive industry,

competition among lenders, the availability of wholesale finance, and evolving government regulations (e.g., on interest rate caps) all determine how companies structure their credit portfolios. Similarly, macroeconomic conditions such as inflation, exchange-rate volatility, and GDP growth affect the cost and availability of financing. Firms that cultivate strategic alliances with multiple banks or diversify funding sources can reduce dependency risks and adjust their credit products varying down-payment requirements or interest margins in response to market shifts. Through this lens, both industry-specific pressures and broader economic cycles inform the second and third research aims.

In this study, RDT is relevant because credit risk exposure in the automotive sector is shaped by both internal and external dependencies. Internally, firm-specific factors like size, age, and technological capabilities determine how well a firm can assess, monitor, and absorb credit-related shocks. Externally, automotive firms in Nairobi rely heavily on banks and financial institutions to access credit and depend on regulatory bodies for policy stability. Volatile macroeconomic conditions—such as inflation, exchange rates, and GDP fluctuations—further influence credit availability and repayment behavior, increasing risk exposure. RDT is particularly useful in explaining how firms respond to these external pressures. For example, firms that establish strong relationships with multiple lenders or industry associations are better positioned to secure financing and obtain early warning signals about market risks. Similarly, firms that adjust their credit terms in response to shifts in economic conditions demonstrate strategic flexibility, a core principle of RDT. Thus, RDT supports this study's exploration of firm-specific, industry-specific, and macroeconomic determinants of credit risk management. It also underpins the rationale for examining corporate governance as a mechanism to manage dependency risks by enhancing decision-making, oversight, and strategic adaptability in high-risk environments.

### **2.2.3 Agency Theory**

For the purpose of gaining an understanding of the interaction that exists between principals (shareholders) and agents (managers) inside firms, Jensen and Meckling (1976) developed a theory called Agency Theory. The theory investigates the difficulties that are brought about by the fact that these two parties have different interests, and it suggests methods to reduce the likelihood of conflicts and to guarantee that interests are aligned. Agency Theory is an important factor in determining the degree to which management is accountable, independent, and transparent within the framework of corporate governance standards.

Assumptions underlying Agency Theory include rational behavior by both principals and agents, self-interest maximization, and information asymmetry (Eisenhardt, 1989). The theory assumes that managers act in their self-interest, seeking to maximize their utility, which may not always align with shareholder interests. Additionally, information asymmetry between managers and shareholders creates opportunities for agency conflicts to arise. In order to solve these issues, processes of corporate governance are put into place through which the interests of principals and agents are brought into alignment. It has been suggested by Shleifer and Vishny (1997) that efficient governance measures, including as board monitoring, CEO remuneration, and shareholder activism, have the potential to reduce agency conflicts and increase organizational efficiency.

This theory is particularly relevant in understanding the dynamics within organizations, especially regarding managerial accountability and corporate governance. In the context of automotive companies, managers (agents) may act in their own self-interest, which could lead to decisions that are not aligned with the interests of the shareholders (principals), particularly in managing credit risk. In Kenya, corporate governance in the automotive sector is still evolving, with varying degrees of managerial accountability and transparency across firms. Strong governance structures that emphasize independent directors and clear performance monitoring mechanisms are crucial for reducing agency costs and improving CRM. Board independence is particularly important in ensuring objective oversight of credit decisions, while transparency in reporting helps mitigate information asymmetry and promotes investor confidence. Thus, corporate governance plays a moderating role

in aligning the interests of managers with those of shareholders, ultimately improving credit risk management practices.

## **2.3 Empirical Studies**

### **2.3.1 Firm Specific Factors and Credit Risk Management**

Svrtinov et al. (2019) conducted an investigation into the factors that determine credit risk in the banking sector in the Republic of North Macedonia. They discovered that there are substantial relationships between many bank-specific characteristics and credit risk. These variables include capital ratio, growth rate in loans, bank size, and bank liquidity. On the other hand, Khan et al. (2023) concentrated their attention on Pakistan's banking industry and highlighted the influence that bank-specific characteristics such as efficiency, return on assets (ROA), and bank size have on credit risk. This research was expanded to a wider sample of commercial banks by Raiter (2021), who discovered that bigger banks have a tendency to have lower credit risk, and private banks display lower credit risk in comparison to financial institutions that are controlled by the state. These studies have investigated credit risk determinants in banking sectors across different countries.

The methodologies employed in these studies vary, reflecting differences in data sources, sample compositions, and analytical techniques. Svrtinov et al. (2019) employed a balanced panel dataset consisting of seven commercial banks in North Macedonia from 2013 to 2018 and implemented methodologies for panel data analysis in order to investigate the association between bank-specific characteristics and credit risk. A similar study was conducted by Khan et al. (2023), who used financial ratio analysis to examine data from a selection of Islamic and conventional banks in Pakistan from 2007 to 2017. The purpose of this study was to determine the influence that bank-specific characteristics have on credit risk. Fixed Effect (FE) and Random Effect (RE) models were applied by Raiter (2021) in order to explore the factors that determine credit risk across a sample of 106 commercial banks that were either privately owned or controlled by the state.

Across the studies, several consistent findings emerge regarding credit risk determinants in banking sectors. Bank size appears to be a significant factor, with larger banks generally exhibiting lower credit risk (Raiter, 2021; Hamid & Siddiqui, 2021). Additionally, factors such as profitability, liquidity, and capital adequacy are identified as influential determinants of credit risk (Khan et al., 2023; Fakhrunnas, 2019). However, the direction of the relationship between certain variables and

credit risk may vary across studies and contexts. For example, while some studies find a positive correlation between bank size and credit risk (Svrtinov et al., 2019), others suggest the opposite (Raiter, 2021).

### **2.3.2 Industry Specific Determinants and Credit Risk Management**

Feng et al. (2021) and Bhatt et al. (2023) apply statistical analyses to investigate the link between credit risk management practices, environmental conditions, and bank performance. Both of these studies concentrate on the function that credit risk management plays as a mediator. For the purpose of analyzing the influence of competition on credit risk and credit policy responses, Martín-Oliver et al. (2020) and Al-Magharem et al. (2020) use empirical models and collection of data from credit markets. When evaluating the impact that competition has on credit risk in Vietnam's commercial banks, Hung and Quynh (2017) make use of quantitative indicators such as the Lerner indicator and the Herfindahl Hirschman Index (HHI). In order to investigate the impact that government rules have on the supply of credit in Kenyan commercial banks, Nyamwaro (2022) conducts an analysis of secondary data from central banks and uses a descriptive approach. For the purpose of analyzing the connection between political stability and credit risk in Ethiopian banks, Adem (2022) makes use of a dynamic panel estimator with two steps and incorporates data from governance and development indicators. These studies employ various conceptual frameworks and methodological approaches to investigate credit risk management determinants.

The outcomes of the research provide insights into the factors that determine credit risk management in a variety of different scenarios. While the research conducted by Bhatt et al. (2023) and Feng et al. (2021) focuses on internal elements like credit appraisal measures and market risk analysis, the research conducted by Martín-Oliver et al. (2020) and Al-Magharem et al. (2020) investigates the influence of external factors like competition on credit risk. Hung and Quynh (2017) draw attention to the intricate connection that exists between credit risk and competitiveness, leading them to hypothesize that this connection is not linear. The authors Nyamwaro (2022) and Adem (2022) investigate the impact of government rules and political stability on credit risk management, respectively. Their findings suggest that these factors have considerable implications on the supply of credit and the degrees of credit vulnerability.

A number of studies have been conducted to study the elements that determine credit risk management and the link between it and a variety of other aspects. Bhatt et al. (2023) conducted an investigation into commercial banks in Nepal and discovered that credit risk management acts as a mediator in the connection between environmental risk, credit appraisal metrics, market risk analysis, and bank performance. The researchers Feng et al. (2021) employed contingent claims analysis to investigate the asset-liability ratio and default distance of companies. Their findings revealed that leverage and economic growth had a pro-cyclical influence on one another. In their study conducted in 2020, Martín-Oliver and colleagues investigated the relationship between loan credit risk and competitiveness in the Spanish banking industry. They discovered that there is a negative association between credit risk and the amount of competition. An investigation on the effects of competition on banks and non-banks in consumer credit markets was carried out by Al-Magharem et al. (2020). The findings of this study highlighted discrepancies in the responses of credit policy to greater competition. Hung and Quynh (2017) conducted an investigation on the impact of competition on credit risk in Vietnam's commercial banks. They found that the relationship between the two variables was non-linear and exhibited a U-shaped curve. Nyamwaro (2022) explored the effect of government regulations on credit provision in Kenyan commercial banks, emphasizing the negative impact of liquidity regulation and the positive effect of firm size. Adem (2022) analyzed the relationship between political stability and credit risk in Ethiopian banks, revealing a negative correlation with political stability and a positive impact of political instability on credit risk.

### **2.3.3 Macro-economic factors and Credit Risk Management**

The analysis of credit risk in the United Kingdom banking industry is carried out by Sharma et al. (2024) via the use of predictive analytics and the variance-based multi-split decision tree algorithm. In their study conducted in 2023, Kanapickienė and colleagues use panel data analysis and regression approaches to assess the credit risk associated with consumer loans in nations located in Central and Eastern Europe. Farag et al. (2023) utilize the Dickey-Fuller test and generalized method of moments (GMM) for analyzing corporate and retail credit risks in Egypt. Tian (2022) examines commercial banks' non-performing loans using classification frameworks and industry distribution characteristics. Carvalho et al. (2022) employ panel data analysis to study credit default prediction in the Eurozone, while Alrfai (2022) and Gizem and Mehmet (2021) use panel data and ARDL analysis to investigate credit risk in Jordan and Turkey, respectively. Zawadzki (2023) examines

macroeconomic factors influencing credit risk using OLS regression, and Kituku and Oluoch (2021) utilize correlation and regression analyses to assess loan repayment rates in Kenya. Regarding the link between macroeconomic conditions and banking credit risk, the studies that were examined make use of a wide range of conceptual frameworks and empirical techniques.

Insights into the various implications of macroeconomic variables on banking credit risk across a variety of nations and locations are provided by the results of the research that were evaluated on this topic. Credit risk is shown to have a positive correlation with inflation, the unemployment rate, and national savings in the banking sector of the United Kingdom, according to Sharma et al. (2024). In their study conducted in 2023, Kanapickienė and colleagues have discovered that there exists a negative correlation between the non-performing loans (NPLs) of consumer loans and the overall macroeconomic situations in Central and Eastern European nations. Farag et al. (2023) find that inflation, GDP, and lending interest rates are negatively associated with corporate credit risk in Egypt. Tian (2022) analyzes the influence of economic growth, inflation, unemployment, and monetary policy on commercial banks' non-performing loans. Carvalho et al. (2022) highlight GDP growth as a key predictor of credit default in the Eurozone, while Alrfai (2022) identifies the impact of foreign direct investment (FDI), remittances, public debt, and tax on credit risk in Jordan. Gizem and Mehmet (2021) demonstrate a significant relationship between interest rates, total loan volume, and non-performing loans in Turkey. Zawadzki (2023) and Kituku and Oluoch (2021) explore the effects of various macroeconomic factors on credit risk and loan repayment rates in a global context.

#### **2.3.4 Moderating Effect of Corporate Governance on the Relationship Between Determinants and Credit Risk Management**

Credit risk in Tunisian banks was the primary subject of Moussa's (2019) research, which investigated the influence of board size, composition, and gender diversity. According to the findings of the research, there is a negative correlation between the size of the board and the quality of the credit, which suggests that a bigger board may result in an increased credit risk. On the other hand, Ali et al. (2021) found that larger boards of directors are associated with better credit risk management practices in Pakistani commercial banks, which runs counter to this finding. Given these conflicting results, it's obvious that further study is needed to determine which contextual factors impact the impact of board size on credit risk management. In contrast, not a single study examined how corporate governance moderates the relationship between determinants and credit risk management.

Rose (2019) conducted an investigation of the board structures of Danish banks and discovered that increases in the compensation of executive directors were related to greater levels of credit risk, whilst an increase in the number of executive directors was associated with lower levels of credit risk exposure. It is consistent with the hypothesis put forward by Moussa (2019) that the concentration of power within the board may lead to an increase in the risks faced by the bank. On the other hand, Michael (2023) discovered that the presence of non-executive board members had a favorable affect on the management of credit risk in Ghanaian banks. The fact that these conclusions are so different highlights the intricacy of board dynamics and the influence that they have on credit risk. On the other hand, the research did not analyze the impact that corporate governance has on the connection between determinants and credit risk management.

Sadaa and colleagues (2023) looked on the link between Iraqi financial institutions' non-performing loans (NPLs) and corporate governance practices. The study's results demonstrated a negative correlation between non-performing loans (NPLs) and non-executive directors, board financial expertise, and risk management committees. Bank credit risk is significantly and negatively affected by board size, board meeting frequency, and board independence (Hunjra et al., 2024). These discrepancies show how much more study is needed to grasp the complex interplay between various corporate governance tools and credit risk management. In addition, the research did not demonstrate that corporate governance moderates the connection between determinants and credit risk management throughout the course of the study.

While the reviewed studies investigate the link between corporate governance and credit risk, their methodologies differ. Moussa (2019) and Hunjra et al. (2024) employ panel data regression analysis, allowing them to study changes within and between banks over time. In contrast, Ali et al. (2021) utilize multilevel estimation to account for the nested structure of data with banks and board meetings within banks. Rose (2019) and Permatasari (2020) rely on quantitative analysis of governance variables, while Michael (2023) adopts a correlational descriptive design, potentially limiting causal inferences. Sadaa et al. (2023) employed panel estimation with a regression estimator, highlighting the diverse methodological approaches used to explore this complex relationship. These variations highlight the need for further research employing various methodologies to gain a comprehensive understanding of the multifaceted link between corporate governance and credit risk management.

The reviewed studies explore the impact of corporate governance on credit risk across diverse contexts. Moussa (2019) examines Tunisian banks during a specific period (2000-2014), while Ali et al. (2021) focus on Pakistani banks between 2012 and 2020. This highlights the importance of considering the temporal context as corporate governance practices and regulations might evolve over time. Furthermore, Rose (2019) analyzes Danish banks in the pre-crisis period, providing valuable insights into how governance structures might influence risk management during periods of economic turmoil. Conversely, Michael (2023) examines listed banks in Ghana from 2010 to 2021, focusing on a developing economy with distinct institutional and regulatory frameworks. This contextual variation underscores the need to explore how institutional environments and regulatory frameworks might moderate the relationship between corporate governance and credit risk. The studies also differ in terms of their sample size and data collection methods. Sadaa et al. (2023) utilize a sample of 42 Iraqi banks from 2017 to 2021, while Permatasari (2020) focuses on Indonesian banks and employs their self-assessed governance ratings. Hunjra et al. (2024) analyze a fixed effect model using data from an unspecified number of banks, highlighting the diverse methodological approaches used across studies. These variations emphasize the need for further research employing robust methodologies and considering the specific context of automotive firms in Nairobi City County to provide more generalizable insights.

The reviewed studies, while investigating the impact of corporate governance on credit risk, yield contrasting findings across diverse contexts. Board size emerges as a point of contention, with Moussa (2019) finding a negative association with credit quality in Tunisian banks, while Ali et al. (2021) reported a positive effect on credit risk management in Pakistan. Similarly, executive compensation shows divergent results, with Rose (2019) linking it to increased credit risk in Danish banks, while Ali et al. (2021) found a positive association with credit risk management in Pakistan. These discrepancies highlight the importance of considering context when examining the relationship between corporate governance and credit risk. Institutional frameworks, regulatory environments, and economic conditions might influence how specific governance practices impact credit risk. For instance, state ownership might have different implications for credit risk management in developing economies (Sadaa et al., 2023) compared to developed economies (Rose, 2019).

## 2.4 Research Gaps

**Table 2. 1: Research Gap**

<b>Author</b>	<b>Topic of Study</b>	<b>Key Findings</b>	<b>Knowledge Gap</b>
Svrtinov et al. (2019)	Credit risk determinants in Republic of North Macedonia banking sector	The findings revealed that, capital ratio, growth rate in loans, bank size and bank liquidity, have significant correlation with credit risk. Bank size has positive correlation with credit risk	The study was conducted outside Kenya in Banking Sector The study limited itself to listed banks hence contextual and geographical gaps
Raiter (2021)	Bank-specific factors that affect the credit risk in financial institutions	The results suggested that if bank size increase, the credit risk become minimized. Additionally, the credit risk is lower in private banks than in state-owned banks.	This was a comparative study focusing on private and state-owned commercial banks hence methodological gaps
Havidz and Obeng-Amponsah (2020)	Determinants of bank's credit risk from bank-specific perspective in Indonesia	Banks in this study maintain a prudent management in managing its credit risk thus further explain why bank-specific variable have higher significant compare to macroeconomic variable resulting to bank have more resistance to macroeconomics changes	The study was conducted outside Kenya The study focused on commercial banks hence there was contextual gaps There were conceptual gaps since the study failed to explain why bank-specific variable have higher significant compare to macroeconomic variable
Hamid and Siddiqui (2021)	Effect of firm specific factors on the default risk by using extended data set of all listed Pakistani non-financial firms	among commercial	The results also suggest that larger firms are less risky as compared to smaller firms.
Kharabsheh (2019)	Credit risk determinants in Jordanian banking sector		Larger and more profitable banks faced lower credit risk. However, no effect was found for bank liquidity The results reveal that market risk analysis has a significant effect on credit risk management.
Bhatt et al. (2023)	Determinants of credit risk management		

The study focused on listed non-financial

firms in Pakistan resulting to both contextual and banks in Nepal

geographical gaps  
The study focused on bank since as a measure of firm specific factors resulting to conceptual gaps

The study failed to indicated link between bank liquidity and credit risk management

The study focused on commercial banks  
Conceptually, the study limited itself to market analysis

