THE EFFECT OF BANK SPECIFIC FACTORS ON LENDING BY COMMERCIAL BANKS IN KENYA

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DECLARATION

I declare that this is my own original work and has not been presented for an award to any institution for any award

Signed: _____   Date: ___26TH NOVEMBER, 2021_

SOPHIE ANN ACHIENG   **D61/21362/2019**

This project has been submitted for examination with my approval as the University Supervisor.

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ACKNOWLEDGEMENT

DEDICATION

This research project is dedicated to God Almighty, my strong pillar, my source of inspiration, knowledge, wisdom, favor, mercy exceeding grace and understanding. He has been the source of my strength throughout this program. I also dedicate this work to my two daughters, Vicky and Tumaini who have not left by my side by ensuring that our mission and vision as a family is accomplished in this turnaround year, 2021. My love for you can never be quantified. May God's light keep shining upon you all through your lives.

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LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
CAR	Capital Adequacy Ratio
CBK	Central Bank of Kenya
FASB	Financial Accounting Standards Board
GDP	Gross Domestic Product
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
IRC	Interest Rate Capping
KCB	Kenya Commercial Bank
MFI	Micro Finance Institution
MSEs	Micro and Small Enterprises
NPL	Non-Performing Loans
NSE	Nairobi Securities Exchange
ROA	Return on Assets
SEC	Securities and Exchange Commission
SMEs	Small and Medium Enterprises
VIF	Variance Inflation Factors

ABSTRACT

A number of factors usually influence the manner in which commercial banks lend to its clients including credit risk, interest rates, liquidity, bank size and deposit volume are among these determinants. Borrower attributes such as gender, age, wealth, experience, and credit history, risk profile, income and business experience, and loan features such as amount to be borrowed, duration for loan to mature, rate of interest and collateral given are among the other considerations. This research purposed to find the effect of bank specific factors on lending among commercial banks in Kenya. The independent variables for this study were liquidity, interest rates, capital adequacy, credit risk and bank size. The study was descriptive in nature and targeted Kenyan banks. There were 42 banks in Kenya as at 2020 but only 37 provided complete data. Data as from 2016 to 2020 for all the commercial banks which was contained in the audited financial statement was collected from CBK's financial publication from 2016 to 2020. Regression and correlation analysis were used to test the study hypotheses by establishing the relationship between bank specific factors and lending. The study found that bank size (β=0.828, p=0.000) had a positively and significant effect on lending among banks in Kenya, interest rates (β=-0.171, p=0.000) and credit risk β=-0.405, p=0.000) had a significant negative effect on lending while liquidity and capital adequacy were not statistically significant. The results also indicated R^2 of 0.95.9 which implied that the selected independent variables contributed 95.9% to variations in lending. The study recommends the need for practitioners and policy makers in the banking sector to focus on interest rates, credit risk and bank size as these three are significant determiners of lending levels. Managers and directors of commercial banks should also work on improving their asset base and reducing their credit risk in a bid to enhance their lending ability and to remain competitive in the ever changing environment.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Loans and advances form a major part of the earning asset portfolio of banks. As such a rise in lending by banks is expected to positively impact the balance sheet of banks and ultimately improve their financial performance via increased interest income on the loans and advances. Commercial banks act as financial intermediaries dominating the financial institutions sector by performing various significant roles. Provision of credit is the main role of commercial banks across the world; however it has been proven historically that commercial banks ration credit even to creditworthy borrowers. In Kenya, only 2.5 percent of Micro and Small Enterprises (MSEs) get loans from commercial banks (International Centre for Economic Growth, 2020).

Often times, it is proved that a bank's lending is dictated by some basic firm specific factors such as liquidity, capital adequacy, bank size and management efficiency (Fofack, 2005). According to Dang (2011), bank capital, profitability, composition in credit portfolio, risk levels, information technology levels, management quality and ownership along with interest rate policy are bank specific factors that influence the lending of banks.

Basic firm-specific characteristics such as bank size, liquidity, capital sufficiency and managerial efficiency dictates the way of lending (Fofack, 2005). Profitability, bank capital, loan portfolio composition, information technology levels, risk levels, management quality and ownership, as well as interest rate policy, are all bank specific factors that impact bank lending, according to Dang (2011).

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The three main theories were discussed in this research including: liquidity preference theory, loanable funds theory and information asymmetry theory, all of which aim to explain lending capacity. The liquidity preference theory suggests that reasons for holding cash may be for transaction purposes, precautionary or for speculation. Hence, banks face challenge on how to balance between transaction motive for return purposes and precautionary motives for liquidity purposes, therefore bolstering its returns (Dafermos, 2009). Information asymmetry theoretically details the inability of banks to differentiate borrowers who are risky from those who are safe where it has inadequate information about the loan customers (Pagano & Jappelli, 1993). The loanable funds theory posits that allocation of interest rates depends on the market demand and supply of credit (Oost, 2002).

1.1.1 Bank Specific Factors

The characteristics that are distinctive to banks are known as bank specific factors. Almajali (2012) terms them as micro factors since they are not experienced by the all banks in a particular nation. These factors are those that can be regulated by the banks themselves. Most of the time they are resource-based in nature and exist as a result of management discretion. All organizations are run with the aim of achieving goals set by the management is in charge of making choices with the purpose of accomplishing organizational objectives. Bank specific characteristics, according to Kusa and Ongore (2013), include liquidity, bank size, capital adequacy, credit risk, and interest rate.

Sufi and Qaisar (2015) assert that credit risk bears a significant impact on a bank's lending in comparison to other type of risks in the industry because since it's a direct threat to solvency. Credit risk can be determined by ration of non performing loans

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(NPL). The level at which firms are capable of honouring their short term obligations as and when they fall due is known as the liquidity. It arises as a capability of managers to meet their commitment that fall due to creditors without having to liquidate financial assets (Adam & Buckle, 2003). Shareholders facilitates banking operations by contributing capital since it is a guarantee in case of any adverse eventuality which is often given by the proportion of equity capital to risky weighted assets (Nyanga, 2012).

Firm's size is gauged by accumulation of assets. It may be argued that the larger a firm's assets are, the greater its ability to take on a large number of projects with higher returns than to small organizations with less assets. This means that larger banks can lend more money (Amato & Burson, 2007). According to Liargovas and Skandalis (2008), the book value of a bank's total assets is frequently employed to determine its size. Another bank-specific aspect is interest rates, which are frequently determined by the average bank lending rate.

1.1.2 Bank Lending

Lending represents the entire loans total value that a financial institution is capable to advance without violating the available prudential regulations (Barnor, 2014). It can also be described as the loans owed to a lender, and it is typically treated as an asset on the balance sheet of the lender (Khan & Sattar, 2014). Credits are one of the main yielding assets a bank can incorporate to its asset report, and they account for the majority of profits (Kithinji, 2010). Hamisu (2011) points out that credit formation poses significant risks to both the money lender as well as the borrower. The risk of a counterparty failing to honor the agreement on the appropriate date or at a stated time will put the bank's business in jeopardy and prevent it from running smoothly.

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Banks assets comprises of total advances and loans. As a result, increasing lending to the public by banks immediately implies increased balance sheet growth and, hence, bolstering financial performance due to increased interest revenue on the bank's loans and advances. Increased bank lending to the public, on the other hand, suggests that the public benefits from increased access to loans and advances, which raises their own household spending. As a result, bank size, amount of nonperforming loans, the quantity of demand deposits, and level of bank capitalization all have an impact on the resources available for public lending (Loderer, 2009).

The loan levels in a bank is not measured in any specific way. However, one may assess if the firm bank loan levels are growing or not by looking at the changes in the financial statements, which include the financial position statement and comprehensive income statement. Increase in total assets, as measured by increases in loans, advances, and interest revenue, is one of the primary measures used to determine lending (Loderer, 2009). The loan book value was employed by the researcher to measure lending.

1.1.3 Bank Specific Factors and Lending

In theory, a number of factors including bank size, interest rates, deposit volume, liquidity and credit risk are said to impact banks' lending. Borrower attributes like wealth, gender, risk profile, income, credit history, age, and experience in business in addition to loan requirements like maturity, available collateral, loan amount and interest rate are among the other considerations. Lapar and Graham (1988) categorized the lending of banks against the demand for loans by firm into three main phases which include the screening, evaluation phase and quantity rationing phase. Based on the information obtained, a decision is made by the loan officer on whether

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to grant the loan or decline depending on the profitability to the bank. The bank, at the quantity rationing stage, determines the best loan size at a certain interest rate.

