

**DETERMINANTS OF BANKS' FINANCIAL PERFORMANCE IN
DEVELOPING ECONOMIES: EVIDENCE FROM KENYAN COMMERCIAL
BANKS**

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DECLARATION

This project is my original work and has not been presented for the award of degree in any other University.

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This research project has been submitted for presentation with my approval as University Supervisor.

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DEDICATION

This study is dedicated to my family for their support as well as to the almighty God for the provision of wisdom and grace on the entire journey.

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I take this opportunity to thank the Almighty God for seeing me through the completion of this project. All glory unto him.

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LIST OF ABBREVIATIONS AND ACRONYMS

CBA-Commercial Bank of Africa

CBK-Central Bank of Kenya

EU-European Union

KCB-Kenya Commercial Bank Limited

MFB- Microfinance Banks

NIM-Net Interest Margin

RO- Return on Assets

ROA-Return on Assets

ROE-Return on Equity

SSA-Sub-Saharan African

SPSS-Statistical Package for Social Sciences

ABSTRACT

Central in the field of finance is financial performance. The need to explain how two firms operating within the same environment perform differently is a concern and several research works in finance have been devoted towards understanding this mystery. This led to studies which focus on various internal factors as well as external issues thought to be the cause of differing financial performance. The study's aim was establishing the determinants of performance of Kenyan banks. All the 42 banks in operation were the study's population. Data was obtained from 38 of the banks giving a response rate of 90.48% which was considered adequate. The independent variables for the study were capital adequacy given by core capital to risk weighted assets, interest rate given by the ratio of interest income to interest expense, asset quality given by non-performing loans to total loans, liquidity management given by liquid assets to total assets annually and bank size given by natural log of total assets per year. Financial performance was the dependent variable given by ROA. Secondary data for 5 years (January 2015 to December 2019) was obtained annually. A descriptive longitudinal design together with a regression model was employed in analyzing how the variables relate. Data analysis was performed using SPSS version 23. Findings revealed an R-square value of 0.484 when financial performance was measured by ROA which meant that 48.4 percent variations in performance resulted from variations in the five selected independent variables. ANOVA revealed an F statistic which was significant at 5% level since $p < 0.05$. Hence the model was sufficient in establishing the relation between the variables. Additionally, capital adequacy, interest rate, liquidity management and bank size had a positive substantial influence on ROA while asset quality had a negative and significant impact on ROA. The investigation recommends the implementation of measures to enhance capital adequacy, liquidity management, interest rate spread and bank size and to minimize credit risk as these have a significant influence on performance. The study also suggests that future studies should focus on other determinants of performance of Kenyan banks.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Modern trade and economic development has highly been contributed to by the banking segment which is its main basis of economic finance (Ongore & Kusa, 2013). Profitability is the driving force of these nonfinancial and financial institutions. The major components for these banking organizations include the commercial banks. The competitive marketing strategy is the cause of the victory and development of commercial banks. Swarnapali (2014) argues that the advertising section employs various marketing strategies that help them contend with other players within the marketplace. For the last few decades, there are few studies that have been conducted on the dynamics of commercial banks accomplishments in contemporary fast paced production. According to Sufian and Chong (2008), the achievements of commercial banks is amongst the research arena that keeps changing constantly, and has been of major concern to administration specialists, shareowners and economic examiners all over the globe. These banks are forced to shake up their management structures. This has created a growing interest for more studies that are focused on elements influencing the banking industry. Scholars argue that certain factors have emerged that influence commercial banks accomplishments in different business environment since these factors vary from one region to another. Hussain and Bhatti (2010) argue that this anxiety is directly connected to the beneficial important influence of the countries high economic potential growth. They continue to high lighten how this impact has changed many things in the banking arenas in connection to actions meant to enhance their financial achievements.

This study has been anchored on modern portfolio theory, efficient structure theory, and the market power theory to explain the key determinants of commercial banks performance in developing economies. According to the modern portfolio theory by Harry Markowitz (1950), bank performance is based on the number of assets and portfolio that the bank can use to invest in future opportunities (Hughes, 2002). However, the efficient structure theory indicates that banks need to consider their structures and plans to improve their performance. Analysis of the market power theory reveals that commercial banks performance can only be perfect if the bank management is fully aware of the market dynamics and use well-different products and services to improve their sustainable competitive advantage (Swarnapali, 2014).