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Martín-Oliver et al. (2020)	How loan credit risk depends on competition in the banking sector	The results show that credit risk decreases with the level of competition in the credit market, and they are consistent with the prediction from the moral hazard view on the determinants of credit risk.	The study was conducted among commercial banks in Spain resulting to both contextual and geographical gaps The study limited itself to competition resulting to conceptual gaps
Hung and Quynh (2017)	Influence of competition on credit risk in Vietnam commercial banks over the period 2006 – 2016	The main results indicate that competition positively impacts on the probability of loan non-payment.	The study was conducted among commercial banks in Vietnam resulting to both contextual and geographical gaps The study limited itself to competition resulting to both contextual and geographical gaps
Nyamwaro (2022)	Effect of government regulations on credit provision of commercial banks in Kenya.	The study findings indicated that liquidity regulation has a negative and significant effect on credit provision among commercial banks in Kenya	The study only focused on government regulations resulting to both contextual and geographical gaps Regulation was found to have a negative significant effect contradicting other empirical studies
Sharma et al. (2024)	Macroeconomic determinants' impact on the UK banking credit risk	Positive association between credit risk and inflation, the unemployment rate, and national savings	The study was conducted among banks in the UK resulting to both contextual and geographical gaps
Kanapickienė et al. (2023)	macroeconomic factors of consumer loan credit risk in Central and Eastern European countries' banking systems	The results revealed that the aggregate of general macroeconomic condition factors is negatively related to consumer loan NPLs	The study was conducted among banks in the Central and European countries resulting to both contextual and geographical gaps The study was conducted among several banks with different regulations
Farag et al. (2023)	Determinants of corporate credit risks in the banking sector of Egypt during 2013-2020	Inflation, gross domestic product (GDP), and lending interest rate were negatively associated with the corporate credit risk.	The study focused on corporate credit risk resulting to conceptual gaps The study was conducted among banks in Egypt resulting to both contextual and geographical gaps
Carvalho et al. (2022)	Macroeconomic determinants of credit risk:	The results obtained confirmed that macroeconomic information	The study was conducted among commercial banks in Eurozone resulting to both contextual and

strengthens the accuracy of geographical gaps

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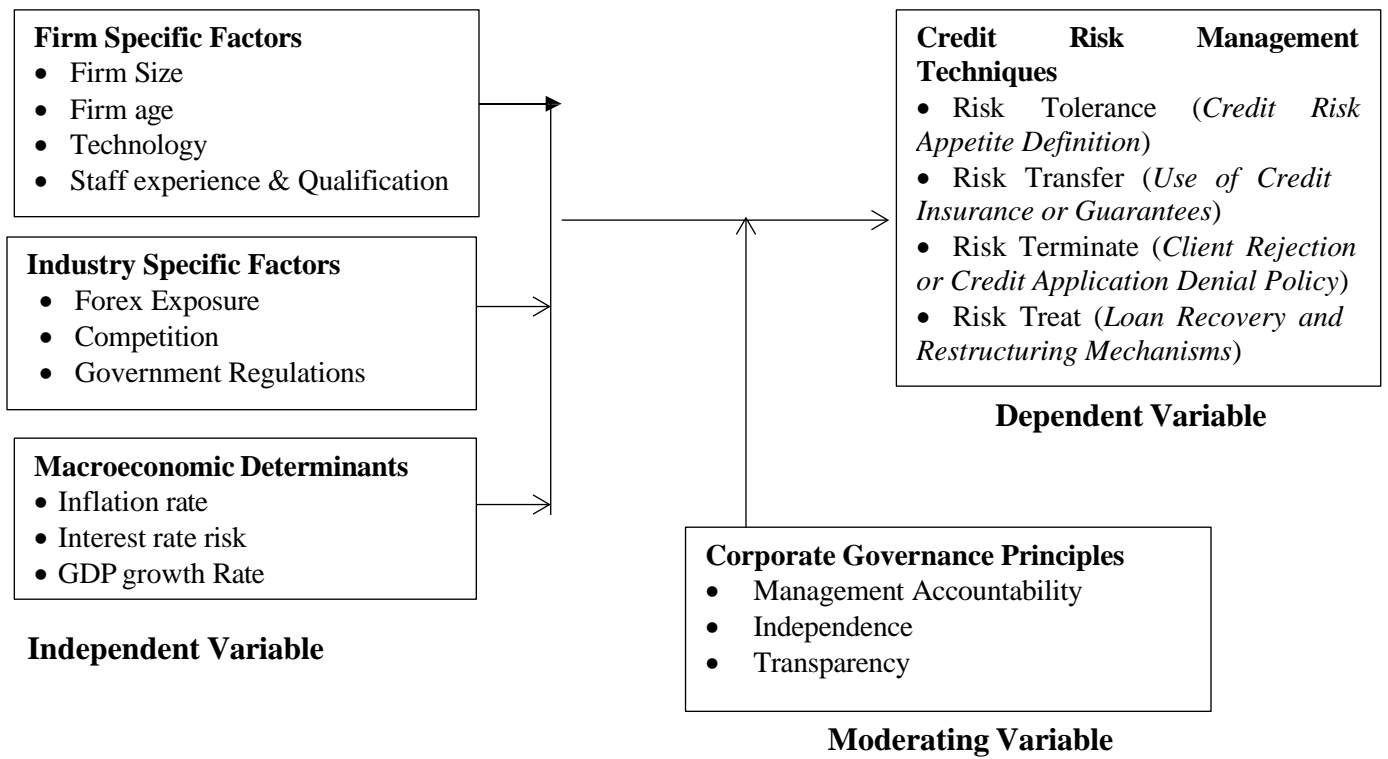
		Evidence from the Eurozone	models forecasting credit default of non-financial firms	The study focused on the accuracy of models forecasting credit default of non-financial firms which contradicts current study methodology
Kituku and Oluoch (2021)		Effect of macroeconomic variables on repayment of bank loans by retail borrowers in Kenya	Interest rates had a positive association with loan repayment rate by retail borrowers in Kenya.	The study was conducted among commercial banks focusing on retail borrowers leaving both conceptual and contextual gaps
Gizem Mehmet (2021)		Association between macroeconomic variables and NPLs is investigated for 2008:01-2017:12 period in Turkey	Moreover, there is an economical and statistically significant relationship between interest rate and total loan volume and NPLs in both long and short term	The study was conducted among commercial banks in Turkey resulting to both contextual and geographical gaps
Moussa (2019)		Impact of corporate governance variables of board size, board composition and board gender diversity on credit risk.	The results show that the higher the number of board members, the lower the quality of credit is and, consequently, the credit risk increases.	The study did not illustrate the moderating effect of corporate governance leaving both significant conceptual and empirical gaps
Ali et al. (2021)		Impact of corporate governance on credit risk management in Pakistan's commercial banks.	The results revealed that board size has positive effect on CRM. The results reported that board meetings have positive significant effect on the Credit Risk Management.	The study did not illustrate the moderating effect of corporate governance. The study was conducted among commercial banks in Pakistan
Sadaa et al. (2023)		Connection between corporate governance mechanisms and non-performing loans (NPLs)	The findings showed that non-executive directors, board financial experience, and risk management committee affected NPLs negatively. At the same time, the audit committee was an insignificant effect on NPLs.	The study did not illustrate the moderating effect of corporate governance leaving both significant conceptual and empirical gaps

Michael (2023)	Effect of corporate governance on credit risk management in listed banks in Ghana	larger board size was associated with improved credit risk management, benefiting from enhanced monitoring and diverse expertise	The study did not illustrate the moderating effect of corporate governance The study was conducted amongst commercial banks in Ghana
Hunjra et al. (2024)	Relationship between corporate governance, corporate social responsibility (CSR) and bank	Board size, board meetings and board independence significantly and negatively affect banks' credit risk. However, ownership concentration significantly increases bank credit risk.	The study did not illustrate the moderating effect of corporate governance leaving both significant conceptual and empirical gaps. The study was conducted among commercial banks

risk

## 2.5 Conceptual Framework

A conceptual framework is a set of broad ideas and principles from relevant fields of inquiry and used to structure a subsequent presentation. It is a research tool intended to assist or help a researcher to develop awareness and understanding of the situation under study and to communicate it (Salkin, Oner, Ustundag & Cevikcan, 2018). The independent variables will be firm specific factors, industry specific factors and macro-economic determinants. The indicators of Firm Specific Factors included Firm Size, Firm age, Technology, Staff experience & Qualification. The indicators Industry Specific Factors included Forex Exposure, Competition and Government Regulations, The indicators of Macroeconomic Determinants included Inflation rate, Interest rate risk and GDP growth Rate. The moderating variable was corporate governance principle with indicators such as. The dependent variable was credit risk management with indicators such as Risk Tolerance, Risk Transfer, Risk Terminate and Risk Treat.



**Figure 2. 1: Conceptual Framework**

**Source: Developed from the Reviewed Literature by Author (2024)**

## 2.6 Operationalization of variables

<b>Dependent Variable</b>	<b>Level of Measurement</b>	<b>of</b>	<b>Method of Analysis</b>	<b>of</b>	<b>Supporting Literature</b>
<b>Credit Risk Management</b> <ul style="list-style-type: none"> <li>•Risk Tolerance</li> <li>•Risk Transfer</li> <li>•Risk Terminate</li> <li>• Risk Treat</li> </ul>	Ordinal Scale 5-point Likert scale		Descriptive Inferential		Santo et al. (2020), Li et al (2020), Müller et al (2021).
<b>Independent variables</b>	<b>Level of Measurement</b>	<b>of</b>	<b>Method of Analysis</b>	<b>of</b>	<b>Supporting Literature</b>
<b>Firm Specific Factors</b> <ul style="list-style-type: none"> <li>• Firm Size</li> <li>• Firm age</li> <li>• Technology</li> <li>• Staff experience &amp; Qualification</li> </ul>	Ordinal Scale 5-point Likert scale		Descriptive Inferential		Khan et al. (2023), Raiter (2021), Svrtinov et al. (2019), Hamid & Siddiqui (2021)
<b>Industry Specific Factors</b> <ul style="list-style-type: none"> <li>• Forex Exposure</li> <li>• Competition</li> <li>• Government Regulations</li> </ul>	Ordinal Scale 5-point Likert scale		Descriptive Inferential		Nyamwaro (2022), Adem (2022), Al-Magharem et al. (2020), Al-Magharem et al. (2020)
<b>Macroeconomic Determinants</b> <ul style="list-style-type: none"> <li>• Inflation rate</li> <li>• Interest rate risk</li> <li>• GDP growth Rate</li> </ul>	Ordinal Scale 5-point Likert scale		Descriptive Inferential		Alrfai (2022), Gizem and Mehmet (2021), . Kanapickienė et al. (2023), Tian (2022)
<b>Moderating Variable</b>	<b>Level of Measurement</b>	<b>of</b>	<b>Method of Analysis</b>	<b>of</b>	<b>Supporting Literature</b>
<b>Corporate Governance Principles</b> <ul style="list-style-type: none"> <li>• Management Accountability</li> <li>• Independence</li> <li>• Transparency</li> </ul>	Ordinal Scale 5-point Likert scale		Descriptive Inferential		Moussa(2019), Sadaa et al. (2023), Hunjra et al. (2024), Sadaa et al. (2023)

## **2.7 Chapter Summary**

This chapter reviewed previous studies examining the determinants of credit risk management practices among automotive firms. The theoretical foundations of the study were first discussed, anchored on Information Asymmetry Theory, Resource Dependency Theory, and Agency Theory, which guided the research framework. The chapter also reviewed literature on the effects of firm-specific, industry-specific, and macroeconomic factors on credit risk management, and highlighted the moderating role of corporate governance. Gaps in existing research were identified through a critical literature survey. These gaps informed the development of the study's conceptual framework and the operationalization of the study variables.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

The purpose of this chapter is to detail the methodological approach employed to investigate the determinants of credit risk management and the moderating role of corporate governance among automotive firms in Nairobi City County. It begins by outlining the overall research design, which justifies the choice of a quantitative, correlational survey. This is followed by a description of the study area and target population, and the sampling strategy used to select a representative subset of firms and respondents. Next, the chapter presents the data collection instruments including structured questionnaires and document-review checklists along with procedures for ensuring their validity and reliability. The methods for data collection, coding, and statistical analysis, including the multiple regression techniques and the attendant assumptions testing, are then explained. Finally, the chapter addresses the ethical considerations that guided the study, ensuring the protection of participants and the integrity of the research process.

### **3.2 Research Philosophy**

Research philosophy is concerned with the process of knowledge creation and the characteristics of that knowledge (Saunders, Lewis, & Thornhill, 2012). There are two primary paradigms that are used in the field of research: positivism and social constructivism. According to Bryman and Bell (2015), positivism presents the idea that the universe and the phenomena that it contains are objective and independent of the researcher. On the other hand, social constructivism proposes that the researcher's perceptions are the primary factor in determining how they see the world. Positivism stresses quantitative facts, regarded more credible and scientific than qualitative methods (Saunders, Lewis & Thornhill, 2012). The positivist methodology was appropriate for this research because of the quantitative character of the data. The investigation of the factors that determine credit risk management in Nairobi City County automotive companies was aligned with this initiative.

### **3.3 Research Design**

A quantitative descriptive correlation research approach was used for the purpose of this study, which evaluated the factors that determine credit risk management in Nairobi City County. An example of a research approach that was used to investigate the connection between two or more variables

without attempting to manipulate those variables is a descriptive correlation design. This design aimed to describe the characteristics of variables and determine whether they are related or associated with each other in some way (Babbie, 2016). In essence, it sought to explore the extent to which changes in one variable correspond to changes in another variable, providing insights into patterns of behavior or phenomena within a population. This approach, focusing on describing population characteristics rather than exploring causality, enables efficient data collection using questionnaires (Saunders, Lewis & Thornhill, 2012). Descriptive research facilitated simultaneous analysis of multiple variables, allowing for comprehensive examination of various conditions (Eriksson & Huttunen, 2011). Through this method, the study aimed to generate frequency distributions, percentages, and tables for data analysis.

### **3.4 Target Population**

A population, as described by Mukherjee, Sinha, and Chattopadhyay (2019), encompasses all entities or individuals that exhibit a particular observable characteristic. This definition aligns with the perspective of Crespo-Herrera, Crossa, and Singh (2021), who view a population as encompassing all elements within a specific domain or "universe." For this study, the population consisted of 51 registered motor vehicle dealers and assemblers in Kenya, as indicated in Appendix I (Kenya Motor Industry Association, 2024). This selection ensured representation from key stakeholders within the automotive industry, providing valuable insights into the determinants of credit risk management in this sector. The unit of analysis was motor vehicle dealers and assemblers while the unit of inquiry was finance managers.

### **3.5 Sampling Design**

According to Cooper and Schindler (2014), a sample design is a crucial blueprint that is developed prior to the collection of data. This blueprint outlines the approach for choosing or specifying how a sample is obtained from a certain population. This design incorporated a number of essential components, such as the sample frame, which provides an outline of the list or source from which the sample was drawn; the sampling technique that was utilized to guarantee representativeness and minimize bias; and the determination of the sample size that was required to accomplish the objectives of the study while preserving statistical rigor and reliability. Each component of the sample design is meticulously crafted to align with the research aims, ensuring that the sample accurately

reflects the population under investigation and facilitates the generation of meaningful insights and conclusions.

### **3.5.1 Sample Frame**

The sample frame is defined as the set of people chosen from the target population using the selection process indicated earlier in the study, as stated by Martínez-Mesa et al. (2016). For the purpose of this investigation, the sample frame comprised of all of the components that were included in the population. Every single one of Kenya's fifty-one licensed automobile dealers and assemblers were included in the sample frame.

### **3.5.2 Sample Size and Sampling Procedures**

The survey included all 51 registered motor vehicle dealers and assemblers in Kenya, given the population size is restricted. This methodology was consistent with the findings of Zikmund et al. (2013), who propose that when working with a limited sample size, it is pragmatic to include all relevant components in the research. According to Siegel (2013), a sample size may be defined as a subset that is chosen from a larger group in order to effectively and properly reflect the full population. Sampling, as explicated by Siegel, encompasses the procedure of ascertaining a suitable sample size and then choosing participants in accordance with this determination. According to Cooper and Schindler (2014), it is said that a sample size over 50 is deemed adequate for the purposes of academic research. The study included all 51 officially registered motor vehicle dealers and assemblers in Kenya, with finance managers being the unit of inquiry.

## **3.6 Data Collection Instrument**

The study employed primary data collection through a structured questionnaire. The questionnaire was administered to the finance managers who formed unit of inquiry. As described by Aithal et al. (2020), a questionnaire serves as a measurement tool that prompts individuals to respond to a series of inquiries, typically arranged in a specific order. Given the assumption of respondents' literacy and ability to provide informed answers, the questionnaire method was deemed appropriate for this research. The questionnaire was divided into four sections: Part 1 solicited general information from participants, Part 2 covered the four independent variables, Part 3 focused on the moderating variable corporate governance, and Part 4 gathered data on credit risk management. Utilizing a five-point

Likert-type scale, responses ranged from 1 (Strongly Disagree) to 5 (Strongly Agree), allowing for nuanced responses: 5 - Strongly agree, 4 - Agree, 3 - Undecided, 2 - Disagree, and 1 - Strongly disagree.

### **3.7 Data Collection Procedure**

For data collection, a self-administered structured questionnaire was utilized, ensuring participants understand the research's purpose and the confidentiality of their responses. The study period was between April and May 2024. Access to identified firms was facilitated by an introductory letter obtained from Strathmore University Business School, primarily directed to the Chief Executive Officer. The questionnaire was distributed to either of the three senior personnel; finance managers, operation managers and chief executive officers by a team of five research assistants. They also collected completed questionnaires using a drop-and-pick technique to maintain respondent anonymity and ensure efficient data retrieval. This method was chosen for its effectiveness in gathering comprehensive insights while respecting participant privacy and confidentiality.

### **3.8 Research Quality**

A pilot study serves as an initial investigation to assess research methodologies, tools for data collection, sample recruitment strategies, and other aspects of the research process before conducting a larger study. It aids in validating the questionnaire used in the study (Baker, 1994). According to Hazzi and Maldaon (2015), a pilot study involving approximately 10% of the intended sample size, equivalent to five respondents in this case, is deemed sufficient. This preliminary study occurred two weeks prior to the main research, involving randomly selected participants. It enabled the researcher to identify any ambiguous or potentially misinterpreted questions, allowing for their refinement before the actual data collection process commences.

#### **3.8.1 Validity Test**

Validity is a critical aspect of research, ensuring that the findings accurately reflect the phenomenon being studied. Mugenda et al. (2012) define validity as the degree to which research instruments measure what they are intended to measure and how effectively they do so within the specific context of the study. In essence, validity speaks to the correctness and appropriateness of drawing conclusions from the collected data. There are various types of validity, each addressing different aspects of

measurement accuracy. Content validity, for instance, focuses on whether the items in a research instrument adequately represent the content domain being studied (Vakili & Jahangiri, 2018). It assesses the relevance and comprehensiveness of the instrument's items in capturing the intended construct.

To ensure content validity, meticulous attention was paid to the design of the research instrument. Each question was carefully crafted to align with the objectives of the study and accurately measure the targeted variables. Additionally, expert judgment was sought from supervisors and faculty members at Strathmore University Business School. Their input helped assess whether the instrument comprehensively covers the intended content and whether the items are clear and unambiguous. Through expert evaluation and constructive feedback, any potential issues with the research instrument, such as unclear or misleading questions, were identified and addressed. This iterative process of refinement enhanced the content validity of the instrument, ensuring that it effectively captures the phenomenon under investigation. By prioritizing content validity, the researcher had confidence in the accuracy and relevance of their findings, thereby strengthening the overall quality of the research endeavor.

### **3.8.2 Reliability Test**

Reliability, in research, pertains to the consistency and stability of measurement over repeated administrations or under varied conditions (Noble, Scheinost, & Constable, 2021). A reliable instrument yields consistent results when applied repeatedly, indicating minimal variability and measurement error. The study made use of Cronbach's alpha coefficient, which is a frequently used measure of internal consistency (Bonett & Wright, 2015). This allowed for the objective evaluation of the dependability of the research tools. Through the use of this statistical technique, the degree to which the items included inside a scale or questionnaire are correlated with one another is evaluated, which provides an indication of the overall instrument's reliability. It is usually accepted that a Cronbach's alpha score of 0.70 or above is appropriate, since this indicates that there is sufficient internal consistency across the items. Cronbach's alpha was used in the research project to guarantee that the research instruments consistently measured the desired constructs. This resulted in an increase in the reliability of the data obtained from the investigation. With this technique, the research methodology was strengthened in terms of its rigor and robustness, which in turned strengthen the credibility of the findings of the study.

For reliability tests Cronbach alpha was applied for each variable which had a range 0.835 to 0.961 thus for this, Cronbach alpha statistic with a value of 0.7 or more was considered reliable. The test items were retained and used in this study hence considered reliable as shown in the Table 3.1.

**Table 3. 1: Reliability.**

<b>Variable</b>	<b>N</b>	<b>Cronbach alpha</b>
Firm Specific Factors	8	0.961
Industry Specific Factors	6	0.905
Macro-economic Determinants	6	0.954
Corporate Governance	6	0.947
Credit Risk Management	8	0.835

### **3.9 Data Analysis and Presentation**

Data analysis is a systematic process crucial for extracting meaningful insights, making informed decisions, and drawing conclusions from collected data. In this research, the obtained data underwent several steps to ensure accuracy and relevance. Initially, the data was organized, tabulated, and categorized for easier manipulation and interpretation. A thorough examination of the raw data followed, aiming to detect and rectify any errors or discrepancies. This involved scrutinizing filled-out questionnaires meticulously. Subsequently, numerical codes were assigned to responses for efficient categorization and analysis. Statistical analysis was performed using SPSS 26, incorporating both descriptive and inferential statistics.

Descriptive statistics summarized and present the data's characteristics, while inferential statistics explored relationships and make predictions based on sample data. The findings were presented through tables, models, and charts, aligned with the research objectives. Hierarchical regression analysis was used to examine the moderating impact. This statistical approach enables us to examine how the connection between two variables changes when a third variable is included. It is possible to evaluate the moderating variable's impact on the connection between the dependent and independent variables using this method.