Low interest rates, according to Diamond and Rajan (2006), lower the cost of borrowing, resulting in increased investment and consumer durables purchases. Banks may also loosen lending policies if they expect economic activity to improve, enhancing firms' and families' purchasing power. Low interest rates may encourage consumers to invest in stocks, therefore increasing their financial holdings. This might result in higher consumer spending, making investment projects more appealing to businesses. The fact that banks react to changes in monetary policy in different ways is the key source of concern for the empirical analysis. Commercial banks' various reactions are a result of their differing balance sheet dynamics. Other determinants, such as liquidity levels and bank size, have a key influence in determining bank lending operations notwithstanding changes in interest rate policy (Bolton & Freixas, 2006).

Capital sufficiency has a direct impact on levels of a bank's lending since it determines the capacity of a bank in expanding to risky regions. Due to the capacity to absorb losses and decrease risk exposure, the greater the CAR, the lower the risk and the better the profitability (Kamande, 2017). Overreliance on the CAR, on the other hand, may diminish bank profitability by lowering the need for deposits and other less expensive sources of capital, resulting in low level of lending. As a result, banks must guarantee that their portfolio of these assets is of high quality, as this dictates their levels of lending (Dang, 2011).

1.1.4 Commercial Banks in Kenya

Deposit acceptance, providing credit, money remittances, as well as other financial services comprise the activities taken by commercial banking industry. They play a key part in the financial sector, bolstring the economy's savings mobilization as well as provision of credit. The banking sector, as per the CBK (2020), consists of the CBK as the regulatory body, one mortgage finance agency, as well as 42 commercial banks. Thirty of the Kenya's 42 commercial banks are operated by locals, while the remaining 12 are owned by foreigners. Just 11 of the 42 commercial banks already operating in Kenya's banking sector are listed at Nairobi Securities Exchange (NSE).

The CBK requires financial institutions to follow the regulations outlined in the CBK circular in order to encourage solvency, proper functioning of financial systems, and liquidity. The key goal of the CBK guidelines and regulations is to reduce borrower risk, reduce systematic risk, protection of banking secrecy, as well as protect banks from negative activities such as money laundering and terrorism financing, among other things. According to CBK, there are four key guidelines and regulations that govern and regulate the operations of banks: Guidelines for risk control, prudential guidelines, guidelines for incidental business practices, and guidelines for non-operating holding companies. Banks' loan to deposit ratio in Kenya averaged 82.04 percent from 1971 until 2021, reaching an all-time high of 92.28 percent in April of 1994 and a record low of 64.73 percent in January of 1972 (CBK, 2021).

1.2 Research Problem

Theoretically, a number of factors influence the lending of banks including credit risk, interest rates, bank size, deposits volume and liquidity. Others are age, credit history, size of the firm, collateral offered and risk profile (Mole & Namusonge, 2016).

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Athanasoglou, Brissimis and Delis (2005) classify factors that influence a bank's lending as either emanating from inside or outside the bank. The factors confined within the organization differ from bank to bank, and each one impacts the amount of loan to issue such as deposit volume, liquidity, asset quality, capital adequacy are some of the characteristics that arise as a result of managerial actions. Inflation, interest rates, exchange rate volatility, money supply and economic growth are just a few examples of non-bank variables.

Following the CBK's review of commercial bank regulations in 2013, three main commercial banks in Kenya were under liquidation and receivership by the CBK in 2015-2016 as a result of capital deficits, fraud, and financial crisis. Dubai Bank, Imperial Bank and Chase Bank were among the banks involved. This clearly demonstrated that, despite the CBK's review of the regulations in 2013, which was meant to resolve issues related to performance and financial stability of commercial banks in Kenya, some have persistently encountered challenges with lending capacity (CBK, 2013). Contrary, some banks, such as the Equity Bank, KCB and Co-operative Bank have continued to report improved lending (CBK, 2020).

A number of research have been pursued on international level. Abdirashid (2017) found that quality of management does affect the lending of banks in Tunisia. This was centered on only one variable leaving a gap on other determinants of banks' lending. Agbeja, Adelakun and Olufemi (2015) who studied capital adequacy(CA) and lending of commercial banks in Nigeria found a positive association between bank lending and capital adequacy. Findings showed that higher levels of equity increased the chances of the banks to report higher lending. This study did not address other firm specific factors that can influence lending.

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Locally, most studies conducted have focused on individual determinants of lending. Ngure (2018) focused on the influence of Interest Rate Capping (IRC) on lending among microfinance banks in Kenya and concluded that IRC reduced lending. Kimutai and Jagongo (2013) sought to examine the factors influencing credit rationing by banks in Kenya. It was determined from the study that three factors namely loan characteristics, observable characteristics and firm characteristics influence credit rationing. The study unlike the current study did not focus on lending. As a consequence of the foregoing, it is clear that studies on lending have mostly focused on individual factors. Further the available studies have not investigated the influence of bank specific factors on lending as majority has focused on financial performance which is a different concept. The current study intended to bridge this research gap by answering the research question; what is the effect of bank specific factors on lending of commercial banks in Kenya?

1.3 Research Objective

To determine the effect of bank specific factors on the lending of commercial banks in Kenya

The specific objectives were;

i. To establish the effect of liquidity on lending of commercial banks in Kenya

ii. To assess the effect of interest rate on lending of commercial banks in Kenya

iii. To assess the effect of credit risk on lending of commercial banks in Kenya

iv. To establish the effect of capital adequacy on lending of commercial banks in Kenya

v. To determine the effect of bank size on lending of commercial banks in Kenya

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1.4 Value of the Study

The research outcomes will aid in the development of theories relating to bank specific factors and lending. Furthermore, the research findings are important for prospective researchers because they can be employed as reference point. Researchers and other scholars may regard the findings useful in research gaps identification on the study's related topics, and also in reviewing the empirical literature to develop new research areas.

The research will guide bank management to generate data that may be of use to a variety of stakeholders in banking sector, including regulatory authorities, bank management, as well as researchers studying banking industry. The report will direct commercial banks management in determining how bank specific factors can be useful in their respective banks to boost lending capacity.

These research findings will also be important to the government as well as other policymakers in formulating policies and procedures that will guide commercial banks and other banks in the sector to follow bank specific factors that may bolster their efficiency, which will contribute to the sector's success.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section provides an overview of the hypotheses that this research is founded on. This chapter also evaluated previous empirical work on this topic and other connected topics. A conceptual framework demonstrating the predicted theoretical link between the variables under consideration will also be addressed, as well as the factors of lending.

2.2 Theoretical Framework

A review of the relevant theories is presented in this section that explains how bank specific factors relate to lending. The theories reviewed are loanable funds theory of interest rates, the theory adverse selection and the liquidity preference theory.

2.2.1 Loanable Funds Theory of Interest Rates

This theory was developed by Fry (1995) the loanable funds theory assumes that interest rates are generally determined by two market forces: loanable funds supply and credit demand. This theory is more concerned with the determination of interest rates and the explanation of long-term interest rates.

The loanable fund is the money that investors and other economic organizations have set aside to lend to potential borrowers. It explains present loan rates of interest by using market dynamics of demand and supply. The supply of loanable capital comes from businesses, governments, and people that prefer to save rather than spend in order to invest. Individuals and corporations seeking to finance their operations and

investments create a demand for loanable funds. As a result, the demand for loanable funds is created by borrowers' decision to finance their investments through the acquisition of credit facilities (Rocha, 1986).

According to theory, the spread of interest rates is determined by market forces of demand and supply of loanable funds. The loanable funds hypothesis implies the presence of a perfect market in which neither the borrower nor the lender can decide the assets' pricing. It also presupposes that funds in the marketplace are free to move around. The theory is important to the study because it explains how interest rates are calculated and, more importantly, how they relate to loan volumes.

2.2.2 Information Asymmetry Theory

Akerlof (1970), Spence (1973), and Stiglitz (1976) proposed information asymmetry, and they were awarded the Nobel Memorial Prize in Economics in 2001 for their studies of markets with asymmetric information (Ledyard, 2008). When it comes to making judgments and transactions, asymmetric information indicates that one side has more or better knowledge than the other. The inaccuracy of the information creates a power imbalance. When negotiating a wage, for example, one will not know the highest amount a possible employer is prepared to pay, and the potential employer will not know the least amount one is ready to take. For smart economic judgments, accurate data is critical. When there is an imbalance of information in a market, it can lead to market failure (Schrand, 2007).