In Kenya, Commercial Banks performance depends on various factors such as the availability of capital and the number of customers. Additionally, the bank's performance has been shaped by the ownership structure and the ability of the bank managers to take risks and evaluate various public opportunities (Swarnapali, 2014). This is evident in the management of KCB, Equity Bank as well as Cooperative and ABSA Bank. These banks enjoy high profitability and performance mainly due to their high number of customers and their market power which gives them the leverage to understand the industry dynamics and have stable structures in place to draw new clients while retaining the existing ones (Osoro & Santos, 2018).

1.1.1 Determinants of Financial Performance

The concept of determinants of financial performance refers to the factors that promote the success of a firm and they include factors such as leverage, liquidity, size, as well as the risk and tangibility of the firm (Gischer & Juttner, 2011). Additionally, factors such as

exchange rates, new licensing policies, interest rates, and aggregate demand are very essential macroeconomic indicators in determining the performance of the bank (Greener, 2008).

These factors help promote the performance of the banks severally. For example, banks with high liquidity can pay debts and increase their income without any problems (Heffernan & Fu, 2013). The size of the bank also determines the performance of banks in terms of the customers that the bank has and can serve without struggling. Importantly, banks with good leverage and ability to analyze risks can fully invest in various opportunities leading to their success (Ayele, 2012). Determinants of bank performance such as the capital scope, firm size, and size of credit collection and magnitude of proprietorship concentration as well as the capital adequacy, ownership structure, liquidity and asset quality are important in promoting the productivity of the banks (Alshatti, 2014). The study will include capital adequacy, liquidity management, asset quality as well as bank size and risk management as part of key determinants of bank financial performance.

1.1.2 Financial Performance

Financial performance entails the practices of determining the monetary effectiveness in an organization that is dependent on the operations and policies of the firm (Swarnapali, 2014). The outcomes are shown in the (ROI), (Firm's Return on Investment), (ROA) (Return on Assets), added value, as well as improvement in sales, profitability, institution efficiency and commercial achievement. Financial achievement is measured using key ratios to evaluate the income and the financial position of an organization.

Some of these key ratios are ROA, which is net income ratio to average ratio ROE, that is net income to equity. This is where net income to overall asset is known as ROI (Return on Investment) as explained by Heentingla and Armstrong 2011.

According to Amare (2012), economic productivity is a subjective ration of the levels of efficiency, of the organization in utilizing its prime mode assets of business and how to aid make profits. The sustainability of banks is extensively controlled by its level of financial performance. This is as a result of the fact that the institutions (commercial banks) have to make the essential revenue so as to meet operation costs that are experienced in production as portrayed by (Ongore and Kusa, 2013). In this study, the financial performance measures will include the return on equity and return on assets.

1.1.3 Commercial Banks in Kenya

From analysis of Kenya's banking industry, it is evident that the industry is governed by companies Act, the banking Act and the CBK act especially under the guidelines of the Central Bank of Kenya (CBK) (Abu-Rub, 2012). In late 1995, the liberalization of the sector took place with the CBK being selected as organization tasked with the formulation and implementation of monetary policy, maintaining liquidity, solvency and ensuring that the financial system was properly functional. Currently there are about forty two (42) licensed commercial banks in the country and they are all under the Kenya Bankers Associations (KBA) (Airasian & Gay, 2009).

Moreover, it should be noted that out of the 44 commercial banks, 31 are local and 13 are foreign. Among the local banks, three of the banks have majority of their shares owned by the Government of Kenya and State Corporations, 27 banks and one mortgage finance institution (Abu-Rub, 2012). There is also the Housing Finance which is a lobby for

banking sectors interest (Kithitu et al., 2012). However, the KBA offers a platform to solve matters affecting commercial bank members in the country (Abu-Rub, 2012). Some of the major commercial banks in the country include the Kenya Commercial Bank (1896), Equity Bank (1984), Barclays Bank (1916), Standard Chartered Bank (1911), Cooperative Bank (1872) as well as the Commercial Bank of Africa (1962) and Diamond Trust Bank (1945).