Although the original data were collected on a Likert scale (ordinal measurement), composite scores for each variable were computed by taking the mean of multiple Likert-scale items. This aggregation produces approximately continuous data, consistent with practices in behavioral and management research. Given the number of items per construct and the reliability of the scales, the mean scores were treated as continuous variables. Therefore, Ordinary Least Squares (OLS) regression was deemed appropriate for analyzing the relationships between the independent variables, the moderating variable, and the dependent variable (credit risk management techniques).

The following is unmoderated regression model:

$$\text{CRM} = \beta_0 + \beta_1\text{FSD} + \beta_2\text{ISD} + \beta_3\text{MED} + \beta_4\text{FS} + \beta_5\text{FA} + e$$

The following is moderated regression model:

$$\text{CRM} = \beta_0 + \beta_1\text{FSD} + \beta_2\text{ISD} + \beta_3\text{MED} + \beta_4\text{FS} + \beta_5\text{FA} + \beta_6\text{M} + \beta_7\text{FSD}*\text{M} + \beta_8\text{ISD}*\text{M} + \beta_9\text{MED}*\text{M} + e$$

Where:

- CRM = credit risk management
- FSD = firm specific determinants
- ISD = industry specific determinants
- MED = macroeconomic determinants
- FA = firm age
- FS = firm size
- M = moderating variable

### **3.10 Ethical issues**

The ethical framework guiding this research was founded on principles of respect, confidentiality, and informed consent. Before engaging with respondents, explicit consent was obtained, outlining their rights to voluntary participation and withdrawal without penalty. This process ensured respect for individual autonomy and freedom of choice. To protect confidentiality, personal identifying information such as names, contact details, and other sensitive data was excluded from questionnaires. This practice shielded participants' identities, fostering a sense of trust and security in sharing their perspectives.

Moreover, ethical approval was sought from institutional review bodies, namely the Strathmore University Ethics Review Committee and the NACOSTI. This demonstrated commitment to

upholding ethical standards and ensures adherence to regulatory requirements. Participants were given the assurance that their comments would be utilized only for academic reasons, which promoted honesty and integrity in the conduct of research with participants. When taken as a whole, these ethical protections protected the rights and dignity of participants while also preserving the integrity of the study process.

### **3.9 Summary of the Chapter**

A detailed overview of the research methodology is presented in this chapter. It covers topics such as the philosophical approach, study design, characteristics of the target population, sampling methods, data collecting tools, selected data processing techniques, and concerns for guaranteeing the quality of the data provided. In addition to providing a more in-depth knowledge of the research method, the chapter also ensures the reliability and validity of the results by providing a detailed account of these essential components, which provide insight into the systematic approach that was used in the study. Each component is carefully considered and justified, contributing to the robustness of the research methodology and enhancing confidence in the study outcomes.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

This chapter presents and discusses the findings of the research with respect to the objectives of the study. The findings of both descriptive and inferential analysis are presented.

#### 4.2 Response Rate

A total of 51 financial managers were surveyed for the research. A total of 51 surveys were sent out; 80.4% of those individuals filled out and returned their surveys. The response rate was deemed excellent and appropriate for drawing conclusions about the study population. This is based on the following criteria: a response rate of 50% is deemed adequate for analysis and reporting purposes, a rate of 60% is deemed good, and a rate of 70% and above is deemed excellent (Mugenda & Mugenda, 2009).

**Table 4. 1: Response Rate**

Category	Frequency	Percent
Response	41	80.4
Non-Response	10	29.6
Total	51	100.00

**Source: Primary Data (2024)**

#### 4.3 Demographic Information of Respondents

This section presents the demographic profile information collected from respondents in this study, including their age, Gender, experience and education level. This demographic information provide context for the data. Table 4.2 presents a summary of respondents' demographic information.

**Table 4. 2: Demographic Information of Respondents**

Characteristics	Indicator	Frequency	Percentage
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<b>Gender</b>	Male	30	73.2
	Female	11	26.8
<b>Age</b>	Below 25 years	4	9.8
	25-30 years	13	31.7
	31-40 years	18	43.9
	41-45 years	6	14.6
	Over 45 years	4	9.8
<b>Education Level</b>	Certificate	13	31.7
	Diploma	15	36.6
	Degree	9	22.0
	Post Graduate	4	9.8
	Others	0	0
<b>Working Experience</b>	Less than 1 year	6	14.6
	1-5 years	26	63.4
	Over 5 years	9	22.0

With a predominant male representation (73.2%), the study reflects a workforce that may be influenced by male-dominated leadership and decision-making processes in the automotive sector. This gender imbalance may also suggest a potential focus on understanding the specific challenges and needs of male employees in the context of credit risk management. The relatively smaller proportion of females (26.8%) highlights an area for potential gender diversity improvement in the sector, which could impact how credit risk is managed, particularly if female perspectives are underrepresented in decision-making roles.

The age distribution reveals that the majority of respondents (43.9%) are between 31 and 40 years old, indicating a relatively experienced workforce in terms of tenure and understanding of industry practices. This age group may be crucial in understanding the practical application of credit risk management as they likely possess a combination of experience and adaptability to industry changes. Additionally, a significant portion (31.7%) is in the 25-30 years age range, which could suggest a younger, dynamic workforce that may bring fresh perspectives to credit risk strategies. The smaller percentage of respondents in older age groups (14.6% aged 41-45 and 9.8% over 45 years) could indicate that senior positions are either not well represented in the sample or that the automotive industry is skewed toward younger professionals in risk management roles.

The educational background of the respondents highlights a strong foundation in technical and practical knowledge. With 36.6% holding a diploma and 31.7% having a certificate, the workforce

seems to be highly skilled but may have more hands-on or specialized training rather than advanced theoretical knowledge. The 22.0% with degrees and 9.8% with post-graduate education show that there is also a portion of the workforce with higher academic qualifications, which could lead to more strategic or theoretically-driven insights into credit risk management. The mix of educational qualifications suggests that both practical experience and academic knowledge are being applied to the study of credit risk practices.

The distribution of work experience provides further depth to understanding the respondents' expertise in credit risk management. A significant number of respondents (63.4%) have between 1 and 5 years of experience, indicating that they may still be in the phase of building their skills and understanding of advanced credit risk practices. However, their relatively recent experience could mean they are more open to new technologies or approaches in managing credit risk. A smaller proportion of respondents (22.0%) have more than five years of experience, which can provide valuable insights into how credit risk management strategies have evolved over time and the effectiveness of these practices in the automotive sector. The 14.6% of respondents with less than one year of experience may offer a fresh perspective on emerging trends or challenges, although their limited experience could restrict their ability to provide in-depth assessments of long-term practices.

#### **4.4 Descriptive Statistics**

This section presents a descriptive analysis of the individual statements in the questionnaire relating to the variables being studied.

##### **4.4.1 Firm Specific Factors**

The first objective of this study was to assess the effect of firm specific determinants on credit risk management of automotive firms in Nairobi City County. The firm specific factors that were examined in this study included Firm Size, Firm age, Technology and Staff experience & Qualification. These determinants were measured using a five-point Likert scale that ranges from one to five. Table 4.3 shows the descriptive statistics for the responses for firm-level determinants.

**Table 4. 3: Firm Specific Factors**

	<b>Firm Specific Factors</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>
1	The size and financial resources of an automotive firm significantly influence the implementation of effective credit risk assessment and monitoring techniques.	41	4.00	1.204
2	A larger automotive firm is better positioned to invest in advanced credit scoring models that improve credit risk analysis and loan approval decisions.	41	3.44	1.119
3	An established automotive firm with a history of managing credit risk is more capable of offering competitive financing terms while minimizing default risk.	41	3.73	1.205
4	The operational experience of an automotive firm enhances the design and execution of credit risk mitigation strategies	41	3.93	1.104
5	The use of technology, such as automated credit scoring tools and data analytics, enhances the effectiveness of credit risk management practices	41	3.71	1.289
6	Automated decision engines and real-time data analysis improve the speed and accuracy of credit decisions	41	3.73	1.225
7	The experience and qualifications of staff involved in credit risk management significantly impact the effectiveness of risk identification and mitigation techniques	41	3.78	1.314
8	Well-trained staff with knowledge in credit analysis, risk assessment, and regulatory compliance contribute to the successful implementation of credit risk control measures	41	3.80	1.145

Respondents agreed that the size and financial resources of Kenyan automobile firms significantly impact their ability to implement robust credit risk management practices, with a mean score of 4.00 and a standard deviation of 1.204. This indicates a high level of consensus on the importance of firm size in effective credit risk management. For the statement regarding the greater capacity of larger, established firms to invest in advanced credit scoring models and risk analysis tools, respondents showed moderate agreement with a mean score of 3.44 and a standard deviation of 1.119. This suggests that while larger firms may have the resources, there is less certainty about their ability to fully utilize such tools in credit risk management.

Respondents agreed that firms with a history of sound lending practices are more confident in offering competitive financing terms while managing risk effectively, with a mean score of 3.73 and a standard deviation of 1.205. This highlights the role of experience and past performance in influencing current credit risk management practices. The statement that operational experience and track record influence a firm's approach to credit risk management had a mean score of 3.93 with a standard

deviation of 1.104. This indicates strong agreement, suggesting that experience in the industry positively impacts the effectiveness of credit risk management strategies.

Respondents agreed that the use of technology plays a crucial role in the effectiveness of credit risk management practices, with a mean score of 3.71 and a standard deviation of 1.289. This points to the importance of technological tools in making credit decisions and managing risk efficiently. The response regarding the use of advanced credit scoring models, automated decision engines, and data analytics for faster and more informed credit decisions showed moderate agreement, with a mean score of 3.73 and a standard deviation of 1.225. This suggests that firms are aware of the benefits of these tools but may face challenges in fully implementing them.

The experience and qualifications of staff involved in credit risk management were seen as important, with a mean score of 3.78 and a standard deviation of 1.314. This demonstrates that respondents believe staff competence plays a significant role in the effectiveness of credit risk management. The statement about well-trained staff equipped with knowledge of credit analysis, risk assessment, and Kenyan regulations had a mean score of 3.80 with a standard deviation of 1.145. This suggests that having knowledgeable and skilled staff enhances a firm's ability to make accurate credit decisions and manage risks effectively.

#### 4.4.2 Industry Specific Factors

The second objective of this study was to examine the effect of industry specific determinants on credit risk management of automotive firms in Nairobi City County. The industry specific determinants that were examined in this study were Forex Exposure, Competition and Government Regulations. These determinants were measured using a five-point Likert scale that ranges from one to five. Table 4.4 shows the descriptive statistics for the responses for industry Specific factors.

**Table 4. 4: Industry Specific Factors**

	<b>Industry Specific Factors</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>
1	We assess the foreign exchange risk associated with borrowers operating in volatile currency environments	41	3.66	1.277
2	We offer hedging products or strategies to mitigate the risk of currency fluctuations for our borrowers.	41	3.63	1.280

3	We consider the competitive landscape of a borrower's industry and how it might impact their financial performance and repayment ability	41	3.61	1.115
4	We analyse industry trends and the threat of new entrants when assessing the creditworthiness of borrowers within a particular sector.	41	3.54	1.051
5	We consider the potential impact of government intervention or policy shifts on the creditworthiness of borrowers within regulated industries.	41	3.88	1.166
6	We monitor regulatory changes relevant to specific industries and how they might affect a borrower's operating environment and credit risk profile	41	3.80	1.249

The statement, "We assess the foreign exchange risk associated with borrowers operating in volatile currency environments," had a mean score of 3.66 and a standard deviation of 1.277. This indicates moderate agreement among respondents, suggesting that firms generally consider foreign exchange risk, but there is some variability in how strongly this is perceived as important for credit risk management. The question regarding offering hedging products or strategies to mitigate the risk of currency fluctuations for borrowers had a mean score of 3.63 with a standard deviation of 1.280. The results show a similar moderate level of agreement, indicating that while some firms provide hedging options to manage currency risk, this is not universally applied across the industry.

Regarding the consideration of the competitive landscape of a borrower's industry and its impact on their financial performance and repayment ability, the mean score was 3.61 with a standard deviation of 1.115. Respondents generally agreed on the importance of competition when assessing creditworthiness, with some variation in how strongly this factor is integrated into credit risk management practices. The statement, "We analyze industry trends and the threat of new entrants when assessing the creditworthiness of borrowers within a particular sector," had a mean score of 3.54 and a standard deviation of 1.051. This suggests moderate agreement, indicating that firms do consider market trends and new competitors, though it might not always be a primary focus in credit risk assessments.

For the factor related to considering the potential impact of government intervention or policy shifts on the creditworthiness of borrowers within regulated industries, the mean score was 3.88 with a standard deviation of 1.166. This shows stronger agreement, indicating that firms place significant importance on government policies and their potential influence on borrower stability. The statement about monitoring regulatory changes relevant to specific industries and their potential impact on a

borrower’s operating environment and credit risk profile had a mean score of 3.80 and a standard deviation of 1.249. Respondents largely agreed with the importance of staying updated on regulatory changes, though the responses showed some variability.

#### 4.4.3 Macro-economic Determinants

The third objective of this study was to assess the effect of macroeconomic determinants on credit risk management of automotive firms in Nairobi City County. The macroenvironment level determinants that were examined in this study were Inflation rate, Interest rate risk and GDP growth Rate. These determinants were measured using a five-point Likert scale that ranges from one to five. Table 4.5 shows the descriptive statistics for the responses for macro-economic determinants.

**Table 4. 5: Macro-economic Determinants**

	<b>Macro-economic Determinants</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>
1	Our credit risk assessments consider potential changes in inflation and how they might affect borrower repayment capacity.	41	3.49	1.287
2	We adjust our credit scoring models or underwriting criteria to account for rising inflation and its impact on borrower debt burden.	41	3.88	1.327
3	Our organization considers the potential impact of interest rate fluctuations on borrowers' ability to service their debts.	41	3.51	1.247
4	We actively manage our credit portfolio's interest rate sensitivity to mitigate risk during periods of rising or falling interest rates.	41	3.54	1.267
5	We monitor changes in GDP growth and their potential effect on overall economic activity and credit delinquencies.	41	3.63	1.090
6	We incorporate economic growth forecasts into our credit risk models to assess the broader economic environment for borrowers.	41	3.63	1.260

The statement, "Our credit risk assessments consider potential changes in inflation and how they might affect borrower repayment capacity," had a mean score of 3.49 and a standard deviation of 1.287. This indicates moderate agreement among respondents, suggesting that while inflation is considered in credit risk assessments, its impact on borrower repayment ability is not always a primary focus. For the statement, "We adjust our credit scoring models or underwriting criteria to account for rising inflation and its impact on borrower debt burden," the mean score was 3.88 with a standard deviation of 1.327. This shows stronger agreement, indicating that firms actively adjust their

credit scoring models to account for inflationary pressures, reflecting an understanding of its potential impact on borrowers' ability to repay loans.

Regarding the impact of interest rate fluctuations, the statement, "Our organization considers the potential impact of interest rate fluctuations on borrowers' ability to service their debts," had a mean score of 3.51 with a standard deviation of 1.247. The results suggest moderate agreement, indicating that firms are aware of interest rate risks but may not always explicitly incorporate them into their credit risk assessment processes. The statement, "We actively manage our credit portfolio's interest rate sensitivity to mitigate risk during periods of rising or falling interest rates," had a mean score of 3.54 and a standard deviation of 1.267. This reflects moderate agreement and indicates that while firms are managing interest rate sensitivity, the level of active management may vary across different firms.

The statement, "We monitor changes in GDP growth and their potential effect on overall economic activity and credit delinquencies," had a mean score of 3.63 with a standard deviation of 1.090. The results indicate moderate agreement, suggesting that firms generally track macroeconomic conditions, such as GDP growth, and consider how these may influence credit risk and delinquencies. The statement, "We incorporate economic growth forecasts into our credit risk models to assess the broader economic environment for borrowers," had a mean score of 3.63 with a standard deviation of 1.260. This shows moderate agreement, indicating that firms use economic growth forecasts as part of their credit risk models, but there is some variability in how systematically this is done.

#### 4.4.4 Corporate Governance

The fourth objective of this study was to investigate the moderating the effect of corporate governance on the relationship between determinants and credit risk management of automotive firms in Nairobi City County. The corporate governance that was examined in this study were management Accountability, Independence and Transparency. They were measured using a five-point Likert scale that ranges from one to five. Table 4.6 shows the descriptive statistics for the responses for corporate governance.

**Table 4. 6: Corporate Governance**

Corporate Governance	N	Mean	Std Dev
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1	Senior management is held accountable for setting and maintaining effective credit risk management policies.	41	3.51	0.978
2	Management regularly reviews and updates credit risk strategies based on market trends and internal performance	41	3.63	1.019
3	The credit risk management team has sufficient autonomy to make independent assessments of loan applications and credit risks	41	3.71	1.055
4	Credit risk decisions are made based on objective criteria and risk analysis, free from undue influence from other departments.	41	3.90	1.020
5	Credit risk policies and procedures are clearly documented and communicated throughout the organization	41	3.85	1.014
6	Employees have access to comprehensive information about the organization's credit risk management framework.	41	3.90	0.995

The statement, "Senior management is held accountable for setting and maintaining effective credit risk management policies," had a mean score of 3.51 and a standard deviation of 0.978. This indicates moderate agreement, suggesting that while senior management is generally perceived as accountable for credit risk management policies, there is room for improvement in ensuring full accountability across all firms. Regarding the statement, "Management regularly reviews and updates credit risk strategies based on market trends and internal performance," the mean score was 3.63 with a standard deviation of 1.019. This shows moderate agreement, reflecting that management is somewhat proactive in adapting credit risk strategies to market conditions, though the frequency and depth of these reviews may vary.

The statement, "The credit risk management team has sufficient autonomy to make independent assessments of loan applications and credit risks," had a mean score of 3.71 and a standard deviation of 1.055. This indicates a stronger agreement, suggesting that the credit risk management teams generally have the necessary independence to make decisions based on their expertise, without undue influence from other departments. The statement, "Credit risk decisions are made based on objective criteria and risk analysis, free from undue influence from other departments," had a mean score of 3.90 with a standard deviation of 1.020. This indicates a higher level of agreement, reflecting that most firms ensure that credit risk decisions are based on objective assessments and analysis, contributing to the credibility of the decision-making process.

The statement, "Credit risk policies and procedures are clearly documented and communicated throughout the organization," had a mean score of 3.85 with a standard deviation of 1.014. This suggests a high level of agreement, indicating that firms generally have clear documentation and communication of credit risk policies, ensuring that employees understand the procedures to follow.

The statement, "Employees have access to comprehensive information about the organization's credit risk management framework," had a mean score of 3.90 with a standard deviation of 0.995. This reflects strong agreement, showing that firms provide employees with the necessary information regarding credit risk management, fostering transparency and enabling effective implementation of policies.

#### 4.4.5 Credit Risk Management

The dependent variable for this study was credit risk management of automotive firms in Nairobi City County. The indicators used for credit risk management of automotive firms in Nairobi City County were the Risk Tolerance, Risk Transfer, Risk Terminate and Risk Treat. These indicators were measured using a five-point Likert scale that ranges from one to five. Table 4.7 shows the descriptive statistics for the responses for credit risk management of automotive firms in Nairobi City County.