The theory of information asymmetry was employed in this study to better understand the impact of credit risk on commercial bank lending. Since commercial banks are financial intermediaries, they run the risk of making loans to clients which may not repaid due to moral hazard on the borrower's behalf and adverse selection on the commercial bank's part. Credit risk, according to the research, affects bank's lending, which in turn influences its overall financial performance.

2.2.3 Liquidity Preference Theory

Keynes (1936) developed this hypothesis, which lay the groundwork for cash hoarding. In this theory, Keynes contends that leaving all other circumstances constant, investors would have a preference for liquid assets as opposed to long-term investments and will seek a larger return for investments that will take longer time to mature. The convenience of retaining cash is referred to as liquidity. At any one moment, an individual or company will keep money for a variety of reasons (Bitrus, 2011). Thus, the theory assert that organizations maintain cash to fulfill either transaction needs, precautionary, speculation and compensation purposes.

According to Bibow (2005), a company's liquidity preference determines the amount of assets and liabilities it may keep. As a result, a bank's decision challenge will be how to balance returns and liquidity, resulting in increased profitability (Dafermos, 2009). This hypothesis is important because it will allow the bank to balance holding short-term and long-term loans while also owning more liquid short-term securities. Since short-term assets are more liquid, a bank may quickly revert them to cash, which can subsequently be utilized to protect the bank from any operational risk. Theoretically, it explains the anticipated link between liquidity and loan volumes.

2.3 Determinants of Lending

A multitude of variables, both internal and external, influence a bank's lending decisions. Internal variables differ from one bank to the next and can be manipulated by a bank. Management quality, credit risk, liquidity, capital adequacy, deposit obligations, interest rate, credit portfolio, size of the bank and ownership are among them. The gross domestic product, inflation, macroeconomic policy stability, and political instability are the primary external factors that influence lending (Athanasoglou, Brissimis & Delis, 2005).

2.3.1 Capital Adequacy

This is often known as the bank capitalization ratio which is the equity-to-total-assets ratio. It assesses a bank's capacity to manage risks in terms of solvency. In their investigation, Berger and DeYoung (1997) discovered a link between capital adequacy ratio and lending. Louzis et al. (2012) found a favorable relationship between capital adequacy ratio and lending. They came to the conclusion that banks with strong capital adequacy ratios may afford to put in place effective strategies to increase loan volume while reducing default risks.

Well-capitalized banks alerts the market that their performance should be better than average. A bank that is well capitalized signals the market that it should expect above-average performance. According to Athanasoglou et al., (2005), capital has a beneficial impact on lending, as seen by the Greece banks' strong financial position. Furthermore, Berger et al. (1987) discovered a link between capital contribution and company lending in both directions.

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2.3.2 Bank Liquidity

Liquidity is regarded as an entity's ability to meet its short-term financial commitments as and when they become due. Liquidity is defined as the capacity of management to meet their obligations to creditors without having to liquidate financial assets (Adam & Buckle, 2003).

Firms with a high level of liquidity are better able to deal with unforeseen events and responsibilities. Almajali et al. (2012) pointed out that a bank's liquidity may have a significant influence on the amount of credit it extends to customers; as a result, banks should aim to increase their liquid assets while reducing short-term liabilities, as they advocated. However, according to Jovanovic (1982), boosting bank liquidity may be more damaging than beneficial.

2.3.3 Credit Risk

Credit risk, in comparison to other risks faced by the banking sector, has a considerable influence on a bank's lending since it is the firm's direct solvency threat (Sufi & Qaisar, 2015). Loans supplied to lenders are at risk of default, but lenders continue to lend on the assumption that the borrowers would fulfill their repayment commitments without default and that the loans granted will not become non-performing (Bhattarai, 2016). Non-performing loans can drastically impair a bank's ability to lend.

Credit risk is generated by moral hazards and adverse selection owing to knowledge asymmetry in the banking business. Because a large portion of a bank's revenue comes from interest-bearing loans, the bank's credit risk has a significant influence on its lending. Nonetheless, credit risk poses a significant danger to bank lending. As a result, credit risk must be well controlled (Bhattarai, 2016).

2.3.4 Bank Size

The size of a bank typically determines how much it is affected by financial and legal concerns. Large banks are typically able to get low-cost funding while simultaneously making significant profits. This suggests that the size of a bank is proportional to its capital sufficiency. There is also a positive relationship between ROA and bank size, implying that large banks can achieve economies of scale, lowering operating costs and increasing lending (Amato & Burson, 2007). Magweva and Marime (2016) found a positive relationship between the size of a bank and the amount of NPLs, implying that the level of NPLs rises as the bank grows in size.

According to Amato and Burson (2007), the number of assets owned by an organization determines its size. In compared to small organizations with less assets, it may be argued that the larger a firm's assets are, the greater its ability to take on a large number of projects with higher returns. Furthermore, as compared to their smaller competitors, the larger the organization, the greater the amount of collateral that may be pledged in order to acquire credit facilities (Njoroge, 2014). According to Lee (2009), the number of assets under a company's control has an impact on the company's NPLs from one year to the next.

2.3.5 Interest Rate

Interest rates are regarded as an outflow of capital, and an increase or decrease in interest rates may impact financiers' savings decisions (Olweny & Omondi, 2010). Interest limitations, according to Rehman, Sidek, and Fauziah (2009), force banks to reduce lending. As a result, the banks' expansion will be delayed. To stop the situation from worsening, banks might increase fees and other taxes. According to Barnor (2014), unanticipated changes in interest rates have an influence on investment decisions, and as a result, investors tend to shift their savings from capital market to fixed profit instruments.

Khan and Sattar (2014) posit that the interest rate has a positive or negative impact on performance depending on its volatility. Savings are discouraged by a fall in depositor interest rates and an increase in spread. An increase in the investor's interest rate has a negative impact on the cost of the loan, which might lead to inability to pay. In compared to other sectors, the banking industry is the most vulnerable to interest rate changes since the majority of banks' revenue derives from interest rate differentials charged and paid to depositors.

2.4 Empirical Review

Various extant studies were pursued globally and locally on bank specific factors but most of the prior researches emphasized more on its effect on bank's financial performance.

2.4.1 Global Studies

Chaabouni and Selmi (2016) aimed at explaining the determining factor of credit rationing in Tunisia. Their study focus was on the information factor between firms and banks, given the limitation of lenders and borrowers contracts despite existence of legal rules and proper application. The study was restricted to the case of SMEs because of their role in industrial network. A survey was used to analyze the behavior of credit managers who dealt with loan applications of SMEs. The conclusion of the findings revealed that credit managers in Tunisia are risk averse, and that makes them ration credit. It was also found that inefficient recovery procedures, accounting documents reliability and the risk of adverse selection are some of the determinants of this rationing.

Researchers including Mazlan, Ahmad, and Jaafar (2016) looked at the factors that influence credit levels and profitability in Indian banks by employing panel data

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technique of analysis from the year 1997 to 2009. The results indicated an inference that was opposite to the established and expected outcome. It further discovered that interest rates have no substantial impact on commercial bank credit levels, and that the asset size of the bank had little impact on commercial banks' profitability level.

Agbeja, Adelakun and Olufemi (2015) studied how capital adequacy and loan volumes of banks in Nigeria relate. The study used a descriptive design and a multiple regression model was used in analysis. The study revealed a positive association between bank loan volumes and capital adequacy. The results showed that a larger equity augmented the chances of banks to report better loan volumes. This study did not address other firm specific factors that can influence loan volumes.

Ahiawodzi and Sackey (2013) investigated the impact of specific variables on the loan amount of commercial banks in Ghana realized during the time of liberal interest rates. The dependent variable was the loan amount realized and the exogenous variables were collateral value, net profits, business experience, age, gender, credit purpose and interest rates. The findings indicated that all the exogenous variables are important in explaining the dependent variable. The findings suggested that despite having liberal interest rates as a method of allocating credit, credit will still be rationed. This is because; the other factors are key determinants of allocation of credit as there exists moral hazard risk and adverse selection.

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Kanwal and Nadeem (2013) intended to see if there was a link between macroeconomic indicators (interest rate, inflation and GDP) and the lending levels of Pakistan's public commercial banks. The research encompassed a duration of ten years from 2001 to 2011. A sample of 23 listed banks were analyzed from the population of 38 banks. . The researchers discovered a substantial positive link between lending levels and interest rates, a weak negative relationship between inflation rate and bank lending levels, and an insignificant positive link between GDP and lending levels. In conclusion, the study found a weak relation between macroeconomic indicators and commercial bank lending levels.