1.2 Research Problem

The financial performance of a firm can be determined in terms of the firm profitability levels, sales growth, market share and current ratios. According to Hillarie (2011) financial performance of banks must also include the gross profit margin, the net profit as well as quick ratio and the ROI (Parker, 2010). However, it should be noted that performance may also be given by increase in sales or of the company's revenue base.

In Kenya, the determinants of the performance of banks have been defined based on a number of parameters. For example, it has been argued that the size of the bank, the number of customers and the risks and asset ratio determine the bank financial performance (Ayele, 2012). However, it should be noted that Kenya's banking industry has been associated with high levels diversity, creativity as well as more effective executive decision-making, and more positive organizational outcomes (Jenster & Soilen, 2013). Importantly, the banking industry is sensitive in nature and it requires well define financial performance measures to sustain its overall success (Haigh, 2006).

In the past, there have been several global, regionally as well as local studies to determine the key determinants of bank financial performance levels. A study done by Kling (2010) in UK to determine bank performance indicated that banks that engage in diverse plans

have positive levels of profitability. This is because diversification provided the firms with a high profitability in the long run (Abu-Rub, 2012). Ayele (2012) noted that the current operational challenges facing most local financial institutions range from regulatory, pressure, changing technology, slow economy to keeping up with the consumer demands and this affects the bank financial performance. A study done by Azam and Siddiqui (2012) in Nigeria also noted that the financial institutions to a greater extent have control over internal factors such as consumer demands unlike the external factors such as regulatory pressures and changing technology. It should be noted that countries have different macro-economic levels and the findings may not apply in some countries.

A local study done by Kithitu et al. (2012) also indicated that to improve the performance of banks in the country, banks must adopt innovative plans and consider the values of their customers. Another study by Serfontein (2010) to determine the impact of commercial bank financial performance on profitability noted that on the operational strategies help promote the company performance. Githii and Mwangi (2018) also noted that the recent developments in the Kenyan banking industry have ushered several changes and they include convenient banking agency and mobile banking, closure of redundant branches, retrenchments, development of diverse channels centered on real-time interbank switch and interest rate capitalization

Based on the above studies, there are few studies that have been conducted to evaluate the key determinants of financial performance of commercial banks in Kenya. Therefore, this study intends to close this gap by investigating and evaluating the key determinants

of performance among Kenyan banks. The researcher will answer the question-What are the key determinants of financial performance of Commercial Banks in Kenya?

1.3 Research Objective

The study's objective was determining the key determinants of performance of Kenyan banks.

1.4 The Value of the Study

1.4.1 Value to Practitioners

The study would be important to the Commercial Bank management because it would assist them in understanding the forces that determine performance and therefore they will be able to be keen on such factors and improve their performance. The Commercial Bank managers would use the study findings to see some of the best strategies they can adopt in improving their financial performance.

1.4.2 Value to Policy Makers

To ensure favorable macroeconomic indicators to boost growth and benefits, the study findings would help the policy makers. For example, the policy makers would use the study results to assist policy formulators in the banking sector mainly in CBK as well as Treasury to develop more advanced policies that can help improve bank performance in the country. This is important in promoting government policies especially in the banking industry.

1.4.3 Value to Scholars/Theory

The study would also benefit various academicians and researchers since it would provide more insight in determining the performance of Banks around the world. Scholars would use it as a reference point in their future studies. The study would also

help students in their daily studies and to provide a theory that will indicate and determine the key determinants of performance of companies within the banking sector. As a result researchers and scholars in the finance, economics as well as banking sector would view this study as an important directory for additional studies in the area.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section is meant to give an overview of previous studies to form the frame work of the study. It starts with the presentation of the theoretical framework, the discussion on determining factors of financial productivity of the banks in developing economies, reviews on imperial literature, presentation on the conceptual framework and finally summarizes the literature review.

2.2 Theoretical Framework

The investigation was directed by the following theories, modern portfolio theory, efficient structure theory and the market power theory. The above theories are discussed in sections below:

2.2.1 Modern Portfolio Theory

Harry Markowitz is credited with the establishment of modern portfolio theory. This theory emerged in the early 1950s, and it examines how properties can be capitalized and how risk can be reduced under a set of assumptions. It is founded on the belief of understanding the market as a whole. It offers a broad background for the exchange of systematic risk and profit. Additionally, the theory argues that risk and return on a spread portfolio rely on local and foreign and economic and financial variables. According to Barad (2013), modern portfolio theory is based on the capability of stakeholders to introduce portfolios that can optimize anticipated returns in regard to market risk. In addition, Barad emphasizes that for a higher reward, risk is inherent. In accordance with the theory, one can come up with a stable set of ideas for the highest likely anticipated outcome for a certain commercial risk.