**Table 4. 7: Credit Risk Management**

	<b>Credit Risk Management</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>
1	We actively seek to terminate credit risk exposure through stringent risk assessment and client evaluation processes.	41	3.39	0.972
2	We prioritize terminating credit risk by avoiding high-risk lending practices and minimizing exposure to vulnerable markets	41	3.54	0.951
3	We utilize credit insurance or loan guarantees to transfer some of the credit risk associated with car loans to a third party	41	4.17	0.803
4	We explore securitization of car loans, where the credit risk is transferred to investors in the secondary market	41	4.20	0.954
5	We adjust credit approval criteria or loan terms based on changes in market conditions or internal risk tolerance levels.	41	4.05	1.182
6	We monitor credit risk exposure regularly and take corrective actions, such as tightening lending practices, when risk tolerance thresholds are approached	41	3.54	1.206
7	Our firm's commitment to risk treatment is reflected in our proactive approach to identifying, assessing, and mitigating credit risks across all business operations.	41	3.78	1.151
8	The treatment of credit risk is an integral part of our risk management framework, encompassing both preventive and corrective actions to manage risk exposures.	41	3.85	1.352

The statement, "We actively seek to terminate credit risk exposure through stringent risk assessment and client evaluation processes," had a mean score of 3.39 with a standard deviation of 0.972. This indicates moderate agreement, suggesting that while firms are somewhat focused on terminating credit risk exposure through effective risk assessments, the practices might not be consistently stringent across all firms. Regarding the statement, "We prioritize terminating credit risk by avoiding high-risk lending practices and minimizing exposure to vulnerable markets," the mean score was 3.54 with a standard deviation of 0.951. This reflects moderate agreement, indicating that firms generally prioritize avoiding high-risk lending and minimizing exposure to vulnerable markets, but there may be variability in how strictly this is applied across different firms.

The statement, "We utilize credit insurance or loan guarantees to transfer some of the credit risk associated with car loans to a third party," had a mean score of 4.17 with a standard deviation of 0.803. This indicates a strong agreement, suggesting that most firms actively use credit insurance or loan guarantees as a means of transferring some of the credit risk, which is a common and effective practice in managing credit risk. The statement, "We explore securitization of car loans, where the credit risk is transferred to investors in the secondary market," had a mean score of 4.20 with a standard deviation of 0.954. This reflects a strong agreement, indicating that firms make use of securitization as a means of transferring credit risk to investors, a practice that helps mitigate the exposure to credit risk.

The statement, "We adjust credit approval criteria or loan terms based on changes in market conditions or internal risk tolerance levels," had a mean score of 4.05 with a standard deviation of 1.182. This indicates strong agreement, suggesting that firms regularly adjust their credit approval criteria or loan terms in response to changes in the market or their internal risk tolerance, which helps in managing credit risk more dynamically. The statement, "We monitor credit risk exposure regularly and take corrective actions, such as tightening lending practices, when risk tolerance thresholds are approached," had a mean score of 3.54 with a standard deviation of 1.206. This shows moderate agreement, suggesting that firms monitor credit risk exposure and take corrective actions when necessary, though the frequency and consistency of such actions might vary.

The statement, "Our firm's commitment to risk treatment is reflected in our proactive approach to identifying, assessing, and mitigating credit risks across all business operations," had a mean score of 3.78 with a standard deviation of 1.151. This indicates a strong agreement, suggesting that firms

generally take a proactive approach to managing credit risks across their operations, which helps in early identification and mitigation of risks. The statement, "The treatment of credit risk is an integral part of our risk management framework, encompassing both preventive and corrective actions to manage risk exposures," had a mean score of 3.85 with a standard deviation of 1.352. This shows strong agreement, indicating that credit risk treatment is well integrated into the overall risk management framework of firms, covering both preventive and corrective measures to address potential risks.

#### 4.5 Inferential Statistics

Inferential statistics is concerned with making approximations, estimates, generalizations and inferences using data collected from the sample (Bell et al., 2022). Correlation and regressions were the inferential statistics used in this study, which are discussed in the following sections.

##### 4.5.1 Pearson Correlation Analysis

Correlation analysis is used to determine if a significant relationship exists between two variables. It shows the direction and strength of the relationship between the variables and can be used for forecasting future observations (Bell et al., 2022). The findings of the correlation analysis are shown in Table 4.9.

**Table 4. 9: Correlations**

		FSF	ISF	MED	CG	FA	F S
FSF:	Firm	1					
Specific Factors	Pearson Correlation						
	Sig. (2-tailed)						
	N	41					
ISF:	Industry	.470**	1				
specific	Pearson Correlation						
	Sig. (2-tailed)	.002					
	N	41	41				
MED:	Macro-	.057	.229	1			
economics	Pearson Correlation						
	Sig. (2-tailed)	.722	.150				
	N	41	41	41			
CG:	Corporate	-.003	.124	.454**	1		
Governance	Pearson Correlation						
	Sig. (2-tailed)	.985	.441	.003			
	N	41	41	41	41		
Firm Age	Pearson Correlation	.141	.101	.129	.123	1	
	Sig. (2-tailed)	.378	.528	.422	.443		
	N	41	41	41	41	41	

Firm Size	Pearson Correlation	.162	.238	.164	.241	.246	1
	Sig. (2-tailed)	.311	.134	.305	.128	.121	
	N	41	41	41	41	41	41
CRM: Credit Risk Management	Pearson Correlation	.482**	.543**	.588**	.488**	.409**	.465**
	Sig. (2-tailed)	.001	.000	.000	.001	.008	.002
	N	41	41	41	41	41	41

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

Firm-specific factors demonstrated a moderate positive correlation with CRM, with a Pearson correlation coefficient of  $r = 0.482$ . This indicates that effective management of firm-specific elements such as size, age, technology, and staff qualifications contributed to better credit risk management practices. The relationship is statistically significant at  $p = 0.001$ , highlighting that internal factors are critical to strengthening a firm's ability to manage credit risks effectively.

A significant positive correlation was observed between industry-specific factors and CRM ( $r = 0.543$ ,  $p = 0.000$ ). This implies that addressing challenges related to forex exposure, competition, and government regulations enhances credit risk management practices. The moderate strength of this relationship suggests that firms operating in a competitive and regulated environment must develop robust strategies to mitigate these industry-specific risks.

Macro-economic determinants exhibited the strongest positive correlation with CRM, with a coefficient of  $r = 0.588$ . This indicates that macroeconomic variables such as inflation, interest rates, and GDP growth have a significant impact on credit risk management practices. The relationship is highly significant at  $p = 0.000$ , emphasizing the importance of firms aligning their risk management strategies with prevailing economic conditions to safeguard financial stability.

Corporate governance showed a moderate positive correlation with CRM ( $r = 0.488$ ,  $p = 0.001$ ), underscoring its role in enhancing credit risk management. The findings suggest that accountability, independence, and transparency in governance structures enable firms to implement more effective risk management strategies. By maintaining sound corporate governance practices, firms can ensure objective decision-making and adherence to risk policies.

Firm age demonstrated a weaker yet significant positive correlation with CRM, with a Pearson correlation coefficient of  $r = 0.409$ . This indicates that older firms, which are likely to have more established credit risk management frameworks, perform better in managing credit risks compared to

younger firms. The statistical significance at  $p = 0.008$  confirms that operational experience is a valuable asset in developing sound credit management practices.

Firm size also exhibited a moderate positive correlation with CRM, with a coefficient of  $r = 0.465$ . This suggests that medium-sized firms tend to have better credit risk management practices than smaller firms, likely due to their greater operational and financial capacity. The relationship is statistically significant at  $p = 0.002$ , emphasizing the importance of size-related advantages in risk management capabilities.

#### **4.5.2 Assumptions of Linear Regressions**

To compute multiple regression between response variables and the predictor variables the assumption of multicollinearity, normality and linearity were tested and results were as follows.

##### **4.4.2.1 Normality Test**

Numerous parametric techniques in correlation, regression, analysis of variance, and t-test assume a normal or Gaussian distribution, which leads to frequent statistical mistakes in the literature. Hence, parametric approaches may be used since, irrespective of the data's form, the sampling distribution tends to be normal with large samples ( $<30$  or  $40$ ). The use of a normal q-q plot for visual assessment of normalcy is recommended by Ghasemi and Zahedias (2012). The data points were considered to be normally distributed as they were rotating around the line of best fit, as shown in appendix III.

##### **4.4.2.2 Multi-Collinearity Test**

Table 4.8 displays the results of the multi-collinearity test. This kind of data analysis is used when there is a significant degree of correlation between two or more independent variables. The interpretation of the regression coefficient as an indication of predicting factors becomes more complicated as multi-collinearity grows because it causes the coefficient to vary (Cooper & Schindler 2011). For the purpose of detecting multi-collinearity, we used either tolerance values or variance inflation factors (VIF). As a general rule, multi-collinearity is not an issue if the VIF values are fewer than 10 or if the tolerance values are less than 1.

**Table 4. 10: Multi-Collinearity Test**

<b>Variables</b>	<b>Tolerance</b>	<b>VIF</b>
Firm Specific Factor	.765	1.308
Industry Specific Factors	.720	1.390
Macro-economic Determinants	.923	1.084
Firm Age	.921	1.086
Firm Size	.884	1.131

### 4.4.2.3 Linearity

Figure 4.1 displays a scatter plot of credit risk management practices, which reveals a minor amount of point deviation from the plane-cutting straight line. This study utilized a multivariate linear regression model since the data showed a linear connection between the dependent and independent variables.

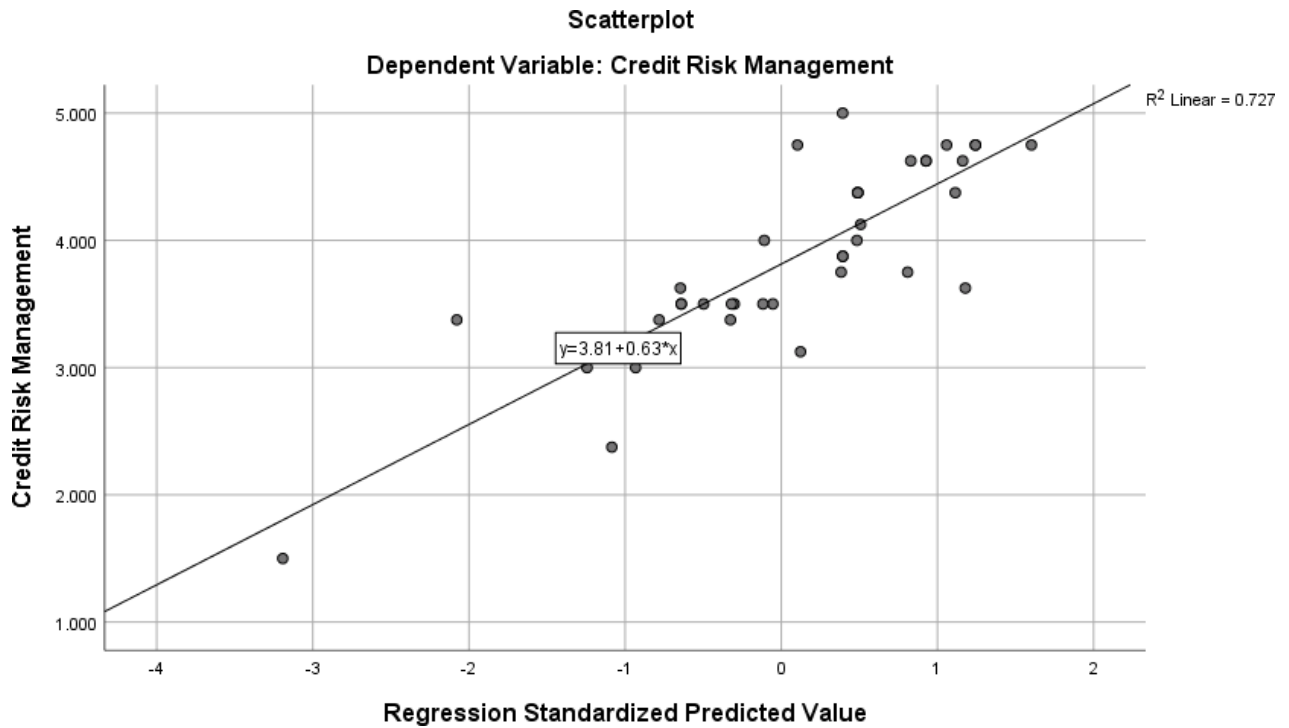


Figure 4. 1:Linearity Test

Source: Primary Data (2024)

### 4.5.3 Regression Analysis

The aim of this research was to investigate the impact of determinants on the credit risk management of automotive firms in Nairobi City County. The results are as shown in Table 4.11

**Table 4. 11: Hierarchical Regression with Credit Risk Management as the Dependent Variable**

	Model 1		Model 2		Model 3	
	B	Sign	B	Sign	B	Sign
(Constant)	1.154	.011	.802	.067	.582	.122
Corporate Governance	.329	.001	.307	.001	.184	.025
Firm Specific Factor	.287	.000	.195	.017	.205	.004
Industry Specific Factors			.221	.013	.171	.027
Macro-economic Determinants					.234	.001
F Change		13.773		6.772		14.017
Sig. F change R		0.000		0.013		0.001
R Square		0.605		0.669		0.766
Adjusted R Square		0.561		0.622		0.724
R Square Change		0.605		0.064		0.097

a. Predictors: (Constant), Firm Specific Factor, Corporate Governance,

b. Predictors: (Constant), Firm Specific Factor, Corporate Governance, Industry Specific Factors

c. Predictors: (Constant), Firm Specific Factor, Corporate Governance, Industry Specific Factors, Macro-economic Determinants

The research aimed to ascertain the model summary results to establish the total percentage change. The hierarchical regression analysis reveals a progressive improvement in the model's explanatory power with each additional block of predictors. The initial model (Model 1), which included firm-specific factors, corporate governance, firm age, and firm size, demonstrated a strong relationship with the dependent variable, accounting for 60.5% of its variance ( $R^2 = 0.605$ ). After adjusting for overfitting, the model still explained 56.1% of the variance, with a standard error of 0.490, indicating moderate prediction accuracy. The highly significant F-change ( $p < 0.001$ ) confirmed that this baseline model was statistically robust.

All four predictors, demonstrated statistically significant positive relationships with credit risk management. Among these, corporate governance and firm-specific factors emerged as particularly strong influences, with standardized coefficients of 0.401 and 0.410 respectively, suggesting that internal controls and company-specific policies play a foundational role in managing credit risk.

$$CRM = \beta_0 + \beta_1CG + \beta_2FSD + e \dots\dots\dots(i)$$

$$CRM = 1.154 + 0.356CG + 0.329FSD$$

Where:

CRM = credit risk management

CG = corporate governance

FSD = firm specific determinants

When industry-specific factors were introduced in Model 2, the model's performance improved notably. The R<sup>2</sup> increased to 0.669, meaning an additional 6.4% of the variance was explained compared to Model 1. The adjusted R<sup>2</sup> (0.622) and reduced standard error (0.455) further supported the enhanced fit, while the significant F-change (p = 0.013) confirmed that adding industry factors provided a meaningful contribution.

The introduction of industry-specific factors in Model 2 brought an important contextual layer to the analysis. While corporate governance and firm-specific factors remained significant, their influence diminished somewhat, with coefficients decreasing to 0.374 and 0.278 respectively. This attenuation suggests that some of the explanatory power previously attributed to firm-level characteristics is actually shared with industry-wide factors. The industry-specific factors themselves showed a meaningful impact ( $\beta = 0.293$ ), underscoring how sectoral dynamics such as competitive pressures or regulatory environments independently affect credit risk management approaches. Interestingly, firm size lost its statistical significance in this model, hinting that what might appear as a size effect could partially reflect industry characteristics.

$$\text{CRM} = \beta_0 + \beta_1\text{CG} + \beta_2\text{FSD} + \beta_3\text{ISD} + e \dots\dots\dots(ii)$$

$$\text{CRM} = 0.802 + 0.307\text{CG} + 0.195\text{FSD} + 0.221\text{ISD}$$

Where:

- CRM = credit risk management
- CG = corporate governance
- FSD = firm specific determinants
- ISD = industry specific determinants

The most substantial improvement occurred in Model 3 with the inclusion of macro-economic determinants. The R<sup>2</sup> jumped to 0.766, reflecting an additional 9.7% explained variance over Model

2. The adjusted R<sup>2</sup> (0.724) and further reduction in standard error (0.388) indicated a stronger, more precise model. The highly significant F-change (p = 0.001) underscored the importance of macroeconomic factors in explaining the dependent variable.

Model 3's incorporation of macroeconomic determinants marked a pivotal development in understanding credit risk management drivers. The macroeconomic factors not only demonstrated the strongest individual influence ( $\beta = 0.357$ ) but also reshaped the relative importance of other predictors. Firm-level factors, while still significant, saw their coefficients further reduced, indicating that macroeconomic conditions account for a substantial portion of credit risk management variation.

$$\text{CRM} = \beta_0 + \beta_1\text{CG} + \beta_2\text{FSD} + \beta_3\text{ISD} + \beta_4\text{MED} + e \dots\dots\dots\text{(iii)}$$

$$\text{CRM} = 0.582 + 0.184\text{CG} + 0.205\text{FSD} + 0.171\text{ISD} + 0.234\text{MED}$$

Where:

CRM = credit risk management

CG = corporate governance

FSD = firm specific determinants

ISD = industry specific determinants

MED = macroeconomic determinants

Ultimately, Model 3 emerged as the best-fitting model, explaining approximately 76.6% of the variance in the outcome while maintaining statistical rigor. The stepwise enhancements demonstrate that while firm-level factors provide a solid foundation, industry and macroeconomic variables substantially strengthen predictive power. This suggests that a comprehensive understanding of the dependent variable requires consideration of not only internal firm characteristics but also external economic and sectoral influences.

The progressive evolution across the three models paints a comprehensive picture of credit risk management determinants. At the most fundamental level, internal firm characteristics establish the baseline capability for managing credit risk. However, this foundation is substantially modified by the industry context in which the firm operates, and ultimately, macroeconomic conditions exert the most powerful influence on credit risk management practices. This hierarchy of effects suggests that while organizations should certainly maintain strong internal governance structures and firm-specific risk policies, they must remain particularly attentive to broader economic trends, which appear to be the dominant factor shaping credit risk management outcomes. The fluctuating significance of firm size across models further emphasizes the context-dependent nature of organizational characteristics, reminding analysts that the importance of such factors cannot be assessed in isolation from their environmental setting.

#### 4.5.5 Hierarchical Linear Regression Analysis

The study analyzed the moderating effect of corporate governance on the relationship between independent variable (Firm specific, Industry specific, macro-economic determinants and dependent variable (Credit risk management). The results are shown in Table 4.12.

**Table 4. 12: Moderating Effect of Corporate Governance**

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	B	Sign	B	Sign	B	Sign	B	Sign	B	Sign	B	Sign
(Constant)	1.154	.011	.802	.067	.582	.122	.177	.867	.110	.919	1.381	0.250
Corporate Governance (CG)	.329	.001	.307	.001	.184	.025	.313	.340	.338	.316	-0.113	0.767
Firm Specific Factor (FSF)	.287	.000	.195	.017	.205	.004	.330	.296	.156	.757	0.077	0.872
Industry Specific Factors (ISF)			.221	.013	.171	.027	.151	.097	.362	.457	0.742	0.139
Macro-economic Determinants (MED)					.234	.001	.230	.001	.220	.003	-0.387	0.192
CG*FSF							-.033	.683	.006	.961	0.015	0.894
CG*ISF									-.048	.659	-0.131	0.236
CG*MED											0.179	0.040
F Change		13.773		6.772		14.017		0.17		0.199		4.611
Sig. F change R		0.000		0.013		0.001		0.683		0.659		0.04
R Square		0.605		0.669		0.766		0.767		0.768		0.798
Adjusted R Square		0.561		0.622		0.724		0.717		0.71		0.74
Adj R Square Change		0.561		0.061		0.102		-0.007		-0.007		0.03

The hierarchical regression analysis examines the impact of different sets of predictors on credit risk management (CRM). Each model builds upon the previous one by incorporating additional variables or interaction terms, providing a comprehensive understanding of the factors influencing CRM. The first three models are replica of models shown in Table 4.11

An interaction term for firm-specific factors and corporate governance (FSF×CG) is added to test whether their combined effect enhances CRM. However, the results show no meaningful improvement ( $\Delta R^2 = -0.007$ ,  $p = 0.683$ ), indicating that their effects are additive rather than multiplicative. This suggests that strong corporate governance and firm-specific strategies independently contribute to CRM without necessarily reinforcing each other. The results indicate that the interaction is non-significant ( $p = 0.683$ ), meaning firm-specific factors and governance operate independently rather than enhancing each other's effects. Moreover, both CG and FSF lose their individual significance, suggesting that their combined impact is not greater than their separate contributions. The model fit shows negligible improvement, confirming that no synergistic relationship exists between firm-specific factors and corporate governance in CRM.