2.4.3 Local Studies

In Kenya, Kemunto (2019) tried to identify the bank-specific factors of NPLs. The population consisted of 43 commercial banks operating in Kenya as of December 31, 2018. On a yearly basis, secondary data was gathered for a duration of 5 years (2014 - 2018). A descriptive cross-sectional study methodology was used, with a multiple linear regression model used to establish the relationship between variables. The findings revealed that bank size and loan-to-deposit ratio had a positive and substantial association. NPLs were found to have a negative and statistically significant impact on capital adequacy. According to the study, interest rates have a statistically minimal impact on bank NPLs.

Ngure (2018) investigated the impact of interest rate limiting on credit growth among Kenyan microfinance banks. The population was made up of 11 microfinance organizations that were permitted by the CBK to participate in deposit taking. Descriptive analysis, correlation analysis, and logit regression analysis were used to analyze the data. The logit results revealed that interest rate capping had a

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considerable impact on the influence of asset quality on lending growth of MFI banks in Kenya. The results of the Logit model also revealed a substantial link between loan growth and liquidity. The findings also revealed that interest rate capping has a considerable impact on the influence of liquidity on credit growth in microfinance institutions. The model findings also revealed that interest rate capping has a substantial impact on how capital sufficiency drives lending growth of microfinance institutions.

Auma and Muturi (2017) investigated the factors that limit the efficacy of bank credit in improving the performance of SMEs in Kenya in terms of credit, loan usage, and management skills. The survey was conducted using a descriptive survey design. The study targeted 1527 SMEs in Kisumu, with proportional sampling being used to sample 316 of them. The three characteristics accounted for 24 percent of the variance in SME performance, according to the findings. Credit conditions were the most important factor, accounting for 31.1 percent of the variation, followed by loan usage issues at 28.8 percent and management competence at 24.4 percent for the majority of SMES.

Chirchir and Maina (2017) undertook research on the impact of loan rationing on SMEs' financial accessibility. The target audience was SMEs in Baringo County's Eldama Ravine Sub–County. A cross-sectional survey was utilized as the study design, and a stratified random sampling approach was used to choose a sample of respondents from the accessible population. The data for this study was collected using a self-administered semi-structured questionnaire. The data revealed that corporations with a solid credit history, as well as older and larger businesses, are not rejected loans. Risky enterprises are also rationed by banks, according to the

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respondents. "In the vast majority of circumstances, companies that supply high-value collateral are not subject to credit rationing. From its findings, by reducing credit rationing, financial institutions guaranteed that SME's get access to financial services.

2.5 Conceptual Framework

The conceptual model below portrays the expected link between the study variables. Independent variable was bank specific factors as described by capital adequacy, liquidity, credit risk, bank size and interest rate. Dependent variable was lending as gauged by log total gross loans.

Figure 2.1: The Conceptual Model

Independent variables   **Dependent variable**

Liquidity
- Published liquidity ratios

Interest rates
- Average bank lending rate

Credit risk
- NPL/ total loans

Capital adequacy
- Core capital to risk weighted assets

Bank size
- Log total assets

Lending
- Log total gross loans
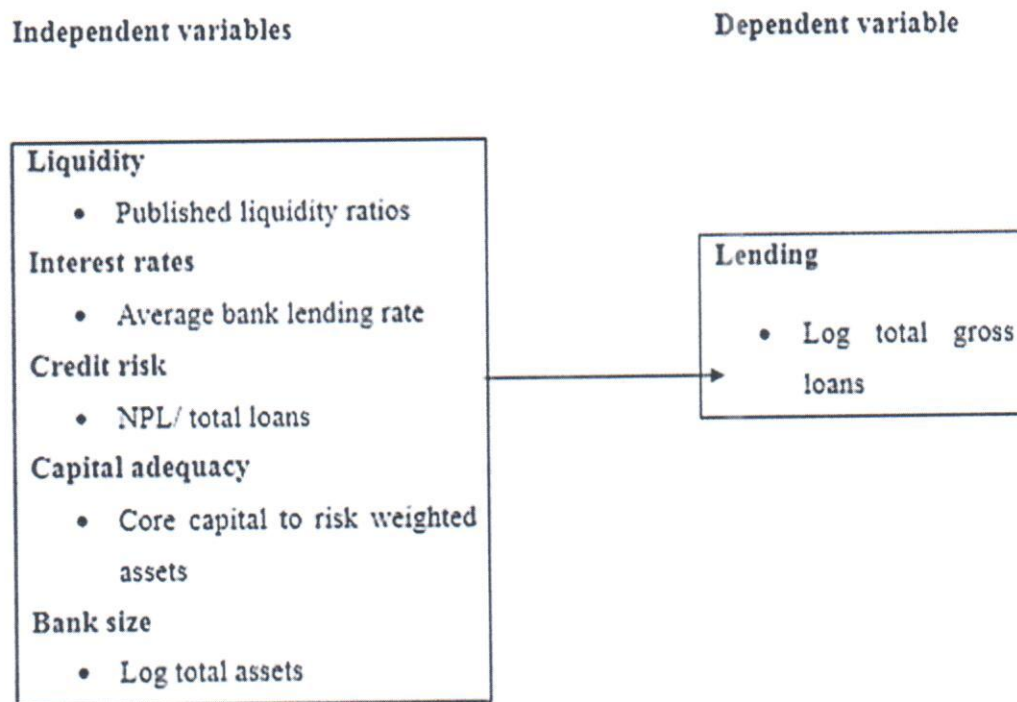
Source: Researcher (2021)

2.6 Summary of Literature Review

Various theories explained the anticipated link between bank specific factors and lending of commercial banks. Theories embraced include; the loanable funds theory

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of interest rates, liquidity preference theory and theory of adverse selection. Several locally and international researches are undertaken on bank specific factors. The findings from the extant studies have been explored also in this section. From the review, it was clear that studies on the impact of bank specific factors have mostly left out some key bank specific factors. Further, the available studies have not investigated the influence of bank specific factors on lending as majority has focused on financial performance which is a different concept.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter entails approaches utilized in accomplishing the objective which was to determine how bank specific factors affect lending of commercial banks. In particular, the chapter highlights the design, method of data collection, diagnostic tests and analysis employed.

3.2 Research Design

A descriptive design was adopted to determine how bank specific factors and lending of commercial banks relate. Design chosen was appropriate since the nature of the phenomena was of key interest to the researcher (Khan, 2008). It was also sufficient in defining the interrelationships of the phenomena. This design also validly and accurately represented the variables thereby giving sufficient responses to the study queries (Cooper & Schindler, 2008).

3.3 Population and Sample

Burns and Burns (2008) assert that a population entails all observations from a collection of interest like events specified in an investigation. The population in this research included 42 commercial banks in Kenya as at 31st December 2020. A census approach was adopted where all the 42 banks were assumed for the study since the population was comparatively small (Appendix I).

3.4 Data Collection

Secondary data which was depended on by the study was extracted from the annual published financials of the commercial banks from 2016 to 2020 and recorded in the data collection forms. Reports were extracted from CBK's financial publications of

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the specific banks. The specific data gathered comprised of value of liquid assets, total assets, core capital, total loans, risk weighted assets, non-performing loans and lending rates.

3.5 Diagnostic Tests

To ascertain the model viability, various diagnostic tests were done, like normality, stationarity, Hausman test, multicolinearity, homogeneity and autocorrelation. The assumption of normality was that the dependent variable's residual was normally distributed and closer to the mean. This was accomplished by use of the Kolmogorov-Smirnov test or Shapiro-wilk test. In instances whereby one of the variables had no normal distribution, it was adjusted using the logarithmic adjustment methodology. Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation changed with the passage of time. This property was ascertained via the Levin's test. In the event the data did not meet this property, the data was transformed using natural logarithm. Robust regression was also used as it provides better regression coefficients than ordinary least square (Khan, 2008).

Autocorrelation is a measure of how similar one time series was when compared to its lagged value across successive timings. The measure of this test was done using the Wooldridge test and in the event that the presumption was breached the robust standard errors were used in the model. Multicollinearity exists when a perfect or near perfect linear relation exist between a number of independent variables. Variance Inflation Factors (VIF) as well as tolerance levels were utilized. Heteroskedasticity confirms if the errors variance in a regression lies among the independent variables. This was tested using the Breuch Pagan test and if data did not meet the homogeneity

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of variances assumption, robust regression analysis was employed as it provides better regression coefficients when outliers exist in the data (Burns & Burns, 2008).