The effect of the total collection's risk is based and characterized by a venture's threat and outcome hence they should be viewed collectively. This is a main reflection deduced from the theory. It also shows that construction of multiple assets by an investor is likely to optimize outcomes for a certain commercial risk. Berrios (2013) argues that an investor can also construct a portfolio with the lowest possible risk based on the desired extent of expected returns. Founded on the numerical evaluations like variance and correlation, a person's venture's outcome is less significant than its behavior in relation to the entire portfolio.

However, one of the key strengths of the theory is that it covers the value of diversification and encourages managers to adopt diversification models in promoting their financial performance. Despite this, the theory fails to consider the importance of managing expected risk in promoting the financial performance of the firm. Application of the theory assumptions within Commercial banks should include the adoption of risk management plans and include shareholder wealth benefits frameworks. This is important in maintaining strong financial levels of the banks in the long run.

2.2.2 Efficient Structure Theory

This theory argues that commercial banks make high returns considering that they are known to be efficient operational wise. The two defined tactics contained by the theory are, the X-efficiency as well as the Scale –efficiency theory. The X-efficiency approach states that lower prices can make financial institutions more efficient and more gainful. Athanasoglou et al. (2006) explains that these kinds of firms appear to gain more shares in the market, which expand as market-concentration increases, but without underlying association from concentration to productivity. Conversely, the approach of scale stresses

on economic of scale as compared to differences in production technology or management. Through economic scale, larger firms obtain higher profits and lower unit costs. This allows big companies to obtain market-shares that may lead in higher awareness thus increasing profits.

Efficiency in banking sector has emerged as one of the key factor of competitiveness. However, this has been made possible by a multi-dimensional concern vindicated by the existence of definite dimensions and expertise. This generates an entwined and inter-related collections that cannot be diminish nor disregard the value of one over the other. According to Demists, (2013) he argues that the bank need to be trained in the five information collection of its capabilities, entail the aptitude to strengthen the learning process as well as the interactive linkage. Additionally, he argues that the bank should also dominate the intelligence of expectation and choice and depend on human assets. Organizations are in search of the changes of prices to value and to product quantity for efficiency. This eliminates the suggestion that price decrease is no longer the leading factor.

The philosophy is significant to the investigation for the reason that, it reflects share within the marketplace like substitution for efficacy. The theory about Efficiency becomes evident at the point when association of profitability and market share show positive signal. The assumption denoted by this theory is that market concentration contributes to the source of market power.

2.2.3 The Market Power Theory

This theory is linked to Joan Robinson in 1933 who noted in his 1933 book titled-The Economics of Imperfect Competition and noted that the market power theory allow firms

to merge to improve their productivity (Aburime, 2013). The theory also supports the introduction of Structure-Conduct-Performance (SCP) models which indicate that the magnitude of awareness within the finance marketplace, allows increase to possible market control by banking institutions, which is likely to increase their productivity (Beck, Cull& Afeikhena, 2005).

The theory's main assumption is that market power is the firm's ability to profitably increase a good or service's market price above its marginal cost. It is also evident that lack of perfectly competitive markets gives firms a high market power (Demsetz, 2013). Firm with high number of customers enjoy good market power. The reason for this is that a firm with market power can individually influence either the total quantity or the standard market price. Price setters face a downward-sloping demand curve, meaning that as price increases, the demand drops. The lowering of supply resulting from the exercise of market power leads to the creation of an economic deadweight loss that is socially undesirable.

The theory's relevance is that it can help financial firms to use modern market power dynamics to attract their customers. The theory also provides rules that can help in regulating the bank performance. The banking institutions situated in highly rigorous market have higher possibility of adopting non-ethical ways and must be regulated based on the market power models (Treena, 2009). Evidently, the theory considers that market-share impacts the bank's profitability. It postulates that charges can be influenced and increase revenue, but only big firms with distinguished services can do it. These firms are having the power to make non-competitive incomes by exercising market power.