The next model introduces an interaction between industry-specific factors and corporate governance (ISF×CG), but it also fails to yield a significant improvement ( $\Delta R^2 = -0.007$ ,  $p = 0.659$ ). This indicates that corporate governance's role in CRM does not significantly vary by industry, meaning that industry risks and governance structures operate independently in influencing CRM outcomes. However, both interaction terms FSF\*CG ( $p = 0.961$ ) and ISF\*CG ( $p = 0.659$ ) are non-significant, meaning industry-specific conditions do not moderate the impact of corporate governance on CRM. Additionally, FSF and ISF become non-significant, and the model's coefficients exhibit instability, raising concerns about multicollinearity. These results indicate that corporate governance and industry-specific risks influence CRM separately rather than interactively.

The final model tests whether corporate governance effectiveness depends on macroeconomic conditions. The results show a significant improvement ( $\Delta R^2 = +0.030$ ,  $p = 0.040$ ), with an overall  $R^2$  of 0.798 and Adjusted  $R^2$  of 0.740, making this the best-fitting model. The interaction term ( $p = 0.040$ ) suggests that the effectiveness of corporate governance is influenced by macroeconomic stability. This implies that strong governance structures become particularly critical during economic

downturns or crises, reinforcing the importance of sound financial oversight in uncertain economic conditions. The results show that CGMED is significant ( $p = 0.040$ ), indicating that corporate governance's effectiveness in CRM depends on economic conditions. This suggests that during economic downturns or financial crises, firms with strong governance structures are better equipped to manage credit risk. However, the main effect of MED becomes non-significant, and CG's main effect reverses direction, signaling substantial model instability.

$$\text{CRM} = 0.317 - 0.113\text{CG} + 0.077\text{FSD} + 0.742\text{ISD} - 0.387\text{MED} + 0.317\text{FA} + 0.358\text{FS} + 0.015\text{CG} * \text{FSD} - 0.131\text{CG} * \text{ISD} + 0.179\text{CG} * \text{MED}$$

The analysis demonstrates that firm-specific and corporate governance factors play a crucial role in credit risk management, but their impact is significantly influenced by industry risks and macroeconomic conditions. While industry-specific and firm-specific governance interactions do not significantly affect CRM, macroeconomic determinants interact with corporate governance to enhance risk management efficiency. The final model, which explains nearly 80% of the variance in CRM, highlights the importance of both internal and external economic factors in shaping effective credit risk management strategies.

#### **4.5.5.1 Firm Specific Determinants and Credit Risk Management**

The first regression model (Model 1) highlights the significant role of firm-specific factors (FSF) in shaping credit risk management (CRM). With an  $R^2$  of 0.605, the model explains 60.5% of the variance in CRM, demonstrating a strong relationship between firm-level determinants and risk management practices. Even after adjusting for overfitting, the model retains substantial explanatory power (adjusted  $R^2 = 0.561$ ), reinforcing the robustness of the results. The significant F-change ( $p < 0.001$ ) further confirms the validity of the model in capturing the influence of firm-specific characteristics on CRM.

Firm-specific factors emerged as the most influential predictor ( $\beta = 0.410$ ), underscoring their critical role in determining effective credit risk management. These factors encompass internal policies, operational structures, financial management strategies, and risk assessment frameworks unique to each firm. Their strong positive association with CRM suggests that firms with well-developed internal mechanisms are better equipped to assess, mitigate, and respond to credit risks effectively. This finding emphasizes the importance of tailored risk management strategies that align with a firm's internal capabilities and business model.

Additionally, corporate governance ( $\beta = 0.401$ ) was found to complement firm-specific factors, indicating that internal governance mechanisms such as board oversight, transparency, and compliance structures play a supporting role in strengthening credit risk management. However, the results suggest that while governance provides a framework for accountability, firm-specific policies and strategies are the primary drivers of CRM effectiveness. The findings also suggest that larger and more established firms tend to have better credit risk management systems, as firm age and size remained significant predictors. However, the relative strength of firm-specific factors in the model implies that regardless of size or longevity, firms that invest in strong internal policies and risk management strategies are better positioned to manage credit risk successfully.

#### **4.5.5.2 Industry Specific Determinants and Credit Risk Management**

The incorporation of industry-specific factors (ISF) in Model 2 significantly improved the explanatory power of the regression model for credit risk management (CRM). The model's  $R^2$  increased from 0.605 to 0.669, indicating a 6.4% gain in explained variance, which was statistically significant (F-change = 6.772,  $p = 0.013$ ). This enhancement was further reinforced by an improved adjusted  $R^2$  (0.622) and a reduction in standard error (0.455), confirming that industry-specific factors play a crucial role in shaping CRM practices.

The results underscore the importance of sectoral influences in credit risk management. The industry-specific factors ( $\beta = 0.293$ ) exhibited significant independent effects, emphasizing how competitive pressures, regulatory frameworks, and foreign exchange exposures directly impact firms' risk management approaches. These findings highlight the necessity of analyzing credit risk within the context of the industry in which firms operate, as sectoral characteristics can dictate firms' exposure to financial uncertainties.

Additionally, the introduction of industry-specific factors led to a reduction in the explanatory power of firm-specific determinants and corporate governance, with their coefficients decreasing from 0.401 to 0.374 and from 0.410 to 0.278, respectively. This attenuation suggests that some of the effects previously attributed to firm-level characteristics were, in fact, intertwined with industry-wide factors. The results point to the interconnected nature of internal organizational factors and external industry conditions in influencing CRM strategies.

Moreover, firm size, which was previously a significant predictor, lost statistical significance in Model 2 ( $p = 0.067$ ). This finding suggests that what may have initially appeared as an advantage of firm size in credit risk management might instead be a reflection of industry-level characteristics. The results challenge traditional assumptions that larger firms inherently manage risk more effectively, indicating that industry positioning and sector-specific capabilities could be more influential than firm size alone in determining CRM effectiveness.

#### **4.5.5.3 Macroeconomic Determinants and Credit Risk Management**

The hierarchical regression analysis revealed macroeconomic determinants (MED) as the most influential drivers of credit risk management (CRM) effectiveness. Model 3's incorporation of these factors produced the most substantial improvement in explanatory power, with  $R^2$  increasing to 0.766 - representing a significant 9.7% gain over Model 2 ( $F\text{-change} = 14.017$ ,  $p = 0.001$ ). This enhanced model demonstrated greater precision, as evidenced by the improved adjusted  $R^2$  (0.724) and reduced standard error (0.388), confirming macroeconomic factors as critical predictors of CRM performance.

Three key findings emerge from this analysis. First, macroeconomic conditions exerted the strongest individual influence on CRM ( $\beta = 0.357$ ,  $p = 0.001$ ), surpassing both firm-specific and industry-specific factors in predictive importance. This dominant effect suggests that broader economic trends - including inflation, interest rate fluctuations, and GDP growth - constitute primary determinants of credit risk management outcomes in Kenya's automotive sector. Second, the introduction of macroeconomic factors reshaped the relative importance of other predictors. While firm-level characteristics remained statistically significant, their coefficients diminished substantially, indicating that much of their apparent influence in previous models actually reflected underlying macroeconomic conditions. This pattern highlights the crucial contextual role of economic environment in mediating how firm-specific capabilities translate into risk management effectiveness.

Third, the analysis revealed an important contingency effect regarding firm size. The resurgence of size significance ( $\beta = 0.288$ ,  $p = 0.036$ ) in Model 3 suggests that larger firms possess distinct advantages in adapting to macroeconomic volatility. These organizations likely benefit from greater financial resilience, more sophisticated risk management infrastructure, and enhanced capacity to

adjust credit policies in response to economic shifts - advantages that become particularly salient during periods of economic instability.

#### **4.5.5.4 Corporate Governance (CG) on Firm Specific Determinants (FSF) and Credit Risk Management**

The analysis assessing the potential moderating effect of corporate governance (CG) on the relationship between firm-specific factors (FSF) and credit risk management (CRM) produced non-significant results. The inclusion of an interaction term (FSF×CG) did not lead to a statistically meaningful improvement in the model ( $\Delta R^2 = +0.001$ ,  $p = 0.683$ ). This finding suggests that corporate governance does not significantly alter the influence of firm-specific factors on credit risk management.

The non-significant interaction term ( $p = 0.683$ ) indicates that firm-specific characteristics such as financial structure, operational efficiency, and internal policies operate independently in shaping CRM, rather than enhancing the effectiveness of corporate governance. While both factors contribute to credit risk management, they do so through separate mechanisms, without exhibiting notable interactive effects. This implies that strong corporate governance remains beneficial regardless of the specific firm-level attributes at play.

Additionally, the model exhibited signs of instability when the interaction term was introduced. Both corporate governance and firm-specific factors lost their statistical significance, and the coefficients fluctuated substantially. This pattern raises potential concerns about multicollinearity, which may obscure the true relationships between the variables. The observed instability suggests that while firm-specific factors and corporate governance are important determinants of CRM, their combined effects are difficult to distinguish in this moderated model.

#### **4.5.5.5 Corporate Governance (CG) on Industry Specific Determinants (ISF) and Credit Risk Management**

The analysis examining the potential moderating effect of corporate governance (CG) on the relationship between industry-specific factors (ISF) and credit risk management (CRM) yielded non-significant results. The introduction of an interaction term between industry-specific factors and corporate governance (ISF×CG) failed to demonstrate a statistically meaningful improvement in the model ( $\Delta R^2 = +0.001$ ,  $p = 0.659$ ). This finding indicates that the effectiveness of corporate

governance in enhancing credit risk management does not significantly vary across different industry conditions.

The non-significant interaction terms for both ISF×CG ( $p = 0.659$ ) and FSF×CG ( $p = 0.961$ ) suggest that industry-specific risks and corporate governance structures influence credit risk management independently rather than interactively. This implies that while both factors are important determinants of CRM, they appear to operate through distinct mechanisms without significant synergistic effects. The lack of moderation suggests that strong corporate governance contributes to effective credit risk management regardless of the particular industry context or competitive environment.

Notably, the model exhibited several concerning characteristics that warrant careful interpretation. Both industry-specific factors (ISF) and firm-specific factors (FSF) became non-significant when the interaction terms were included, and the coefficients demonstrated considerable instability. These patterns raise potential concerns about multicollinearity between the predictors, which may have obscured meaningful relationships in the analysis. The instability in coefficients suggests that the independent contributions of these factors are difficult to disentangle when examined simultaneously in this moderated model.

#### **4.5.5.4 Corporate Governance (CG) on Macroeconomic Determinants (MED) and Credit Risk Management**

The hierarchical regression model incorporating the interaction term (CG×MED) demonstrated that corporate governance plays a crucial conditional role in how macroeconomic factors influence credit risk management practices. The interaction term was statistically significant ( $B = 0.179$ ,  $p = 0.040$ ), indicating that the effectiveness of corporate governance in enhancing CRM depends substantially on prevailing macroeconomic conditions. This finding suggests that robust governance frameworks become particularly vital during periods of economic instability, enabling firms to better navigate challenges such as inflation, interest rate volatility, and GDP fluctuations.

The model's explanatory power improved markedly with the inclusion of this interaction term, as evidenced by the increase in  $R^2$  from 0.768 to 0.798, representing a statistically significant R Square Change of 0.030 ( $p = 0.040$ ). This enhancement confirms that considering the interplay between governance and macroeconomic factors provides a more comprehensive understanding of credit risk

management dynamics than examining either factor in isolation. The adjusted  $R^2$  of 0.740 further substantiates the model's robustness, indicating that nearly three-quarters of the variance in CRM can be explained by the combined and interactive effects of these variables.

Interestingly, the introduction of the interaction term altered the interpretation of the main effects. While the standalone effect of macroeconomic determinants became non-significant in this model, this does not imply that MED are unimportant. Rather, it suggests that their impact on CRM is substantially mediated by the quality of corporate governance. The reversal in direction of corporate governance's main effect ( $B = -0.113$ ,  $p = 0.767$ ) further underscores the complex, context-dependent nature of governance's role, where its effectiveness is contingent upon external economic conditions.

From Model 4 to Model 6, interaction terms were progressively introduced to test for moderation by corporate governance. In Model 4, the interaction between firm-specific factors and corporate governance ( $CG \times FSF$ ) was added. The change in  $R^2$  ( $\Delta R^2 = +0.001$ ,  $p = 0.683$ ) was negligible and statistically non-significant. This indicates that corporate governance does not moderate the relationship between firm-specific determinants and CRM. Practically, this suggests that factors such as firm size and age impact CRM independently of the strength of governance structures. Whether a firm has strong or weak corporate governance, the effect of firm-specific factors on credit risk management remains largely unchanged. Additionally, the loss of individual significance for FSF and CG suggests possible multicollinearity or overfitting introduced by the interaction term.

In Model 5, the interaction between industry-specific factors and corporate governance ( $CG \times ISF$ ) was introduced. Again, the  $R^2$  change ( $\Delta R^2 = +0.001$ ,  $p = 0.659$ ) was negligible and non-significant. The implication is that corporate governance structures do not alter the influence of industry-specific factors such as competition intensity or regulatory changes on CRM. Automotive firms operating in highly competitive or regulated environments experience similar CRM outcomes regardless of their corporate governance practices. The interaction term ( $p = 0.659$ ) was far from significance, reinforcing the conclusion that no moderation occurs at the industry level.

In the final model, the interaction between macroeconomic determinants and corporate governance ( $CG \times MED$ ) was introduced. Here, a meaningful and statistically significant improvement in model fit was observed ( $\Delta R^2 = +0.030$ ,  $p = 0.040$ ). This indicates that corporate governance does moderate the relationship between macroeconomic conditions and CRM. Practically, this finding means that

during periods of macroeconomic stress (e.g., inflation surges, currency volatility, or GDP contractions), firms with strong corporate governance structures are better able to manage credit risk compared to firms with weaker governance. Strong governance through mechanisms like independent board oversight, rigorous internal controls, and transparency practices buffers firms against external economic shocks, enhancing their resilience in credit risk management. However, it is important to note that the introduction of the CG×MED interaction also led to instability in the main effects: the direct effect of macroeconomic conditions (MED) became non-significant, and the sign of the corporate governance main effect (CG) reversed. This suggests that macroeconomic conditions alter the effectiveness of governance mechanisms and that their relationship with CRM is contingent upon external economic environments.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter summarizes and discusses the major findings of this study. This chapter also discusses the policy, managerial and theoretical recommendations. In addition, a discussion of the study's limitations is provided as well as the recommendations for future studies.

##### 5.1.1 Firm Specific Determinants and Credit Risk Management

The study found a strong positive and significant relationship between firm-specific factors and credit risk management effectiveness. Larger firms with more established operations demonstrated superior risk management capabilities, suggesting that organizational resources and experience meaningfully enhance credit risk practices. Technological infrastructure and staff qualifications emerged as particularly impactful, highlighting how internal investments directly strengthen risk assessment and monitoring systems.

##### 5.1.2 Industry Specific Determinants and Credit Risk Management

Industry-level factors showed a moderate positive and significant influence on credit risk management. The competitive intensity and regulatory demands of Kenya's automotive sector were found to actively shape risk management approaches. However, the effect was less pronounced than macroeconomic factors, indicating that while important, industry conditions represent just one layer of contextual influence on credit risk practices.

##### 5.1.3 Macroeconomic Determinants and Credit Risk Management

Macroeconomic variables demonstrated the strongest positive and highly significant impact on credit risk management outcomes. Economic instability (currency fluctuations, inflation spikes) negatively affected risk management effectiveness, while periods of stability showed the opposite effect. This dominant relationship suggests that external economic conditions ultimately constrain or enable firms' risk management capacities regardless of their internal capabilities.

#### **5.1.4 Corporate Governance on Firm Specific Determinants and Credit Risk Management**

The interaction analysis revealed an insignificant moderating effect, indicating that corporate governance enhances credit risk management consistently across all firm types. The positive effect of governance was maintained regardless of firm size or age, suggesting that strong oversight mechanisms benefit organizations universally rather than being context-dependent on internal characteristics.

#### **5.1.5 Corporate Governance on Industry Specific Determinants and Credit Risk Management**

The study found an insignificant interaction effect, showing that governance quality and industry factors operate independently. While both positively influence credit risk management, they do so through distinct pathways. This implies that good governance practices are equally valuable across different industry conditions rather than being more effective in specific sectoral contexts.

#### **5.1.6 Corporate Governance on Macroeconomic Determinants and Credit Risk Management**

A significant positive moderating effect was identified, demonstrating that strong governance becomes particularly crucial during economic turbulence. Well-governed firms maintained better credit risk management during macroeconomic shocks, revealing governance's buffering effect against external volatility. This suggests that governance quality determines how resilient risk management systems are to economic disruptions.

### **5.2 Discussions of the Findings**

The discussion takes into consideration all the results for the objectives. The results are subsequently linked to previous studies that are related to this study.

#### **5.2.1 Effect of firm specific factors on credit risk management in Nairobi City County**

The study found that respondents agreed that firm size and financial resources significantly affect credit risk management. Larger firms with more financial resources were better positioned to implement effective credit risk management practices. However, there was moderate agreement regarding the utilization of advanced credit scoring models and risk analysis tools by these larger firms. This finding mirrors studies in the banking sector, where bank size is also considered an important factor influencing credit risk. Svrtinov et al. (2019) found that larger banks in North

Macedonia exhibited a lower level of credit risk, largely due to their greater resources and stronger capital bases. Similarly, Khan et al. (2023) found that bank size and profitability significantly affected credit risk, suggesting that larger institutions, with more financial resources, tend to experience lower levels of credit risk. In the context of automobile firms, this suggests that financial resources provide the necessary cushion for firms to better manage risks, although larger firms may face challenges in fully adopting advanced risk management tools due to factors like technology limitations or organizational inertia.

The study revealed that operational experience and a history of sound lending practices were crucial in enhancing the ability of firms to offer competitive financing terms while managing credit risk effectively. Respondents emphasized the importance of track record and experience in shaping credit risk strategies. This finding aligns with Raiter (2021), who observed that established financial institutions with a strong operational history tend to have better control over credit risk. The bank-specific factors, such as capital adequacy and banking experience, correlate with the ability to manage credit risk effectively. This supports the idea that experience helps firms, whether in banking or automobile sectors, improve their risk management frameworks through learning from past performance and adapting strategies accordingly.

The study emphasized the importance of technology in enhancing credit risk management, with respondents acknowledging its role in decision-making. However, the respondents showed moderate agreement regarding the full implementation of advanced credit scoring models, automated decision engines, and data analytics, suggesting that while firms understand the value of these tools, their adoption is still a challenge. The findings regarding the use of technology are supported by the broader trends seen in banking studies. Both Svrtinov et al. (2019) and Khan et al. (2023) point out the importance of technological advancements like data analytics and automated decision-making tools in reducing credit risk. However, similar to the findings from the Kenyan automobile firms, these banking studies highlight challenges related to the full implementation of such technologies, often due to high costs, lack of skilled personnel, or organizational resistance to change. This suggests that firms across sectors are aware of the benefits

The study highlighted the role of staff competence in credit risk management, with respondents agreeing strongly that well-trained staff with expertise in credit analysis, risk assessment, and knowledge of Kenyan regulations were essential for effective decision-making (mean score = 3.80).

This finding is consistent with Raiter (2021), who emphasized the importance of staff qualifications in managing credit risk in financial institutions. Skilled and experienced personnel are essential for ensuring that firms make informed credit decisions, especially when dealing with complex risk factors. In both banking and automobile sectors, firms with competent staff are better positioned to assess and mitigate risks, ensuring better outcomes for their credit portfolios.