3.6 Data Analysis

Software of SPSS v.24 was employed in analyzing data. Tables and graphs described the qualitative findings. Descriptive statistics were employed in the calculation of measures of central tendency and dispersion and combined with std. deviation for every variable. Inferential statistics relied on correlation and regression outcomes. Correlation determined the magnitude of the relation between the variables and a regression determined cause and effect among variables. A multivariate regression linearly uncovered the relationship between dependent and independent variables.

3.6.1 Analytical Model

The following equation was applicable:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where: Y = Lending as measured by the natural logarithm of total gross loans

β_0 = y intercept of the regression equation.

β_1, β_2, β_3, β_4, β_5, β_6 = are the regression coefficients

X_1 = Bank liquidity as measured by the ratio of liquid assets to total assets

X_2 = Interest rate as measured by annual average bank lending rates

X_3 = Credit risk as measured by the ratio of non-performing loans to total loans

X_4 = Capital adequacy as given by the ratio of total core capital to risk weighted assets

X_5 = Bank size as measured by the natural logarithm of total assets

ε = error term

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3.6.2 Tests of Significance

Parametric tests determined the overall model and individual variables' significance. The F-test uncovered the overall model's significance and this was achieved using ANOVA while a t-test determined the significance of each individual variable.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND FINDINGS

4.1 Introduction

This chapter deals with the analysis of data. The research purposed to findout the relationship between bank specific factors and lending among banks in Kenya. Patterns were studied by descriptive and inferential analysis, that were then analyzed and conclusions made in accordance with the specific objectives.

4.2 Descriptive Statistics

Research purposed to describe the data in terms of their mean and standard deviations. The descriptive analysis was necessary as it helps in understanding the characteristics of the collected data before conducting inferential analysis. The results are tabulated in Table 4.1

Table 4.1: Descriptive Results

	N	Minimum	Maximum	Mean	Std. Deviation
Lending	185	5.4633	8.7287	7.416679	.6084600
Liquidity	185	.0004	.2266	.073521	.0407567
Interest rate	185	8.5000	10.7500	9.766210	.7611799
Credit risk	185	.0008	38.5539	.355127	2.8284459
Capital adequacy	185	.0280	2.1258	.237358	.2113328
Bank size	185	14.7750	20.6163	17.725991	1.3648773
Valid N (listwise)	185				

Source: Field data (2021)

Table 4.1 shows the descriptive analysis, with 185 observations for each variable based on the product of the number of cross-sectional units and the number of periods studied (37*5 =185). The dependent variable was lending while the independent

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variable was bank specific factors (liquidity, interest rates, capital adequacy, credit risk and bank size).

4.3 Diagnostic Tests

To ascertain the model viability, a number of diagnostic tests were done, like normality, stationarity, Multicollinearity test, homogeneity of variance and autocorrelation.

4.3.1 Normality Test

To test whether the collected data was normally distributed, normality test was conducted using the Shapiro-Wilk Test. The threshold was that, if the p value is greater than 0.05, then the data assumes a normally distribution.

Table 4.2: Test for Normality

	Shapiro-Wilk		
	Statistic	Df	Sig.
Lending	0.869	185	0.078
Liquidity	0.918	185	0.102
Interest rates	0.881	185	0.094
Capital adequacy	0.892	185	0.101
Credit risk	0.923	185	0.120
Bank size	0.874	185	0.094
a. Lilliefors Significance Correction			

Source: Field Data (2021)

The normality test results revealed a p- value above 0.05 for all the variables thus the null hypothesis was rejected and the alternate hypothesis was accepted meaning the normality test revealed normal distribution in the data.

4.3.2 Multicollinearity Test

Multicollinearity exists when a perfect or near perfect linear relation exist between a number of independent variables. Variance Inflation Factors (VIF) as well as tolerance levels were utilized.

Table 4.3: Multicollinearity

Variable	Collinearity Statistics	
	Tolerance	**VIF**
Liquidity	0.724	1.382
Interest rates	0.684	1.463
Capital adequacy	0.703	1.422
Credit risk	0.661	1.513
Bank size	0.634	1.577

Source: Field data (2021)

The outcomes in Table 4.3 specify that all variables recorded a VIF values <10 and tolerance values >0.2 suggesting that Multicollinearity did not exist.

4.3.3 Heteroskedasticity test

Breusch-Pagan test was utilized in checking heteroskedasticity. The null hypothesis was that error terms have a constant variance. Table 4.4 shows Heteroskedasticity Test Results.

Table 4.4: Heteroskedasticity Results

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity		
Ho: Constant variance		
Variable: fitted values		
chi2(1)	=	0.8227
Prob > chi2	=	0.6314

Source: Field data (2021)

The null hypothesis of Homoskedastic error terms is not rejected, according to the results in Table 4.4, which are supported by a 0.6314 p-value. This means that the data had a constant variance and therefore suitable for use in regression analysis.

4.3.4 Autocorrelation Test

Autocorrelation is a measure of how similar one time series is when compared to its lagged value across successive timings. The measure of this test was done using the Wooldridge test.

Table 4.5: Test of Autocorrelation

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
F(1, 184) = 0.329
Prob> F = 0.5164

Source: Field data (2021)

From the results of Table 4.5, the null hypothesis of no serial correlation is not rejected given that the p-value is significant (p-value = 0.5164). This means that the data did not suffer from autocorrelation and therefore suitable for regression analysis.

4.3.5 Stationarity Test

Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation change with the passage of time. Table 4.6 shows Levin-Lin Chu unit root test results.

Table 4.6: Levin-Lin Chu unit-root test

Levin-Lin Chu unit-root test Variable	Hypothesis	p value	Verdict
Lending	Ho: Panels contain unit roots	0.0000	Reject Ho
Liquidity	Ho: Panels contain unit roots	0.0000	Reject Ho
Interest rates	Ho: Panels contain unit roots	0.0000	Reject Ho
Capital adequacy	Ho: Panels contain unit roots	0.0000	Reject Ho
Credit risk	Ho: Panels contain unit roots	0.0000	Reject Ho
Bank size	Ho: Panels contain unit roots	0.0000	Reject Ho

Source: Field data (2021)

Table 4.6 presents the null hypotheses that: Panels contain unit roots were rejected for all the variables, because the p values were less than 0.05. This infer that the panel data were stationary for all the variables

4.4 Correlation Results

Correlation analysis was carried out to establish the strength and direction of association between each predictor variable and the response variable. The results in Table 4.7 show the nature of relationships between the study variables in terms of magnitude and direction.

Table 4.7: Correlation Results

		Lending	Liquidity	Interest rates	Capital adequacy	Credit risk	Bank size
Lending	Pearson Correlation	1					
	Sig. (2-tailed)						
Liquidity	Pearson Correlation	.126	1				
	Sig. (2-tailed)	.088					
Interest rates	Pearson Correlation	-.495**	-.140	1			
	Sig. (2-tailed)	.000	.057				
Capital adequacy	Pearson Correlation	.077	.057	.046	1		
	Sig. (2-tailed)	.298	.441	.534			
Credit risk	Pearson Correlation	-.479**	-.049	.114	.155*	1	
	Sig. (2-tailed)	.000	.508	.124	.036		
Bank size	Pearson Correlation	.975**	.147*	.545**	.034	.174*	1
	Sig. (2-tailed)	.000	.046	.000	.643	.018	

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
c. Listwise N=185

The results in Table 4.8 reveal that liquidity and lending are positively but not significantly correlated (r=0.005) at 5% significance level. In addition, the results show that interest rates and lending are negatively and significantly correlated (r=-0.495**) at 5 % significance level. This implies that interest rates and lending change in the opposite direction. Capital adequacy did not have a significant link with lending while credit risk had a significant negative relationship with lending (r=-0.479**) at 5 % significance level. Bank size exhibited a positive and substantial relationship with lending (r=0.975**) at 5 % significance level.

4.5 Regression Results

Regression analysis purposed to find the extent to which lending is explained by the selected variables. The regression results are tabulated in Table 4.8 to Table 4.10.

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.979[a]	.959	.958	.1243162

a. Predictors: (Constant), Bank size, Capital adequacy, Interest rate, Liquidity, Credit risk

From the findings as represented by the adjusted R^2, the independent variables that were studied explained 95.9% of the variations in lending among commercial banks in Kenya. This therefore means the five variables contributed 95.9% of the variations in lending among commercial banks in Kenya while other factors not studied in this research contribute 4.1%.