2.3 Determinants of Financial Performance

Firm precise aspects that have impacted the monetary productivity of commercial institutions have been explored by many scholars in different contexts. The reason for this is that inner aspects like management efficacy are key determinants of the accomplishments of an entity. Firms that register good performance are normally characterized by proper management of inner aspects. The aspects may be induced by a firm's management to improve performance. This process has enabled the identification of internal factors influencing performance.

2.3.1 Asset Quality

According to Saunders and Cornett (2015), asset quality comes from the concept of proper management of a financial institution asset. They continue to argue that credit uncertainty is innate in loaning that is the main finance sector. It rises in situations where a debtor evasion on the credit imbursement arrangement. In a situation where a banking organization whose debtor evasions imbursement, it is likely to experience problems in cash flow that ultimately impacts its cash level. Saunders and Cornett, (2015) explains how this eventually destructively effects on productivity and asset through added exact necessities for depraved arrears. Commercial banks generate income from their major asset which is loans.

The productivity of financial firms is determined by the quality of credit collection. The main threat affecting a financial institution is the damages resulting from lawless credits (Swarnpali, 2014). Accordingly, for asset quality, the best proxies are the non-performing loan ratios. It is a main fear that every financial institution should hang onto the quantity of non-performing credits at a diminished rate considering that the productivity of the

institution is impacted by them. In addition, low non-performing credits to overall credits reflect the worthiness of the collection a financial institution. Notably, the better the banks performs the lower the ratio. According to study by Bhattacharyya (2011), when the assets become impaired, the durability of banks is normally at threat. Therefore, it is important for financial institutions to consistently observe reflections of the worth of their capital. This is in regards of over-exposure to precise risk patterns, particularly for the poorly performing loans to ensure profitability of their borrowers.

2.3.2 Bank Size

The bank size is one of the determinants of the financial performance. This is because the bank size determines the asset value and indicates the productivity level of the bank. Several studies have been done and support the view that there is a connection amid bank size and its monetary productivity (Goddard et al; 2004). In fact, the financial productivity of a bank is directly related to bank size. This is in agreement to an investigation done by Goddard, et al, (2004). It is linked to the ideology that the larger the institution in terms of size, the lower the charge of raising gathering its capital, and so the greater the ratios of productivity.

Research shows that direct effect on the monetary productivity of a banking institution is as a result to increase in banks size. This is conquered by study done by Bikker and Hu, (2002); Goddard et al, (2004) bank size assist to reduce bank cost. However, it is significant to recognize that studies done entailed no agreement if a rise in the bank size by amplified capital enables commercial banks to achieve economies of scale. This ultimately translates to the upgraded monetary productivity creating a gap that further evaluation. The scope of the institution that is, commercial bank and also, different

commercial entities in regards of the capital is a very significant determining factor of productivity. The banks with adequate capital are likely to increase their activities in markets with low levels of competition, or extensively in markets where there is full exploitation of resources, and so increasing customer base of the bank positively.

2.3.3 Capital Adequacy

According to Staikouras and Wood (2003), capital influences the activity of commercial banks, both in developing and developed countries. They continue to contend that banks with greater levels of assets record improved monetary outcomes in comparison to their competitors with limited assets/capital. Additionally, they claim that “there exist a direct link between a larger equity and monetary production among EU commercial banks”. There exists an apparent effect of the equity level of commercial banks on the economic productivity of the bank (Abreu & Mendes, 2001). Goddard et al (2004) supports the previous exploration on the direct correlation amid capital to asset proportion and the general revenue attained by the bank.

Adequacy of capital for banking institutions is evaluated by diverse determinants such as the log of total assets (LTA), loans to assets, tax to operating profit before tax, non-interest income to total assets and overhead expenses to total assets. Also, capital adequacy is measured through total revenue to the number of employees, loan loss provisions to total loans and shareholders' equity to total assets. The variables purpose to quantify capital competence of banks from diverse standpoints. The underlying ideology to evaluations is to define the level of held organizational capital, in comparison to equity including different balance sheet operations.