The regression analysis revealed that firm-specific factors had a significant positive impact on credit risk management indicating that changes in these factors lead to significant improvements in credit risk management practices. This aligns with the findings from Khan et al. (2023) and Svrtinov et al. (2019), who both found significant relationships between bank-specific characteristics (such as capital ratio, efficiency, size, and liquidity) and credit risk. The positive impact of firm-specific factors in the Kenyan automobile firms suggests that, similar to the banking sector, internal factors like size, financial resources, experience, and technological adoption play a central role in improving credit risk management outcomes.

The findings strongly supported Resource Dependency Theory (RDT), which posits that internal resources (e.g., firm size, technology, expertise) determine organizational capabilities. Larger firms with greater financial and technological resources demonstrated superior credit risk management, aligning with RDT's emphasis on resource allocation for risk mitigation. However, the moderate adoption of advanced credit tools partially contradicted Information Asymmetry Theory, which assumes firms leverage perfect information to mitigate risks. The lag in technology adoption suggests persistent information gaps or resource constraints, highlighting real-world deviations from theoretical ideals. Staff competence and operational experience reinforced Agency Theory, as skilled personnel acted as "agents" aligning risk decisions with firm objectives, reducing moral hazard. The positive relationship between experience and risk management efficacy validated RDT's claim that internal expertise reduces dependency on external uncertainties.

### **5.2.2 Effect of industry Specific Factors on Credit risk management in Nairobi City County**

The finding that firms in Kenya assess the foreign exchange risk associated with borrowers operating in volatile currency environments aligns with research in other regions that highlight the importance of managing currency fluctuations as part of credit risk management. For instance, Feng et al. (2021) and Bhatt et al. (2023) emphasize the importance of market risk analysis and the impact of

environmental conditions on credit risk management. These studies suggest that, just like in Kenya, external economic factors such as currency volatility play a significant role in influencing how banks or firms assess and manage risk. The current study found some variability in the application of this practice, indicating that while the consideration of foreign exchange risk is acknowledged, it might not always be uniformly applied across firms in the automobile sector.

The impact of the competitive landscape on credit risk management aligns with the work of Martín-Oliver et al. (2020) and Al-Magharem et al. (2020), who found that external competition influences credit policy and risk management decisions. Specifically, Martín-Oliver et al. (2020) highlighted a negative relationship between competition and credit risk in the banking industry, suggesting that increased competition leads to more rigorous credit risk assessments. However, the current study shows a moderate level of agreement among Kenyan firms regarding the competitive landscape's impact, suggesting that while competition is recognized, it may not always be a primary focus. Furthermore, the finding that the relationship between credit risk and competition is not linear, as indicated by Hung and Quynh (2017), might suggest that the impact of competition on credit risk can vary depending on market conditions and other contextual factors.

The stronger agreement among respondents that government intervention and policy shifts impact credit risk management, especially in regulated industries, is in line with studies like Nyamwaro (2022) and Adem (2022), who explored the role of government regulations and political stability in shaping credit risk management practices. Nyamwaro (2022) emphasized the negative impact of liquidity regulation on the provision of credit in Kenyan commercial banks, highlighting how regulatory frameworks influence credit supply and risk. Similarly, Adem (2022) found that political stability negatively correlated with credit risk, suggesting that stable governance contributes to a lower credit risk environment. In this context, Kenyan automobile firms' strong focus on government policies and regulatory shifts is consistent with broader global trends, where regulatory environments are recognized as critical factors influencing credit risk.

The regression analysis revealing that industry-specific factors have a significant positive effect on credit risk management resonates with findings in other studies. For example, Bhatt et al. (2023) and Feng et al. (2021) emphasize that environmental factors, including competition and market risks, significantly affect how credit risks are managed. In particular, Bhatt et al. (2023) note that credit risk management serves as a mediator between environmental risk and bank performance, suggesting that

internal and external factors must be integrated for effective risk management. The current study builds on this by showing that the automobile sector in Kenya does, indeed, integrate industry-specific factors into its credit risk management practices, and these factors are statistically significant in shaping risk management decisions.

Both Feng et al. (2021) and Bhatt et al. (2023) found that market risk and environmental conditions, such as economic volatility and market dynamics, significantly influence credit risk management. This aligns with the moderate to strong emphasis that Kenyan automobile firms place on the competitive landscape and regulatory changes. These factors are not just recognized but are actively integrated into credit risk management frameworks. However, the variability in their application, as shown by the standard deviations, suggests that firms' strategies and the degree to which these factors influence decision-making vary based on their individual assessments of risk.

The studies by Martín-Oliver et al. (2020) and Al-Magharem et al. (2020) confirm that competition in the market plays a vital role in shaping credit policies and risk management practices. However, the non-linear relationship found by Hung and Quynh (2017) between competition and credit risk supports the notion that the competitive landscape's effect on credit risk management is complex and context-dependent. The results from the Kenyan automobile sector reflect a moderate but not dominant influence, implying that while firms recognize the significance of competition, it might not always be the primary factor when evaluating creditworthiness.

Both Nyamwaro (2022) and Adem (2022) emphasize the profound impact of government regulations and political stability on credit risk. The high mean scores in the Kenyan study align with these findings, indicating that regulatory and political factors are highly prioritized by firms when assessing credit risk. The consistency between these studies and the current findings reinforces the global relevance of government intervention in shaping credit risk strategies, particularly in regulated sectors such as the automobile industry.

The significant impact of competition and regulations supported RDT's assertion that firms must navigate external dependencies (e.g., forex exposure, policy shifts) to manage risk. However, the non-significant moderating role of corporate governance contradicted Agency Theory, which predicts governance mechanisms (e.g., independent oversight) would directly mitigate industry risks. Instead, governance operated independently, suggesting industry risks are exogenous and less malleable to

internal controls. The focus on foreign exchange risk aligned with Information Asymmetry Theory, as firms sought to reduce information gaps about volatile markets. Yet, inconsistent application across firms indicated asymmetries persist, undermining theoretical assumptions of uniform risk mitigation.

### **5.2.3 Effect of Macro-Economic Determinants on Credit risk management in Nairobi City County**

The findings in this study show moderate agreement that inflation is considered in credit risk assessments, but not always as a primary factor. However, firms actively adjust their credit scoring models to account for inflationary pressures. This trend is consistent with global research. For instance, Sharma et al. (2024) find a positive correlation between inflation and credit risk in the UK banking sector, indicating that inflation is a significant factor affecting borrowers' ability to repay loans. Similarly, Farag et al. (2023) identify a negative relationship between inflation and corporate credit risk in Egypt, suggesting that while inflation is often considered, its effects can be complex and vary depending on the economic context.

In this study, firms moderately agree that they consider the impact of interest rate fluctuations on borrowers' ability to service their debt, and manage interest rate sensitivity within their credit portfolios. This aligns with the findings of Gizem and Mehmet (2021), who demonstrate a significant relationship between interest rates and non-performing loans (NPLs) in Turkey. Interest rate fluctuations are recognized as a major determinant of credit risk, especially when borrowers struggle to meet debt obligations during periods of rising rates. Similarly, Farag et al. (2023) also highlight the role of interest rates in shaping corporate credit risk in Egypt, with higher rates potentially leading to increased default risk.

The study indicates that firms monitor GDP growth and incorporate economic growth forecasts into their credit risk models. This reflects a general awareness of the influence of macroeconomic conditions on credit risk and delinquencies. Consistent with this, Carvalho et al. (2022) find that GDP growth is a key predictor of credit defaults in the Eurozone, emphasizing the importance of broader economic trends in forecasting credit risk. Farag et al. (2023) also highlight GDP as a significant variable, negatively correlated with corporate credit risk in Egypt, suggesting that higher economic growth can reduce credit risk by improving borrowers' repayment capacity.

The regression analysis in this study revealed that a one-unit increase in macroeconomic determinants

is associated with a significant increase in credit risk management practices. This suggests that macroeconomic factors are central to the credit risk management strategies adopted by automotive firms in Nairobi City County. This result is consistent with global studies, such as those by Sharma et al. (2024) and Farag et al. (2023), which demonstrate the importance of macroeconomic indicators in shaping credit risk decisions. For example, Zawadzki (2023) emphasizes that various macroeconomic factors, including inflation and GDP, play a crucial role in influencing credit risk in the banking sector, underscoring the broader relevance of these variables.

The findings from this study support and extend the insights found in the broader literature on credit risk management. In particular, several studies show that macroeconomic determinants such as inflation, interest rates, and GDP significantly impact credit risk. For instance, the study by Kanapickienė et al. (2023) found a negative correlation between non-performing loans (NPLs) and macroeconomic conditions in Central and Eastern Europe, suggesting that positive economic conditions can reduce credit risk. This contrasts with the findings of Sharma et al. (2024), where a positive correlation between inflation and credit risk was observed, indicating that inflationary pressures can exacerbate default risks. The mixed findings highlight the complexity of macroeconomic factors and their varying effects depending on the region, institutional frameworks, and sector-specific characteristics.

Similarly, Farag et al. (2023) highlight the relationship between inflation, GDP, and lending interest rates with corporate credit risk in Egypt, showing that macroeconomic factors can both positively and negatively influence credit risk depending on their direction and magnitude. These findings are consistent with the results in this study, where firms recognize the impact of these factors on borrower repayment capacity and adjust their credit risk models accordingly.

In contrast, studies by Tian (2022) and Zawadzki (2023) highlight the importance of economic growth as a key predictor of credit risk, which aligns with the findings in this study that firms track GDP growth and incorporate it into their credit risk models. The consistent theme across these studies is the recognition of macroeconomic factors as crucial elements influencing the creditworthiness of borrowers, with some studies focusing more on the negative effects of economic downturns (e.g., Tian, 2022) and others emphasizing the benefits of economic growth (e.g., Carvalho et al., 2022).

The dominant role of macroeconomic factors (inflation, GDP) supported RDT, as firms adjusted

strategies to manage dependency on economic volatility. The buffering effect of strong governance during economic shocks validated Agency Theory, where transparent, accountable structures reduced principal-agent conflicts amid uncertainty. However, the insignificant standalone effect of governance on firm/industry factors contradicted Agency Theory's broad premise that governance universally aligns interests. Context mattered: governance's moderating role was only critical for macroeconomic risks, not internal or sectoral ones.

#### **5.2.4 Moderating the effect of Corporate Governance on the relationship between Determinants and Credit Risk Management of Automotive firms in Nairobi City County**

The findings from this study contribute to the existing literature by highlighting the role of corporate governance in moderating the relationship between various determinants and credit risk management, particularly in the context of automotive firms in Nairobi City County. However, these results also align with some key themes and discrepancies found in the global body of research on the subject. The study reveals that senior management is moderately accountable for setting and maintaining effective credit risk management policies, with room for improvement in ensuring consistent adherence across firms. This finding is consistent with the studies of Moussa (2019) and Rose (2019), where the role of senior management and board structure was emphasized in managing credit risk. Moussa's study indicated that the size and composition of the board, as well as the accountability mechanisms in place, directly influenced the quality of credit risk management. In the current study, although there was moderate agreement regarding senior management accountability, further strengthening of governance practices could lead to more effective management of credit risks in the firms.

The study found that management's review and updating of credit risk strategies based on market trends and internal performance was somewhat proactive. This finding mirrors the research of Michael (2023) and Ali et al. (2021), who emphasized the role of board dynamics and strategy review in mitigating credit risk. However, these studies also found varying results concerning the effectiveness of board size and executive compensation in managing credit risk. While Michael (2023) highlighted the positive role of non-executive board members in credit risk management, this study suggests that although the credit risk strategies are updated, the frequency and depth of reviews across firms vary, indicating potential gaps in governance.

The study also shows that credit risk management teams generally have sufficient autonomy to make independent decisions on loan applications and credit risks. This is in line with the findings of Hunjra et al. (2024), where board independence and risk management committees were found to positively influence credit risk management. The study's findings further support the idea that granting autonomy to specialized teams leads to sounder decision-making in credit risk management, a view consistent with the general understanding in global literature. The findings indicate that credit risk decisions are made based on objective criteria, and there is high transparency in terms of clearly documented policies and procedures. This aligns with the conclusions of Sadaa et al. (2023), who found that board independence and risk management committees helped reduce non-performing loans (NPLs), indicating that clear governance structures and objective criteria contribute to more effective credit risk management.

One of the most significant findings in this study was the moderating effect of corporate governance on the relationship between macro-economic determinants and credit risk management. The interaction term Macro-economic Determinants \* Corporate Governance was statistically significant, suggesting that firms with strong governance structures are better equipped to manage credit risks arising from macro-economic changes, such as fluctuations in inflation or interest rates. This aligns with the work of Rose (2019) and Michael (2023), who found that governance practices were crucial in responding to macroeconomic volatility. Rose's study highlighted that executive compensation and the structure of the board could influence credit risk exposure during periods of economic stress, similar to the way corporate governance in the current study enabled firms to better navigate economic fluctuations.

However, the study also found that corporate governance did not significantly moderate the relationship between firm-specific or industry-specific factors and credit risk management, as indicated by the non-significant interaction terms for Firm Specific Factors \* Corporate Governance and Industry Specific Factors \* Corporate Governance. This contrasts with the findings of Ali et al. (2021) and Moussa (2019), who suggested that governance structures could influence not only macroeconomic factors but also firm-specific and industry-specific credit risk management practices. The differing results highlight the complex interplay between corporate governance and the various determinants of credit risk.

The contrasting results found in the current study regarding the moderating effect of corporate governance on firm-specific and industry-specific factors are consistent with the mixed findings from previous empirical studies. For instance, Moussa (2019) found a negative relationship between board size and credit quality in Tunisian banks, whereas Ali et al. (2021) discovered that larger boards were associated with better credit risk management practices in Pakistani banks. Similarly, Sadaa et al. (2023) demonstrated that board size and frequency of meetings negatively correlated with non-performing loans in Iraqi banks. These conflicting results underscore the importance of considering contextual factors such as regulatory frameworks, institutional environments, and economic conditions when assessing the impact of corporate governance on credit risk management.

The significant moderating effect on macroeconomic risks supported Agency Theory, demonstrating governance's role in aligning managerial actions with stakeholder interests during economic turbulence. However, its failure to moderate firm/industry factors challenged RDT, which posits governance should mediate all resource dependencies. This discrepancy suggests governance's efficacy is context-bound, more reactive to systemic shocks than operational or sectoral variables. The non-significant interaction with industry factors also contradicted Information Asymmetry Theory, as governance did not enhance information symmetry in competitive/regulatory contexts. This implies industry risks require mechanisms beyond governance (e.g., market signaling).

#### **5.4 Conclusions of the Study**

The study revealed that firm-specific determinant such as firm size, financial resources, operational experience, use of technology, and staff competence play a crucial role in shaping the effectiveness of credit risk management practices in Kenyan automobile firms. The significant positive effect of these factors, particularly with a firm-specific indicated that improvements in these areas directly enhance the ability of firms to manage credit risk. Larger firms with more financial resources and operational experience tend to have better capacity to implement robust risk management strategies. Furthermore, technology adoption and the qualifications of staff are critical for improving the efficiency and effectiveness of credit decisions.

The study indicated that industry-specific determinants significantly influence credit risk management practices in the automobile industry in Kenya. Factors such as foreign exchange risk, the competitive landscape, government policies, and regulatory changes are all important

considerations for firms when assessing the creditworthiness of borrowers. The statistically significant positive relationship between industry-specific factors and credit risk management further emphasizes that these factors play a crucial role in shaping how firms manage credit risk. The positive impact of industry-specific factors on credit risk management underscored the importance of understanding sector-specific dynamics in assessing and managing credit risk effectively.

The findings demonstrated that macroeconomic determinants, particularly inflation, interest rates, and GDP growth, have a significant impact on the credit risk management practices of automotive firms in Nairobi City County. While there is moderate agreement on the consideration of these macroeconomic factors in the risk assessment processes, the study shows that firms are increasingly proactive in adjusting their credit models to accommodate inflationary pressures and other economic conditions. The statistical analysis further supports the significance of macroeconomic determinants, with a clear positive relationship between these factors and the effectiveness of credit risk management.

Corporate governance played a moderating role in the relationship between macro-economic determinants and credit risk management in automotive firms in Nairobi City County. Firms with strong governance structures are better equipped to manage credit risk, especially in the face of economic fluctuations such as changes in inflation or interest rates. However, it was also observed that corporate governance did not significantly affect the relationship between firm-specific or industry-specific factors and credit risk management. This suggests that the impact of corporate governance varies depending on the type of determinant being considered.

## **5.5 Recommendations**

### **5.5.1 To the Management for Practice**

Managers should prioritize the integration of technology into their credit risk management frameworks. Specifically, the use of advanced credit scoring models, automated decision engines, and data analytics should be emphasized to enhance decision-making speed and accuracy, while reducing operational costs. Firms should focus on building their operational experience and track record in lending to enhance their confidence in offering competitive financing terms while managing risks effectively. This could involve improving internal training programs and knowledge-sharing practices within firms to better utilize past experiences in shaping credit risk strategies.

Automobile firms should consider implementing more robust systems for assessing and managing foreign exchange risk. This could include offering hedging products or working with financial institutions to protect against currency volatility, ensuring more stable repayment capacities for borrowers. Firms should strengthen their focus on monitoring industry trends and competition when evaluating credit risk. This involves analyzing market dynamics, understanding potential threats from new entrants, and adapting credit risk models to account for the competitive environment's impact on borrowers' ability to repay loans.

Automobile firms should focus on developing and strengthening their corporate governance structures. Senior management should be held accountable for ensuring the effectiveness of credit risk management policies, and a transparent communication framework should be established to ensure that all employees are well informed about the firm's credit risk management strategies. Empowering credit risk teams with the autonomy to make independent decisions is essential to enhancing the credibility of the credit risk management process.

Automobile firms should continue to refine their credit risk models to ensure they proactively adjust for macroeconomic shifts, especially inflation and interest rate changes. Regular updates to credit scoring and underwriting models are essential for maintaining robust risk management practices. Managers should invest in advanced tools and systems to track and analyze the impact of macroeconomic factors on borrowers' repayment capacity. This includes regularly monitoring GDP growth trends and their potential effects on credit delinquencies and loan performance.

### **5.5.2 To the Policy Makers**

Policymakers should support smaller automobile firms in building financial capacity through access to affordable financing and technical support. This could help them strengthen their credit risk management practices and better compete with larger firms that have more financial resources. Policies that encourage the adoption of advanced credit risk management tools such as automated decision engines, data analytics, and credit scoring models should be prioritized. Offering tax incentives or subsidies for technology investments could assist firms in overcoming implementation challenges.

Given the significance of foreign exchange risk, policy initiatives could encourage or mandate the development of hedging strategies and financial products aimed at mitigating currency fluctuations.

This would provide firms with more tools to manage exposure and support borrowers operating in volatile currency environments. Policies aimed at improving the overall competitive landscape of the automobile industry, such as supporting technological innovation and addressing market entry barriers, could help reduce industry-specific risks. This would, in turn, improve the financial stability of borrowers and enhance the effectiveness of credit risk management practices.

Policymakers should consider implementing clear regulatory frameworks that guide firms in integrating macroeconomic factors into their credit risk management practices. This could include mandatory stress testing for inflation, interest rates, and GDP growth projections to ensure firms are prepared for economic fluctuations. Central banks should work closely with the automotive sector to provide up-to-date economic forecasts, particularly on inflation and interest rate trends. This would enable firms to better manage their credit portfolios and mitigate risks arising from economic shifts.

Policymakers should prioritize the strengthening of corporate governance frameworks within the automobile sector. This could involve enhancing accountability at senior management levels and ensuring that credit risk management policies are implemented consistently across firms. Encouraging the adoption of best governance practices will improve the overall effectiveness of credit risk management.

### **5.5.3 Theoretical Implications**

The findings of this study offer important implications for understanding credit risk management among automotive firms in Nairobi City County through the lenses of Information Asymmetry Theory, Resource Dependency Theory, and Agency Theory. Rather than merely affirming these theories, the study results enrich their application in the automotive sector.