Table 4.9: ANOVA Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	65.355	5	13.071	845.769	.000[b]
1	Residual	2.766	179	.015		
	Total	68.121	184			

a. Dependent Variable: Lending
b. Predictors: (Constant), Bank size, Capital adequacy, Interest rate, Liquidity, Credit risk

Source: Field data (2021)

ANOVA statistics in Table 4.9 show that the data had a 0.000 level of significance hence this indicates that the data is ideal for making conclusions on the variables.

Table 4.10: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	-.245	.038		-6.712	.000
	Liquidity	.014	.052	.015	.261	.794
	Interest rates	-.171	.015	-.210	-4.836	.000
1	Capital adequacy	.019	.010	.106	1.976	.050
	Credit risk	-.405	.001	-.401	-7.490	.000
	Bank size	.828	.002	.810	11.204	.000

a. Dependent Variable: LENDING

Source: Field data (2021)

The coefficient of regression model was as below;

$$Y = -0.245 - 0.171X_1 - 0.405X_2 + 0.828X_3$$

Where:

Y = Lending; X_1 = Interest rates; X_2 = Credit risk; X_3 = Bank size

4.6 Discussion of Research Findings

The objective purposed to establish the effect of bank specific factors on lending. This research utilized a descriptive design while the population was the 42 banks in Kenya, however completed data for only 37 banks was collected. Data employed was secondary gotten from CBK's individual banks annual reports. The specific attributes of bank specific factors considered were; liquidity, capital adequacy, credit risk, bank size and interest rates. Data was analyzed using both descriptive and inferential statistics. The results are discussed in this section.

Regression results revealed that liquidity was positively but not significantly related with lending of banks in Kenya (β=0.014, p=0.794). In addition, results revealed that interest rates was negatively and significantly related with lending of banks in Kenya (β=-0.171, p=0.000). Credit risk exhibited a negative and significant effect on lending of banks (β=-.405, p=0.000). Capital adequacy exhibited a not significant positive effect while bank size exhibited a significant positive effect (β=.828, p=0.000) on lending by banks. The R squared was 0.959. It infers that predictor variables selected contributed 95.9% to variations in lending.

The findings of this study, as far as interest rates are concerned, concur with Kanwal and Nadeem (2013) established the link between macroeconomic variables (interest rate GDP and inflation rate) and lending levels of Pakistan public commercial banks2001-2011 (ten years). The researchers found a strong negative association between lending levels and interest rate.

The study also concurs with Agbeja, Adelakun and Olufemi (2015) who studied how capital adequacy and loan volumes of banks in Nigeria relate. The study used a descriptive design and a multiple regression model. The study revealed a positive

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association between bank loan volumes and capital adequacy. The results showed that a larger equity increased the chances of the banks to report better loan volumes. This study did not address other firm specific factors that can influence loan volumes.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter makes summaries, concludes on findings as wells as outlines limitations that chance upon. It provides also recommendation for policy makers and gives suggestions on areas where further studies can be done.

5.2 Summary of Findings

The objective of this research was to assess the effect of bank specific factors on lending of banks in Kenya. The selected variables for investigation included liquidity, interest rates, credit risk, capital adequacy and bank size. A descriptive research design was preferred and employed in this research. Secondary data was gathered from CBK and an analysis made using SPSS. Yearly data for 37 banks for five years from 2016 to 2020 was obtained from their annual reports.

The first objective was to establish the effect of liquidity on lending among commercial banks in Kenya. The correlation results at 5% significance level show that liquidity ratio had a positive but not a significant correlation with lending. Regression results ($\beta=0.014$, $p=0.794$) show that there was a positive but not a significant effect of liquidity on lending among banks in Kenya. This implies that liquidity is not a good predictor of lending ability.

The second objective was to assess the effect of interest rates on lending among banks in Kenya. The correlation results at 5% significance level show that interest rates had a negative correlation with lending. Regression results ($\beta=-0.171$, $p=0.000$) show that there was a negative and significant effect of interest rates on lending among banks in

Kenya. This implies that interest rate is an effective predictor of lending among banks in Kenya.

The third objective was to examine the effect of capital adequacy on lending among banks in Kenya. The correlation results at 5 % significance level show that capital adequacy had a positive but not significant correlation with lending. This implies that an increase in capital adequacy would not lead to a significant change in lending. Regression results (β=0.019, p=0.05) show that there was a positive but not significant effect of capital adequacy on lending among banks in Kenya.

The fourth objective was to examine the effect of credit risk on lending among banks in Kenya. The correlation results at 5 % significance level show that credit risk had a negative correlation with lending. The correlation was also statistically significant. Regression results (β=-0.405, p=0.000) show that there was a negative and significant effect of credit risk on lending among banks in Kenya. This implies that credit risk ratio is a good predictor of lending among banks in Kenya.

The fifth objective was to examine the effect of bank size on lending among banks in Kenya. The correlation results at 5% significance level show that bank size had a positive correlation with lending. This implies that improvement in bank size would lead to increase in lending. Regression results (β=0.828, p=0.000) show that there was a positive and significant effect of bank size on lending among banks in Kenya.

5.3 Conclusions

The study results further indicated that interest rate is a significant determiner of lending. This may imply that banks with higher interest rates are likely to record a low level of lending compared with banks with less interest rates. The study concludes that interest rates have a negative effecting on lending among banks in Kenya.

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In addition, the results revealed that credit risk has a significant negative effect on lending. This implies that banks with high levels of NPLs in their books end up having a lower lending. The study concludes that credit risk is an effective predictor of lending. Further, the study revealed that bank size has a significant positive effect on lending. Research concludes that big banks lend more than small banks.

5.4 Recommendations for Policy and Practice

The study findings reveal that interest rates had a negative and significant effect on lending. The study therefore recommends that management and directors of commercial banks in Kenya should ensure that they strike a balance between the benefits of high interest rates and the costs associated with it as high levels of interest rates were found to decrease lending.

Further, bank size was found to have a significant and positive effect on lending of banks. The study therefore recommends that banks in Kenya should strive on growing their asset base as bigger banks are able to enjoy economies of scale and have better structures that help them in managing and monitoring loans compared to small banks and this leads to enhanced lending.

5.5 Limitations of the Study

The focus was on some of the elements that are thought to influence lending of banks in Kenya. The study focused on five explanatory variables in particular. However, there are other factors that are likely to influence a bank's lending. Some are controlled by the bank, such as leverage and corporate governance, while others are not.

The research used secondary quantitative data. The study also ignored qualitative data that could explain other factors that influence the relationship between bank specific

factors and banks' lending. Qualitative methods like focus groups, open-ended surveys, and interviews can aid in the development of more definite outcomes.

The study focused on a five-year period (2016 to 2020). It is unclear whether the results will last for a longer period of time. It is also unclear whether similar results will be achieved after 2020. In order to account for key economic events, the study should have been conducted over a longer period of time.

The researcher utilized a regression model to analyze the data. Because of the limitations of employing regression models, such as erroneous and deceptive outcomes that cause the value of the variable to change, it was not possible to generalize the conclusions of the research with accuracy. More so the result could be different if more data was added in the regression.

5.6 Suggestions for Further Research

The study findings revealed an R square of 95.9%. This implies that there are other factors that explain lending among the banks in Kenya that were not addressed by the research. Other researches ought thus to focus on other factors for example; operational risk, board composition in terms of expertise, audit committee, among other corporate governance aspects that affect lending among the banks.

The study was limited to commercial banks in Kenya. Additional research on other Kenyan financial institutions should be conducted, according to the study's suggestions. Future research should look into how bank specific factors influence other factors besides lending, such as bank value, efficiency, and growth, to name a few.

Because of the readily available data, the focus of this research was drawn to the last five years. Future studies may span a longer time period, such as ten or twenty years, and might have a significant impact on this study by either complementing or contradicting its conclusions. A longer study has the advantage of allowing the researcher to catch the effects of business cycles such as booms and recessions.

Finally, this research relied on a regression model, which has its own set of limitations, such as errors and misleading results when a variable is changed. Future study should concentrate on models such as the Vector Error Correction Model (VECM) in order to investigate the influence of bank specific factors on lending.

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APPENDICES

Appendix I: List of Commercial Banks in Kenya

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank of Kenya
6. Chase Bank Kenya (In Receivership)
7. Citibank
8. Commercial Bank of Africa
9. Consolidated Bank of Kenya
10. Cooperative Bank of Kenya
11. Credit Bank
12. Development Bank of Kenya
13. Diamond Trust Bank
14. Dubai Islamic Bank
15. Ecobank Kenya
16. Equity Bank
17. Family Bank
18. First Community Bank
19. Guaranty Trust Bank Kenya
20. Guardian Bank
21. Gulf African Bank
22. Habib Bank AG Zurich
23. Housing Finance Company of Kenya
24. I&M Bank
25. Imperial Bank Kenya (In receivership)
26. Jamii Bora Bank
27. Kenya Commercial Bank
28. Mayfair Bank
29. Middle East Bank Kenya
30. National Bank of Kenya
31. NIC Bank
32. Oriental Commercial Bank
33. Paramount Universal Bank
34. Prime Bank (Kenya)
35. SBM Bank Kenya Limited
36. Sidian Bank
37. Spire Bank
38. Stanbic Bank Kenya
39. Standard Chartered Kenya
40. Trans National Bank Kenya
41. United Bank for Africa
42. Victoria Commercial Bank

Source: CBK (2021)

Appendix II: Research Data

Bank	Year	Lending	Liquidity	Interest rate	Credit risk	Capital adequacy	Bank size
1	2016	7.1845	0.0544	8.5000	0.1426	0.1645	16.9342
	2017	7.1656	0.0659	10.1250	0.1566	0.1528	16.9451
	2018	7.2016	0.0992	10.7500	0.1829	0.1560	17.0576
	2019	7.2501	0.0633	10.0000	0.1989	0.1844	17.1451
	2020	7.2841	0.0750	9.3333	0.1490	0.1538	17.1964
2	2016	7.5775	0.0859	8.5000	0.2325	0.1639	18.0537
	2017	7.4989	0.1142	10.1250	0.2606	0.1616	17.8408
	2018	7.4376	0.0951	10.7500	0.2816	0.1578	17.8080
	2019	7.3261	0.2023	10.0000	0.3383	0.1602	17.7090
	2020	7.2036	0.2103	9.3333	0.4139	0.1083	17.5996
3	2016	7.4530	0.0475	8.5000	0.0754	1.9617	18.0376
	2017	7.5611	0.0489	10.1250	0.0846	0.3053	18.2332
	2018	7.6254	0.0455	10.7500	0.0586	0.3229	18.3812
	2019	7.6188	0.0519	10.0000	0.0882	0.3466	18.6278
	2020	7.6716	0.0547	9.3333	0.0828	0.3274	18.7805
4	2016	8.1639	0.0755	8.5000	0.0420	0.1840	19.2998
	2017	8.2266	0.0515	10.1250	0.0521	0.1786	19.3751
	2018	8.2263	0.0602	10.7500	0.0556	0.1803	19.4197
	2019	8.2488	0.0723	10.0000	0.0610	0.1638	19.6003
	2020	8.2898	0.0770	9.3333	0.0560	0.1667	19.7397
5	2016	7.2518	0.0362	8.5000	0.0202	0.4230	17.5571
	2017	7.2843	0.0335	10.1250	0.0139	0.4574	17.6829
	2018	7.3147	0.0391	10.7500	0.0207	0.5397	17.8521
	2019	7.2654	0.0340	10.0000	0.0713	0.4392	17.9537
	2020	7.1096	0.0427	9.3333	0.0936	0.4842	17.9514
6	2016	7.4253	0.1110	8.5000	0.0580	0.2832	18.2945
	2017	7.4383	0.0672	10.1250	0.0192	0.2637	18.4534
	2018	7.5704	0.0835	10.7500	0.0368	0.2555	18.4028
	2019	7.4222	0.0860	10.0000	0.0162	0.2764	18.2656
	2020	7.4154	0.1219	9.3333	0.0257	0.2715	18.3858
7	2016	8.0150	0.0810	8.5000	0.1059	0.1792	19.1891
	2017	8.0479	0.1344	10.1250	0.0745	0.1845	19.2507
	2018	8.0555	0.0947	10.7500	0.0831	0.1732	19.3199
	2019	8.0846	0.0754	10.0000	0.0797	0.1573	19.3172
8	2020	6.9648	0.0537	8.5000	0.0553	0.0939	16.4642
	2016	6.9620	0.0469	10.1250	0.1176	0.0790	16.4487
	2017	6.9254	0.0637	10.7500	0.1527	0.0509	16.4149
	2018	6.9258	0.0713	10.0000	0.1533	0.0280	16.3718
	2019	6.8674	0.0764	9.3333	0.2568	0.1352	16.2888

Bank	Year	Lending	Liquidity	Interest rate	Credit risk	Capital adequacy	Bank size
9	2020	6.8505	0.0247	8.5000	0.0638	0.1551	16.1464
	2016	6.8976	0.0248	10.1250	0.0722	0.2285	16.3200
	2017	6.9867	0.0201	10.7500	0.0754	0.1477	16.4904
	2018	7.1150	0.0228	10.0000	0.0724	0.1451	16.7006
	2019	7.1826	0.0182	9.3333	0.0870	0.1496	16.8910
10	2020	8.3193	0.0860	8.5000	0.0342	2.1258	19.6518
	2016	8.4152	0.0730	10.1250	0.0390	0.2277	19.6787
	2017	8.4584	0.0627	10.7500	0.0620	0.2268	19.7736
	2018	8.3899	0.0785	10.0000	0.1009	0.1618	19.8406
	2019	8.4260	0.0635	9.3333	0.0979	0.1505	19.9402
11	2020	6.9412	0.0050	10.1250	0.2601	0.2508	16.6135
	2016	6.9638	0.0040	10.7500	0.2098	0.2355	16.6072
	2017	6.9236	0.0078	10.0000	0.2981	0.2323	16.5449
	2018	6.8982	0.0235	9.3333	0.3695	0.3147	16.5472
12	2019	8.2493	0.0159	8.5000	0.0241	0.1463	19.4199
	2020	8.2702	0.0180	10.1250	0.0325	0.1850	19.6087
	2016	8.2924	0.0210	10.7500	0.0666	0.1901	19.7107
	2017	8.2857	0.0210	10.0000	0.0629	0.2111	19.7497
	2018	8.2990	0.0212	9.3333	0.0683	0.2091	19.7719
13	2019	5.4633	0.0420	10.7500	38.5539	0.7005	14.7750
	2020	6.3287	0.0990	10.0000	0.0037	0.2990	15.4739
	2016	6.7046	0.1263	9.3333	0.0095	0.1486	16.0114
14	2017	7.4716	0.0684	8.5000	0.0622	0.2496	17.7749
	2018	7.3887	0.0477	10.1250	0.1628	0.1944	17.6683
	2019	7.2141	0.0851	10.7500	0.3770	0.1599	17.7944
	2020	7.1147	0.0743	10.0000	0.1735	0.1659	17.8130
	2016	7.3300	0.0301	9.3333	0.1448	0.1622	18.1380
15	2017	8.4312	0.0814	8.5000	0.0272	0.2017	19.8748
	2018	8.4250	0.0494	10.1250	0.0628	0.1966	19.9761
	2019	8.4457	0.0509	10.7500	0.0553	0.2041	20.0779
	2020	8.4731	0.0425	10.0000	0.0710	0.1593	20.1671
	2016	8.5640	0.0710	9.3333	0.0873	0.1979	20.3283
16	2017	7.5789	0.0759	8.5000	0.0367	0.1441	18.2134
	2018	7.7004	0.0790	10.1250	0.1197	0.2078	18.0567
	2019	7.6382	0.0816	10.7500	0.1923	0.1986	18.0516
	2020	7.6446	0.0937	10.0000	0.1618	0.1952	18.0204
	2016	7.7041	0.0883	9.3333	0.1409	0.1869	18.1831
17	2017	7.0390	0.1685	8.5000	0.2346	0.1145	16.4941
	2018	7.0390	0.1486	10.1250	0.3195	0.1399	16.5210
	2019	6.9880	0.1340	10.7500	0.4078	0.1534	16.6697
	2020	6.9556	0.1271	10.0000	0.4882	0.0911	16.6992