The results strongly support the propositions of Information Asymmetry Theory, which posits that credit risk arises from gaps in information between lenders and borrowers. The study found that firm-specific factors such as firm age and internal credit practices significantly influence credit risk management outcomes. Older firms, likely having accumulated superior customer information systems and historical credit records, managed credit risk more effectively. This finding confirms that reducing information asymmetries through investments in data collection, customer profiling, and credit scoring technologies enhances firms' ability to make informed lending decisions. Thus, automotive firms are encouraged to prioritize information transparency, advanced credit analytics,

and structured borrower assessment frameworks to systematically minimize adverse selection and moral hazard risks in their credit portfolios.

The study's findings also align with Resource Dependency Theory, which emphasizes the reliance of firms on external and internal resources for survival and stability. Both industry-specific and macroeconomic determinants were found to have significant effects on credit risk management. Firms that effectively leveraged external resources such as partnerships with financial institutions, access to affordable credit lines, and industry alliances demonstrated stronger resilience to credit risks. Furthermore, larger firms, which inherently command more internal resources, exhibited better credit risk management practices. These results imply that for automotive firms in Kenya, strategic resource management is critical: building external networks, securing diverse financing options, and enhancing operational capacity are essential strategies for reducing credit exposure and navigating regulatory and market uncertainties.

The findings provide partial support for Agency Theory, particularly in highlighting the moderating role of corporate governance in credit risk management under macroeconomic conditions. While the study did not find a significant moderating effect of governance on the relationship between firm-specific or industry-specific determinants and CRM, it did reveal that strong corporate governance structures significantly moderated the relationship between macroeconomic factors and CRM outcomes. Specifically, during periods of economic volatility, firms with robust governance practices characterized by independent boards, performance-based management incentives, and transparent reporting were better equipped to manage credit risks. This reinforces Agency Theory's assertion that effective governance mechanisms align managerial behavior with organizational objectives, particularly under stressful economic environments. Therefore, automotive firms should reinforce governance structures not merely for compliance, but as a strategic risk management tool, particularly when external macroeconomic pressures increase.

## **5.6 Limitations of the Study**

The study suffered from three notable limitations which informed suggestions for further studies. Conceptually, the study limited itself to three aspects of determinants, Macro-economic determinants, firm specific factors, and industry specific factors. This may limit its applicability since there may be other determinants leaving a room for further studies. Methodologically, the study focused on

automotive firms in Nairobi City County, it may be difficult to generalize these findings to other firms in Kenya. Lastly, the study was based quantitative data which was collected using structured questionnaire, implying that qualitative sources such as open-ended statement and interviews were not considered.

### **5.7 Areas of Further Studies**

The research was constrained to evaluating the influence of determinants on credit risk management in Nairobi City County. This limitation may impact the extent to which the results may be applied and generalized to a broader context. Hence, the findings of this study indicated the need for doing additional research in other firms other than automobiles firms in Kenya

The research used quantitative data that was gathered by the administration of structured questionnaire. Hence, it is recommended that future research studies should include qualitative methodologies such as focus groups, open-ended surveys, and interviews, since these may contribute to the refinement of more conclusive findings through triangulation.

The study limited itself to three aspects of determinants, Macro-economic determinants, firm specific factors and firm specific factors. Further studies should focus on other determinants apart from these three.

## REFERENCES

- Ali, Y., Ilyas, M., Jabeen, M., & Gulzar, R. (2021). Impact Of Corporate Governance On Credit Risk Management: A Case Of Commercial Banks In Pakistan. *Webology*, 18(4), 1780-1796.
- Al-Magharem, A., Haat, M., Aishah Hashim, H., & Ismail, S. (2020). The Impact Of Ownership Structure And Macroeconomic Factors On Credit Risk: Evidence From Gulf cooperation Council (GCC) Countries. *Journal of Sustainability Science and Management*, 15(3), 134-148.
- Alrfai, M. M. S. (2022) Empirical Examination of Macro-Economic Factors On Credit Risk Determinant Of Commercial Banks In Jordan.
- ALrfai, M. M., Salleh, D. B., & Waemustafa, W. (2022). Empirical Examination of Credit Risk Determinant of Commercial Banks in Jordan. *Risks*, 10(4), 85.
- Asresa, T., Dargaso, T., & Bayih, M. (2023). Machine Learning-Based Credit Risk Assessment for Predicting Loan Defaulters in Ethiopian Banking industry.
- Assfaw, A. M. (2019). Firm-specific and macroeconomic determinants of banks liquidity: empirical investigation from Ethiopian private commercial banks.
- Barra, C., & Ruggiero, N. (2023). Bank-specific factors and credit risk: evidence from Italian banks in different local markets. *Journal of Financial Regulation and Compliance*, 31(3), 316-350.
- Baya, O. P. (2023). Budgeting, Risk Planning, Internal Control and Financial Performance of Kenyan Manufacturing Firms. *African Journal of Commercial Studies*, 3(3), 181-190.
- Bhatt, T. K., Ahmed, N., Iqbal, M. B., & Ullah, M. (2023). Examining the determinants of credit risk management and their relationship with the performance of commercial banks in Nepal. *Journal of risk and financial management*, 16(4), 235.
- Bryman, A., & Bell, E. (2015). *Business research methods (4th ed.)*. Oxford University Press.

- Carvalho, P. V., Curto, J. D., & Primor, R. (2022). Macroeconomic determinants of credit risk: Evidence from the Eurozone. *International Journal of Finance & Economics*, 27(2), 2054-2072.
- Castro, V. (2013). Macroeconomic determinants of the credit risk in the banking system: The case of the GIPSI. *Economic modelling*, 31, 672-683.
- Ceylan, I. E. (2021). The impact of firm-specific and macroeconomic factors on financial distress risk: A case study from Turkey. *Universal Journal of Accounting and Finance*, 9(3), 506-517.
- Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods (12th ed.)*. McGraw-Hill Education.
- Crespo-Herrera, L. A., Crossa, J., & Singh, R. P. (2021). *Design and Analysis of Plant Breeding Trials in the Genomic Era: Statistical Concepts and Methods*. Wiley.
- D'Amato, A., & Falivena, C. (2020). Corporate social responsibility and firm value: Do firm size and age matter? Empirical evidence from European listed companies. *Corporate Social Responsibility and Environmental Management*, 27(2), 909-924.
- Dibra, R., & Bezo, Y. (2021). Corporate Governance and Credit Risk in the Banking Sector. *Review of Economics and Finance*, 19, 347-350.
- DiMaggio, P. J., & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2), 147-160.
- Eriksson, P., & Huttunen, M. (2011). Understanding the dynamics of risk perception and acceptance. *Safety Science*, 49(7), 1118-1128.
- Fakhrunnas, F. (2019). The effect of macroeconomic and bank-specific variables to risk-taking of Islamic bank in Indonesia. *International Journal of Islamic Economics and Finance (IJIEF)*, 1(2), 165-186.
- Farag, K., Kassem, T., & Ramzy, Y. (2023). The Crucial Macroeconomic and Microeconomic Determinants of Retail and Corporate Credit Risks. *International Journal of Finance, Insurance and Risk Management*, 13(2), 30-41.
- Feng, C., Li, Z., & Peng, Z. (2021). The Impact of Banking Competition on Firm Credit Risk and Leverage. *SAGE Open*, 11(4), 21582440211061529.
- Finkelstein, S., & Hambrick, D. C. (1996). *Strategic Leadership: Top Executives and Their Effects on Organizations*. South-Western College Pub.

- Gachigo, J., Ondigo, H., Aduda, J., & Onsomu, Z. (2023). Intervening role of Risk Management on the relationship between Mergers and Acquisitions and Financial Performance of Commercial Banks in Kenya. *African Development Finance Journal*, 5(1), 71-96.
- Gissler, S., Ramcharan, R., & Yu, E. (2020). The effects of competition in consumer credit markets. *The Review of Financial Studies*, 33(11), 5378-5415.
- Gizem, B. A. Ş., & Mehmet, K. A. R. A. (2021). The effect of macroeconomic factors on non-performing loans: A time series analysis for Turkey. *İktisadi İdari ve Siyasal Araştırmalar Dergisi*, 6(16), 335-347.
- Habbal, A., Ali, M. K., & Abuzaraida, M. A. (2024). Artificial Intelligence Trust, Risk and Security Management (AI TRiSM): Frameworks, applications, challenges and future research directions. *Expert Systems with Applications*, 240, 122442.
- Hamid, Z., & Siddiqui, A. (2021). Effect of Firms Specific Factors on Probability of Default: A Case of Pakistani Non-Financial Sector. *Indian Journal of Economics and Business*, 20(2).
- Havidz, H. B. H., & Obeng-Amponsah, W. (2020). Banking Industry Specific and Macroeconomic Determinant of Credit Risk. *International Journal of Advanced Engineering Research and Science*, 7(1).
- Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource Dependence Theory: A Review. *Journal of Management*, 35(6), 1404–1427.
- Hung, P. T. M., & Quynh, P. N. B. (2017). The impact of competition on credit risk: the case of Vietnam commercial banks. *Tap chí Khoa học và Công nghệ-Đại học Đà Nẵng*, 48-52.

- Hung, P. T. M., & Quynh, P. N. B. (2017). The impact of competition on credit risk: the case of Vietnam commercial banks. *Tạp chí Khoa học và Công nghệ-Đại học Đà Nẵng*, 48-52.
- Hunjra, A. I., Jebabli, I., Thrikawala, S. S., Alawi, S. M., & Mehmood, R. (2024). How do corporate governance and corporate social responsibility affect credit risk?. *Research in International Business and Finance*, 67, 102139.
- Hurlbert, M., Krishnaswamy, J., Johnson, F. X., Rodríguez-Morales, J. E., & Zommers, Z. (2019). Risk management and decision making in relation to sustainable development.
- Jansen, M., Pierce, L., Snyder, J., & Nguyen, H. (2023). Product Sales Incentive Spillovers to the Lending Market: Evidence from Subprime Auto Loan Defaults. *Management Science*.
- Kadima, A. W. W. (2023). Effect Of Credit Risk Management on Financial Performance Of Selected Microfinance Institutions In Kenya.
- Kanapickienė, R., Keliuotytė-Staniulėnienė, G., Vasiliauskaitė, D., Špicas, R., Neifaltas, A., & Valukonis, M. (2023). Macroeconomic Factors of Consumer Loan Credit Risk in Central and Eastern European Countries. *Economies*, 11(4), 102.
- Kenya Motor Industry Association. (2024). List of registered motor vehicle dealers and assemblers in Kenya.
- Khan, N., Ramzan, M., Kousar, T., & Shafiq, M. A. (2023). Impact of Bank Specific Factors on Credit Risk: Evidence from Islamic and Conventional Banks of Pakistan. *Pakistan Journal of Humanities and Social Sciences*, 11(1), 580-592.
- Kharabsheh, B. (2019). Determinants of bank credit risk: Empirical evidence from Jordanian commercial banks. *Academy of Accounting and Financial Studies Journal*, 23(3), 1-12.
- Khumalo, S., Ferreira-Schenk, S., Van Rensburg, J. J., & Mokatsanyane, D. (2021). Evaluating the Credit Risk and Macroeconomic Interaction in South African Banks. *Acta Universitatis Danubius. OEconomica*, 17(5).
- Kinini, D. M. (2023). *Capital adequacy, income diversification, competition and liquidity creation of Commercial Banks in Kenya* (Doctoral dissertation).
- Kituku, M., & Oluoch, D. O. (2021). Effect Of Macroeconomic Variables On Repayment Of Bank Loans By Retail Borrowers In Kenya.
- Klee, E., Morse, A., & Shin, C. (2023). Auto Finance in the Electric Vehicle Transition. *Available at SSRN 4642783*.
- Koju, L., Koju, R., & Wang, S. (2020). Macroeconomic determinants of credit risks: evidence from high-income countries. *European Journal of Management and Business Economics*, 29(1), 41-53.

- Lambey, R., Tewal, B., Sondakh, J. J., & Manganta, M. (2021). The effect of profitability, firm size, equity ownership and firm age on firm value (leverage basis): Evidence from the Indonesian manufacturer companies. *Archives of Business Research*, 9(1).
- Li, X., Wang, Y., & Zhang, Q. (2020). Risk Transfer Mechanisms in Credit Risk Management: A Comparative Analysis of US and Chinese Banks. *Journal of Risk & Financial Management*, 13(10), 242. DOI: 10.3390/jrfm13100242
- Madbouly, A. (2020). Macroeconomic Determinants of Banks' Credit Risk: The Case of Bahrain. *Journal of Asian Business Strategy*, 10(2), 172.
- Marouf, F. Z., & Guellil, Z. (2017). The macroeconomic determinants of credit risk: The Algerian Banking System. In *Management International Conference, Italy*.
- Martín-Oliver, A., Ruano, S., & Salas-Fumás, V. (2020). How does bank competition affect credit risk? Evidence from loan-level data. *Economics Letters*, 196, 109524
- Mazayo, K., Agustina, S., & Asri, R. (2023). Application of Digital Technology Risk Management Models in Banking Institutions Reflecting The Digital Transformation of Indonesian Banking BLUEPRINT. *International Journal of Cyber and IT Service Management*, 3(2), 130-143.
- Michael, S. A. (2023). *The effect of corporate governance on credit risk management* (Doctoral dissertation, KNUST).
- Moussa, F. B. (2019). The influence of internal corporate governance on bank credit risk: An empirical analysis for Tunisia. *Global Business Review*, 20(3), 640-667.
- Mukherjee, K., Sinha, A., & Chattopadhyay, P. (2019). *Research Methodology: Methods and Techniques (3rd ed.)*. New Delhi: Springer.
- Müller, L., Schmidt, T., & Wagner, M. (2021). Assessing Credit Risk Management Strategies: Evidence from European Banks. *Journal of Banking & Finance*, 124, 106109. DOI: 10.1016/j.jbankfin.2020.106109
- Muslih, M., & Marbun, S. O. (2020). The effect of risk management, firm age, and firm size on the performance of banking companies registered in Indonesia stock exchange moderated by corporate governance and budget as control variable. *International Journal of Science and Society*, 2(4), 274-290.
- Muthoni, D. M., & Kinyua, G. M. (2020). Corporate reputation and firm performance: An empirical analysis of motor vehicle assemblers in Nairobi city county, Kenya. *Journal of Business and Economic Development*, 5(2), 73-81.

- Nadebu, P. C. (2023). *Effect of operating leverage on the relationship between liquidity management, credit risk and loan repayment among microfinance Banks, Kenya* (Doctoral dissertation, Maseno University).
- Naqvi, N. (2023). Economic crisis, global financial cycles and state control of finance: public development banking in Brazil and South Africa. *European Journal of International Relations*, 29(2), 283-318.
- Ndikubwimana, P., Abel, B., Mukamanzi, F., Twesige, D., & Byukusenge, L. (2023). Credit Risk Analysis and Microfinance Loan Quality in Rwanda: A Case Study of Cooperative COPEDU Ltd. *The University Journal*, 5(2), 99-120.
- Neto, A. R., & Candido, O. (2021). What does Google say about credit developments in Brazil?. *Studies in Nonlinear Dynamics & Econometrics*, 26(4), 499-527.
- Noomen, N., & Abbes, M. B. (2018). The Determinants of Credit Risk Management of Islamic Microfinance Institutions. *IUP Journal of Financial Risk Management*, 15(1).
- Nyamwaro, L. (2022). *Effect of Government Regulations on Credit Provision by Commercial Banks in Kenya* (Doctoral dissertation, University of Nairobi).
- Olajide, B. O., & Andrew, I. W. (2023). A Predictive Model for Car-Loan Repayment Credibility of Customers. *Asian Basic and Applied Research Journal*, 81-89.
- Olawale, L. S., Ilo, B. M., & Lawal, F. K. (2017). The effect of firm size on performance of firms in Nigeria. *Aestimatio: The IEB International Journal of Finance*, (15), 68-87.
- Permatasari, I. (2020). Does corporate governance affect bank risk management? Case study of Indonesian banks. *International Trade, Politics and Development*, 4(2), 127-139.
- Pfeffer, J., & Salancik, G. R. (2003). *The External Control of Organizations: A Resource Dependence Perspective*. Stanford Business Books.
- Puspitasari, D. M., Febrian, E., Anwar, M., Sudarsono, R., & Napitupulu, S. (2021). Determinants of default risks and risk management: evidence from rural banks in indonesia. *Journal of Asian Finance, Economics, and Business*, 8(8), 497-502.
- Raiter, O. (2021). Macro-Economic and Bank-Specific Determinants of Credit Risk in Commercial Banks. *Empirical Quests for Management Essences*, 1(1), 36-50.
- Rizqa, A. A., & Haryono, S. (2023). Credit Risk Determinants: Specific and Macroeconomic Factors of Islamic Banks. *Jurnal Ekonomi Dan Perbankan Syariah*, 11(2), 100-112.

- Rose, C. (2019). The relationship between corporate governance characteristics and credit risk exposure in banks: implications for financial regulation. *European Journal of Law and Economics*, 43, 167-194.
- Rujiin, C., & Sukirman, S. (2020). The Effect of Firm Size, Leverage, Profitability, Ownership Structure, and Firm Age on Enterprise Risk Management Disclosures. *Accounting Analysis Journal*, 9(2), 81-87.
- Sadaa, A. M., Ganesan, Y., Yet, C. E., & Alkhazaleh, Q. (2023). The Impact of Corporate Governance Practices on Non-Performing Loans in Iraqi Banks; The Moderating Effect of Concentrated Ownership. *J. Public Adm. Gov.*, 13(1).
- Saleem, M., & Masood, O. (2023). Higher Interest Rate & Credit Risk Management: Insights for Pakistan's Banking Sector from Us Silicon Valley Bank. *iRASD Journal of Economics*, 5(4), 966-983.
- Santos, A. B., & Oliveira, L. M. (2020). Credit Risk Management Practices and Loan Performance: Evidence from Emerging Markets. *Emerging Markets Review*, 42, 100669. DOI: 10.1016/j.ememar.2019.100669

- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students (6th ed.)*. Pearson Education Limited.
- Scott, W. R. (2001). *Institutions and Organizations: Ideas, Interests, and Identities*. SAGE Publications.
- Sede, I. P., Abiloro, T. O., & Ehinola, E. H. (2023). Macro-Economics Determinants Of Credit Risk In Nigerian Banking Sector. *African Journal of Business and Economic Development*, 3(9), 44-62.
- Shaheen, F. I., Ameer Uddin Khan, N., Baig, M. A., & Muzammil, M. (2024). Determinant of credit risk of Islamic banks in Pakistan. *Future Business Journal*, 10(1), 1-11.
- Sharma, H., Andhalkar, A., Ajao, O., & Ogunleye, B. (2024). Analysing the Influence of Macroeconomic Factors on Credit Risk in the UK Banking Sector. *Analytics*, 3(1), 63-83.
- Shokoohyar, S., Cross, J., Sinclair, A., Evert, C., & Gorizi, A. J. (2023). *Auto Repossession Agencies: Why Are They Leaving the Industry and What Can They Do to Remain in Business*. SAGE Publications: SAGE Business Cases Originals.
- Svrtinov, V., Sofijanov, E., Nikolovski, K., & Miteva, E. (2019). Determinants of Bank Credit Risk: Empirical Evidence for Commercial Banks from Republic of North Macedonia. *Journal of Economics*, 4(2), 38-45.
- TAŞ, C. (2023). *Comparison of Machine Learning and Standard Credit Risk Models' Performances in Credit Risk Scoring of Buy Now Pay Later Customers* (Master's thesis, Middle East Technical University).
- Tian, P. (2022). Analysis of the Impact of Macroeconomic Factors on Non-Performing Loans of Commercial Banks. In *2022 4th International Conference on Economic Management and Cultural Industry (ICEMCI 2022)* (pp. 75-83). Atlantis Press.
- Twum, A. K., ZhongMing, T., Agyemang, A. O., Ayamba, E. C., & Chibsah, R. (2021). The impact of internal and external factors of credit risk on businesses: An empirical study of Chinese commercial banks. *Journal of Corporate Accounting & Finance*, 32(1), 115-128.
- Williamson, O. E. (2008). *Transaction Cost Economics: An Introduction*. Economics Books.
- Xie, X., Shi, X., Gu, J., & Xu, X. (2023). Examining the Contagion Effect of Credit Risk in a Supply Chain under Trade Credit and Bank Loan Offering. *Omega*, 115, 102751.
- Yayuningsih, S., & Sulistyoningsih, M. A. (2021). *The Effect of Competition between Islamic and Conventional Banks on Credit Risk and Liquidity Risk: Cross Countries Analysis* (pp. 245-294). OJK Working Paper Series 04.
- Zawadzki, A. (2023). Macroeconomic Determinants of Credit Risk on the Example of Non-performing Loans. *Central European Economic Journal*, 10(57), 275-286.