Bank	Year	Lending	Liquidity	Interest rate	Credit risk	Capital adequacy	Bank size
	2016	6.9961	0.1678	9.3333	0.4145	0.0810	16.7474
18	2017	7.2924	0.0786	8.5000	0.0916	0.2649	17.5282
	2018	7.2887	0.2266	10.1250	0.1108	0.2547	17.2864
	2019	7.3127	0.1958	10.7500	0.1088	0.2387	17.2774
	2020	7.2941	0.0477	10.0000	0.1467	0.2597	17.4516
	2016	7.3163	0.0526	9.3333	0.1090	0.2428	17.1856
19	2017	6.9658	0.0904	8.5000	0.0304	0.1763	16.4972
	2018	6.9530	0.1042	10.1250	0.0169	0.1904	16.5037
	2019	6.9830	0.0782	10.7500	0.0453	0.2022	16.5757
	2020	6.9556	0.0863	10.0000	0.0757	0.2275	16.5997
	2016	6.9592	0.0961	9.3333	0.0689	0.2220	16.6120
20	2017	7.1883	0.0890	8.5000	0.0842	0.1577	17.0226
	2018	7.2093	0.1278	10.1250	0.0923	0.1872	17.1171
	2019	7.2874	0.1095	10.7500	0.0929	0.1620	17.2596
	2020	7.3542	0.0866	10.0000	0.1064	0.1866	17.3218
	2016	7.3555	0.0642	9.3333	0.1534	0.1711	17.3744
21	2017	6.5962	0.0526	8.5000	0.0792	0.3213	16.1408
	2018	6.5812	0.0670	10.1250	0.1871	0.3911	16.3419
	2019	6.7984	0.0322	10.0000	0.0745	0.2463	16.8845
	2020	6.8260	0.0305	9.3333	0.0922	0.2729	17.0273
22	2016	7.7244	0.0004	8.5000	0.0437	0.1813	18.0874
	2017	7.7362	0.0699	10.1250	0.0692	0.1769	18.0912
	2018	7.6958	0.0604	10.7500	0.1081	0.1700	18.0282
	2019	7.6379	0.0459	10.0000	0.2494	0.1534	17.9190
	2020	7.5860	0.0504	9.3333	0.2356	0.1456	17.8490
23	2016	8.1066	0.0519	8.5000	0.0248	0.2020	19.0716
	2017	8.1293	0.0526	10.1250	0.0289	0.1815	19.1652
	2018	8.1847	0.0495	10.7500	0.0870	0.1858	19.2966
	2019	8.1692	0.0483	10.0000	0.1079	0.1792	19.3315
	2020	8.1953	0.0440	9.3333	0.0979	0.2156	19.4287
24	2016	7.0067	0.0647	8.5000	0.0517	0.1625	16.6358
	2017	6.9711	0.0438	10.1250	0.1720	0.2008	16.5742
	2018	6.9197	0.0133	10.7500	0.1331	0.1933	16.3714
25	2016	8.5390	0.1737	8.5000	0.0446	0.1536	20.1400
	2017	8.5863	0.0494	10.1250	0.0705	0.1801	20.2045
	2018	8.6260	0.0450	10.7500	0.0766	0.1663	20.2873
	2019	8.6589	0.0589	10.0000	0.0627	0.1955	20.3868
	2020	8.7287	0.0676	9.3333	0.1016	0.1903	20.6163
26	2016	6.5583	0.0575	10.1250	0.1590	0.3933	15.4706
	2017	6.4423	0.1582	10.7500	0.1807	0.5708	15.4489
	2018	6.4083	0.0660	10.0000	0.3825	0.4494	15.4946

Bank	Year	Lending	Liquidity	Interest rate	Credit risk	Capital adequacy	Bank size
	2019	6.7756	0.0615	9.3333	0.1374	0.3119	15.9516
27	2016	6.8220	0.0801	10.1250	0.0821	0.3869	16.1101
	2017	6.8617	0.0921	10.7500	0.0718	0.3316	16.1741
	2018	6.8752	0.1104	10.0000	0.0940	0.3093	16.1683
	2019	6.8333	0.0855	9.3333	0.1931	0.3442	16.3327
28	2016	7.8313	0.1310	8.5000	0.1116	0.1399	18.6473
	2017	7.7405	0.0764	10.1250	0.1749	0.0715	18.5348
	2018	7.7190	0.0683	10.7500	0.3001	0.0542	18.5148
	2019	7.6792	0.0533	10.0000	0.3913	0.0370	18.5591
	2020	7.6615	0.1132	9.3333	0.3564	0.1150	18.5343
29	2017	8.0594	0.0539	8.5000	0.0912	0.2059	18.9262
	2018	8.0587	0.0429	10.1250	0.1126	0.2304	18.9481
	2019	8.0783	0.0462	10.7500	0.1089	0.2227	19.1442
	2020	8.0676	0.0574	10.0000	0.1224	0.1869	19.1550
30	2016	6.7688	0.0958	8.5000	0.0519	0.2412	16.1693
	2017	6.7634	0.0812	10.1250	0.0828	0.2741	16.0592
	2018	6.7710	0.1153	10.7500	0.1056	0.2946	16.0711
	2019	6.7515	0.1249	10.0000	0.1318	0.2853	16.1067
	2020	6.8104	0.0866	9.3333	0.1211	0.2450	16.1615
31	2016	7.6133	0.0575	8.5000	0.0170	0.1729	17.9899
	2017	7.5950	0.0413	10.1250	0.0362	0.2216	17.9950
	2018	7.5907	0.0611	10.7500	0.0486	0.2248	18.1721
	2019	7.5656	0.0876	10.0000	0.0606	0.3729	18.4220
	2020	7.5683	0.0531	9.3333	0.1018	0.4136	18.5049
32	2016	8.0141	0.0798	8.5000	0.1025	0.1509	18.7977
	2017	6.6881	0.0307	10.1250	0.8832	0.1281	16.0873
	2018	6.6434	0.0877	10.7500	0.7290	0.1644	16.2608
	2019	7.0866	0.1112	10.0000	1.2528	0.2425	18.0733
	2020	7.1893	0.0586	9.3333	0.8521	0.2312	18.0994
33	2016	7.0976	0.1559	8.5000	0.1284	0.2468	16.7655
	2017	7.1282	0.1486	10.1250	0.2383	0.2325	16.8541
	2018	7.0573	0.1991	10.7500	0.2780	0.1646	16.7757
	2019	7.1184	0.0846	10.0000	0.2035	0.1440	17.0467
	2020	7.1621	0.1250	9.3333	0.1968	0.1793	17.0908
34	2016	8.0068	0.0544	8.5000	0.0411	0.1870	19.1552
	2017	8.0629	0.0402	10.1250	0.0505	0.1812	19.1847
	2018	8.1157	0.0323	10.7500	0.0666	0.1684	19.3319
	2019	8.1661	0.0785	10.0000	0.0945	0.1740	19.4537
	2020	8.1842	0.0914	9.3333	0.0998	0.1834	19.4947
35	2016	8.0612	0.0609	8.5000	0.1015	0.2116	19.2707
	2017	8.0889	0.0619	10.1250	0.0829	0.2091	19.3389

Bank	Year	Lending	Liquidity	Interest rate	Credit risk	Capital adequacy	Bank size
	2018	8.1014	0.0467	10.7500	0.0896	0.1852	19.4705
	2019	8.0743	0.0711	10.0000	0.1169	0.1947	19.4694
	2020	8.1095	0.0683	9.3333	0.0953	0.1773	19.5264
36	2016	6.9202	0.0544	8.5000	0.3332	0.1745	16.4876
	2017	6.8712	0.0712	10.1250	0.1677	0.1627	16.4404
	2018	6.7192	0.0305	10.7500	0.4271	0.1265	16.2268
	2019	6.6479	0.0445	10.0000	0.5598	0.2201	16.0372
	2020	6.5201	0.0205	9.3333	0.7111	0.2060	15.7413
37	2016	6.8228	0.0974	8.5000	0.1103	0.2164	16.1624
	2017	6.8040	0.1242	10.1250	0.1156	0.2230	16.1547
	2018	6.8198	0.1391	10.7500	0.2416	0.2908	16.1419
	2019	6.8212	0.1290	10.0000	0.2211	0.2111	16.1414
	2020	6.7870	0.0869	9.3333	0.2857	0.2015	16.0475
38	2016	6.4367	0.0312	8.5000	0.0180	0.2379	15.8672
	2017	6.4855	0.0366	10.1250	0.0186	0.3868	15.5385
	2018	6.5146	0.0733	10.7500	0.0436	0.3878	15.6880
	2019	6.5375	0.0860	10.0000	0.1276	0.3316	16.5455
	2020	6.5599	0.0256	9.3333	0.2432	0.2537	16.5936
39	2016	7.1181	0.0659	8.5000	0.0329	0.1930	16.8122
	2017	7.1845	0.0598	10.1250	0.0255	0.2545	16.9247
	2018	7.2758	0.0673	10.7500	0.0008	0.2274	17.0730
	2019	7.3539	0.0816	10.0000	0.0308	0.2109	17.2917
	2020	7.3764	0.0780	9.3333	0.0506	0.2015	17.4010