- Handajani, L., Akram, A., & Sokarina, A. (2024). Credit Risk Determinants of Commercial Banking. *Jurnal Aplikasi Akuntansi*, 8(2), 468-481.
- Shaheen, F. I., Ameer Uddin Khan, N., Baig, M. A., & Muzammil, M. (2024). Determinant of credit risk of Islamic banks in Pakistan. *Future Business Journal*, 10(1), 4.
- Antony, T. M., & Suresh, G. (2023). Determinants of credit risk: Empirical evidence from Indian commercial banks. *Banks and Bank Systems*, 18(2), 88-100.
- Tehulu, T. A. (2016). Determinant factors in credit risk management of microfinance institutions in Ethiopia. *Journal of Policy and Development Studies*, 289(3784), 1-12.
- Bhatt, T. K., Ahmed, N., Iqbal, M. B., & Ullah, M. (2023). Examining the determinants of credit risk management and their relationship with the credit risk management of commercial banks in Nepal. *Journal of risk and financial management*, 16(4), 235.
- Priyadi, U., Utami, K. D. S., Muhammad, R., & Nugraheni, P. (2021). Determinants of credit risk of Indonesian Shari'ah rural banks. *ISRA International Journal of Islamic Finance*, 13(3), 284-301.
- Kanapickienė, R., Keliuotytė-Staniulėnienė, G., Teresienė, D., Špicas, R., & Neifaltas, A. (2022). Macroeconomic determinants of credit risk: evidence on the impact on consumer credit in central and Eastern European countries. *Sustainability*, 14(20), 13219.
- Gwoździewicz, S., & Prokopowicz, D. (2017). Determinants of credit risk management in the context of the development of the derivatives market and the cyclical conjuncture economic processes [in] *International Journal of Small and Medium Enterprises and Business Sustainability. Center for Industry, SME and Business Competition Studies, University of Trisakti, Jakarta-Indonesia*, 2(3).

## **APPENDIX I: LIST OF VEHICLE DEALERS AND ASSEMBLERS IN KENYA**

1. Al-Shujah Motors Ltd. (<https://yellow.co.ke/al-shujah-motors-ltd-nairobi>)
2. Associated Motors Ltd
3. Auto Docs Ltd.
4. Auto Industries - Assembles and distributes Mahindra vehicles.
5. Automotive Solutions Ltd
6. Bavaria Auto Ltd
7. Bethel Motors East Africa LTD
8. Car Soko Limited
9. Car Soko Limited (<https://yellow.co.ke/car-soko-limited-nairobi>)
10. Central Motor Service Ltd
11. Clyde Motors Company Ltd. (<https://yellow.co.ke/clyde-motors-company-ltd-nairobi-2>)
12. Concorde Motors Ltd. (<https://www.concordemotorsmsa.co.ke/>)
13. Cooper Motor Corporation (CMC) - Distributes Ford, Jaguar, and Land Rover vehicles.
14. Crater Automobiles
15. Croton Motors
16. Crystal Motors (K) Ltd
17. Cyber Trace Ltd
18. Drivers Universe Motor Company Ltd
19. DT Dobie Kenya - Distributes Mercedes-Benz, Volkswagen, and Jeep vehicles.
20. ESR Executive (Executive Super Rides Ltd)
21. Foton East Africa - Assembles and distributes Foton vehicles.
22. General Motors East Africa (GMEA) - Distributes Chevrolet and Isuzu vehicles.
23. Gigi Motors Ltd. (<https://yellow.co.ke/gigi-motors-ltd-nairobi>)
24. Hino Kenya - Distributes Hino trucks and buses.
25. Hyundai Kenya - Distributes Hyundai vehicles.
26. Inchcape Kenya LTD
27. Isuzu East Africa - Specializes in the assembly and distribution of Isuzu vehicles.
28. Ivory motors
29. Joniz Wheelz Enterprises Ltd. (<https://www.jonizwheelz.com/>)
30. Karen Auto Mart Ltd. (<https://www.facebook.com/karenautogarage/>)
31. Kenya Vehicle Manufacturers Ltd. (<https://kvm.co.ke/>)
32. Khushi Motors
33. Land Rover (<https://www.landroverkenya.com/our-vehicles>)
34. Lota Automobiles Ltd. (<https://www.lotamotors.com/>)
35. Malik Cars Link (K) Ltd. (<https://yellow.co.ke/businesses/malik-cars-link-k-ltd>)
36. Maridady Motors Ltd. (<https://www.maridadymotors.com/contact-us>)
37. Milestone Cars Asv

38. Mobius Motors Ltd. (<https://mobiusmotors.com/>)
39. MSPV armored vehicles
40. Nazish Motors Ltd. (<https://yellow.co.ke/nazish-motors-ltd-nairobi>)
41. Nelion Trading Ltd
42. RMA Kenya - Distributes Ford, Jaguar, Land Rover, and Mahindra vehicles.
43. Ryce East Africa Ltd.
44. Sakai Trading Ltd. (<https://www.facebook.com/sakaitradinglimited/>)
45. Sean Garstin Motors (<https://seangarstinmotors.com/car-list/>)
46. Simba Corporation - Distributes various vehicle brands including Mitsubishi, Mahindra, and Fuso.
47. Stantech Motors Ltd- New Motor Vehicle Sales Division
48. Subaru Kenya - Distributes Subaru vehicles.
49. Tata Africa Holdings - Distributes Tata vehicles.
50. Toyota Kenya - Assembles and distributes Toyota vehicles in Kenya.
51. Volkswagen Kenya - Assembles and distributes Volkswagen vehicles.

## APPENDIX II: QUESTIONNAIRE

### RESEARCH QUESTIONNAIRE

#### Section A: Background Information

##### 1. Highest Level of Education attained:

Secondary  Degree

Diploma  Postgraduate

##### 2. Gender:

Female  Male

##### 3. Age in years:

Below 25 years  25-30 years  31-40 years

41-45 years  Above 45 years

4. Period of service in the current position .....

**Please use appropriate mark (tick) to the extent to which you agree or disagree the following questionnaire.**

#### Section B: Determinants of Credit Risk management

To what extent do you agree with the statements below about determinants of credit risk Management? Use a scale of 1 to 5 where, 5 strongly Agree, 4 Agree, 3 – Neutral, 2 - Disagree, 1 - Strongly Disagree

	<b>Firm Specific Factors</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1	The size and financial resources of an automotive firm significantly influence the implementation of effective credit risk assessment and monitoring techniques.					
2	A larger automotive firm is better positioned to invest in advanced credit scoring models that improve credit risk analysis and loan approval decisions.					

3	An established automotive firm with a history of managing credit risk is more capable of offering competitive financing terms while minimizing default risk.					
4	The operational experience of an automotive firm enhances the design and execution of credit risk mitigation strategies such as collateral management and customer profiling.					
5	The use of technology, such as automated credit scoring tools and data analytics, enhances the effectiveness of credit risk management practices in an automotive firm.					
6	Automated decision engines and real-time data analysis improve the speed and accuracy of credit decisions in automotive firms.					
7	The experience and qualifications of staff involved in credit risk management significantly impact the effectiveness of risk identification and mitigation techniques in automotive firms.					
8	Well-trained staff with knowledge in credit analysis, risk assessment, and regulatory compliance contribute to the successful implementation of credit risk control measures in automotive firms.					
	<b>Industry Specific Factors</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1	We assess the foreign exchange risk associated with borrowers operating in volatile currency environments					
2	We offer hedging products or strategies to mitigate the risk of currency fluctuations for our borrowers.					
3	We consider the competitive landscape of a borrower's industry and how it might impact their financial credit risk management and repayment ability					
4	We analyse industry trends and the threat of new entrants when assessing the creditworthiness of borrowers within a particular sector.					
5	We consider the potential impact of government intervention or policy shifts on the creditworthiness of borrowers within regulated industries.					
6	We monitor regulatory changes relevant to specific industries and how they might affect a borrower's operating environment and credit risk profile					
	<b>Macro-economic Determinants</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1	Our credit risk assessments consider potential changes in inflation and how they might affect borrower repayment capacity.					
2	We adjust our credit scoring models or underwriting criteria to account for rising inflation and its impact on borrower debt burden.					

3	Our organization considers the potential impact of interest rate fluctuations on borrowers' ability to service their debts.					
4	We actively manage our credit portfolio's interest rate sensitivity to mitigate risk during periods of rising or falling interest rates.					
5	We monitor changes in GDP growth and their potential effect on overall economic activity and credit delinquencies.					
6	We incorporate economic growth forecasts into our credit risk models to assess the broader economic environment for borrowers.					

To what extent do you agree with the statements below about corporate governance? Use a scale of 1 to 5 where, 5 strongly Agree, 4 Agree, 3 – Neutral, 2 - Disagree, 1 - Strongly Disagree

	<b>Corporate Governance</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1	Senior management is held accountable for setting and maintaining effective credit risk management policies.					
2	Management regularly reviews and updates credit risk strategies based on market trends and internal credit risk management					
3	The credit risk management team has sufficient autonomy to make independent assessments of loan applications and credit risks					
4	Credit risk decisions are made based on objective criteria and risk analysis, free from undue influence from other departments.					
5	Credit risk policies and procedures are clearly documented and communicated throughout the organization					
6	Employees have access to comprehensive information about the organization's credit risk management framework.					

**Part E: Credit Risk Management**

- To what extent do you agree with the following statements about credit risk management?  
Use a scale of 1 to 5 where, 5 Strongly Agree, 4 Agree, 3 – Neutral, 2 - Disagree, 1- Strongly Disagree

	<b>Credit Risk Management</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1	We actively seek to terminate credit risk exposure through stringent risk assessment and client evaluation processes.					

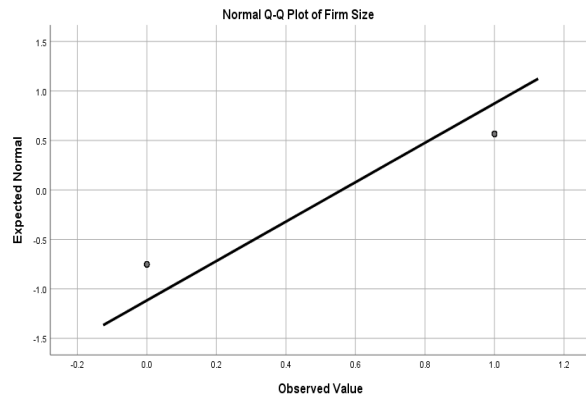
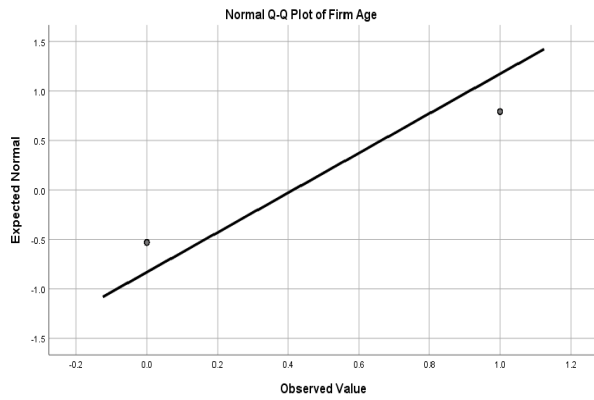
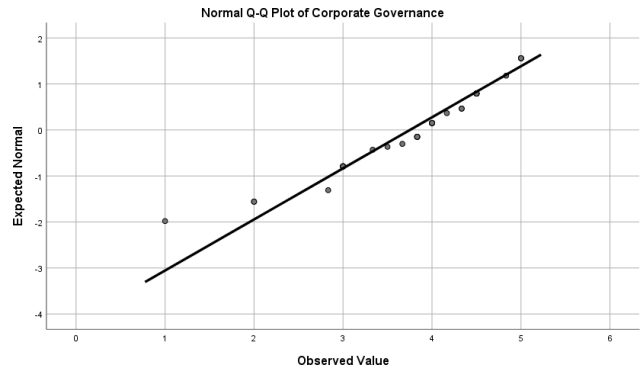
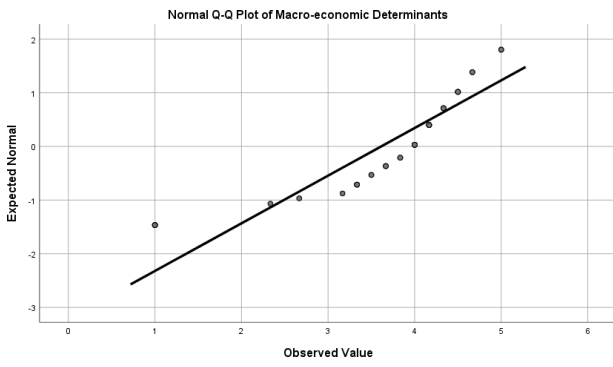
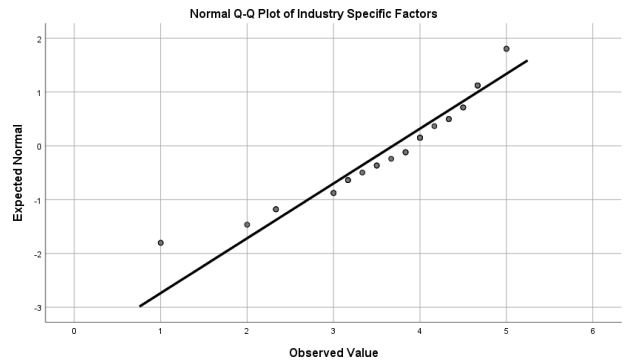
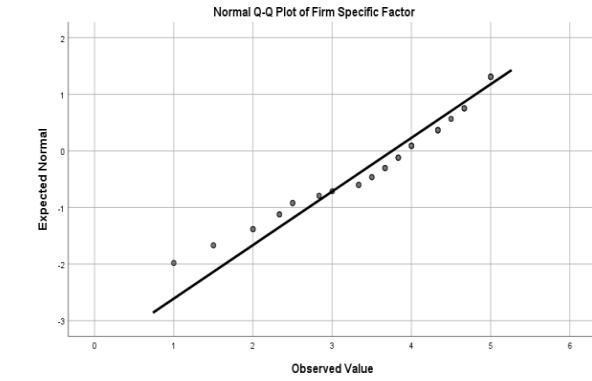
2	We prioritize terminating credit risk by avoiding high-risk lending practices and minimizing exposure to vulnerable markets					
3	We utilize credit insurance or loan guarantees to transfer some of the credit risk associated with car loans to a third party					
4	We explore securitization of car loans, where the credit risk is transferred to investors in the secondary market					
5	We adjust credit approval criteria or loan terms based on changes in market conditions or internal risk tolerance levels.					
6	We monitor credit risk exposure regularly and take corrective actions, such as tightening lending practices, when risk tolerance thresholds are approached					
7	Our firm's commitment to risk treatment is reflected in our proactive approach to identifying, assessing, and mitigating credit risks across all business operations.					
8	The treatment of credit risk is an integral part of our risk management framework, encompassing both preventive and corrective actions to manage risk exposures.					

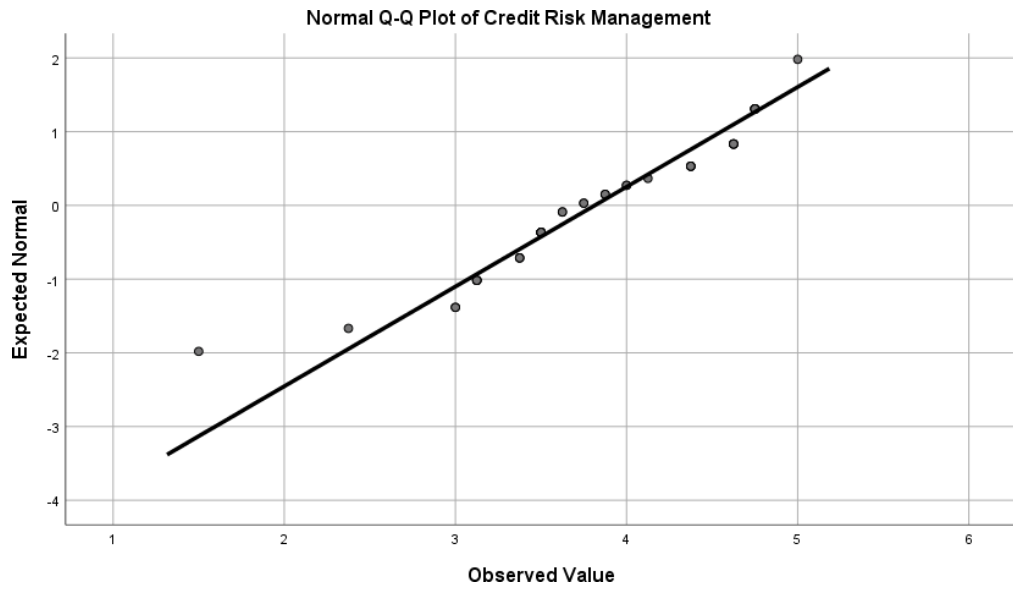
**Part F: Control Variables**

<b>Control Variables</b>	
Number of Employees	
Total Assets	
Firm Age Years Since Inception	

**THANK YOU FOR YOUR INPUT AND COOPERATION!!!**

# APPENDIX III: NORMALITY TEST







REPUBLIC OF KENYA



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

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Date of Issue: 15/April/2025

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Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

**The National Commission for Science, Technology and Innovation**, hereafter referred to as the Commission, was established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

**CONDITIONS OF THE RESEARCH LICENSE**

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to.
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
  - i. Endanger national security
  - ii. Adversely affect the lives of Kenyans
  - iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
  - iv. Result in exploitation of intellectual property rights of communities in Kenya
  - v. Adversely affect the environment
  - vi. Adversely affect the rights of communities
  - vii. Endanger public safety and national cohesion
  - viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. Neither the license nor any rights thereunder are transferable.
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13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology and  
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Telephone: 020 4007000, 0713788787, 0735404245  
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17<sup>th</sup> April 2025

**Tom Mwisu**

150220

[tom.mwisu@strathmore.edu](mailto:tom.mwisu@strathmore.edu)

Dear Tom,

**RE: Determinants of Credit Risk Management Among Automotive Companies in Nairobi City County: Moderated by Corporate Governance**

This is to inform you that the Office of Graduate Studies on 17<sup>th</sup> April 2025 received your acknowledgement of breach in ethical processes given that you have already collected/analysed data and proceeded to write your Dissertation/Thesis prior to obtaining Ethical clearance. Consequently, it was noted that The Strathmore University Institutional Scientific and Ethical Review Committee (SU-ISERC) cannot review your study since you have already collected data and written the Thesis. The scientific & ethical review/approval process is ONLY done before the commencement of any experiments, implementation or any collection of data (primary or secondary-including desktop review).

This is a letter for you to proceed with the next steps of your academic requirements.

Please be advised, that in future, all research proposals should be submitted to the SU-ISERC through the RHInnO Ethics platform: <https://strathmoreuniversity.rhinno.net/login>

**Disclaimer:** 1) This is not in any way an ethical approval letter. 2) Should there be any legal implications/actions emanating from the research in terms of any ethical violations, you will be personally liable.

Yours sincerely,



Prof. Bernard Shibwabo

**Director of Graduate Studies**

# Tom Mwisos Project May 2025-Masters

Final Audit Report

2025-05-06

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