2.3.4 Liquidity Management

The financial productivity of the financial institution is affected by the liquidity of the bank. One amongst the major explanations why commercial organizations are unsuccessful is because of insufficient liquidity. On the other hand, it is significant to recognize that when a financial institution grips an adequate base of liquid capital, then it experiences a chance charge of attaining better outcomes from capitalizing them.

According to Memmel and Raupach (2010), the performance of a commercial bank is positively dependent on liquidity. Additionally, in the period of unsteadiness in the corporate setting, corporate firms will seem to intensify their liquid holdings as a method of justifying themselves from the risk. As such, it is vibrant that there entail an adverse relationship amid the level of cash holdings and the monetary productivity of corporate institutions. However, this phenomenon has been differed by critics who contend that banks with high cash holdings have the ability to conduct their primary tasks easily.

2.3.5 Risk Management

According to Dietrich and Wanzenried (2011), risk management models provide the best framework for improving the bank financial performance. This is because risk management cover the adoption of a risk plan and this is important in regulating financial risks within the bank. Risk management plans are set by banks mainly with the aim of regulating risks and ensuring that the firm does not experience huge losses that can results into bankruptcy. Typically, effective risk management is associated with efficiency in operations. This is because the firm is able to monitor risks and improve its operations plans due to adoption of quality and other control systems in the bank operations (Obamuyi, 2013). As a result, proper utilization of resources is achieved and

this promotes revenues as well as reduces the costs of operations leading to high financial performance in the long run.

2.3.6. Credit/Loan Management

According to Ayele (2012), credit management provides banks with an evaluation and monitoring framework for controlling risks. With good loan management put in place, the bank is able to recover its assets within a short time. This is important in promoting sales, revenues as well as in reducing the costs of operations (Macit, 2011). Importantly, credit management exposes the banks to new ways of screening and evaluating their future performance. This is imperative in improving the overall financial performance and management of all the risks associated with the bank lenders. As a matter of fact, it is important that bank have stable credit management policy to attract new investors and explore new investment opportunities.

2.4 Empirical Literature Review

2.4.1 Global Studies

There are a number of studies that have been done globally to determine the key determinants of financial performance of commercial banks in Kenya. For example, a study done in the United States of America by Athanasoglou and Delis (2015) to investigate how industry-specific, bank-specific and macro-economic profitability determinants of banks, found that all bank-specific determinants, with the exception of size, impact profitability. Additionally, Roman and Tomuleasa (2013) investigated how specific internal and external factors impact bank profitability among the new European Union members establishing that both bank specific factors like capital adequacy, NPL, income and external factors, like GDP growth rate and inflation impact profitability.

However, these studies were done outside African region and included other macro-economic factors in determining the profitability of banks.

Moreover, Obamuyi (2013) evaluated the determining factors of productivity of financial institutions found in emerging nations and narrowed the aim of the research within the financial sector in Nigeria. Regression structure was used in the study on board information achieved from monetary records of twenty financial institutions between 2006-2012. The study found that so as to improve the productivity of financial firms, the following favorable economic conditions should be considered, well-organized administration of expenditures, augmented interest revenue and promising financial circumstances. However, the study only focused on commercial banks within Nigeria and the western African region.

Chinoda (2014) studied the impact of internal factors on bank profitability in Zimbabwe. In this investigation, a sample of five banks, which was random in nature was obtained and secondary data obtained from their reports. By utilizing the general linear regression model, the findings showed that bank size; liquidity, GDP and inflation were positively correlated with profitability (ROA) while operating expenses was negatively correlated with bank profitability among Zimbabwean banks. It was hence recommended that priority should be given to inflation control policies to encourage financial intermediation.

Nzongang and Atemnkeng (2012) evaluated the impacts of absorption to the productivity of Cameroonian financial firms between 1987-1999. This was different Treganna (2009), who employed the absorption proportion of the three biggest firms in United States of America to structure concentration of market whereas Nzongang and Atemnkeng (2000)

employed the Herfindahl Hirschman directory to evaluate market absorption in Cameroon. The outcomes show that to determine bank profitability, market concentration is of paramount importance.

Lipunga, (2014), as well conducted a comparable investigation and emphasized on the financial sector in Malawi. After the reversion ideal was used on a section data extracted from the bank's monetary reports, the investigation deduced that productivity measured by ROA was affected by the size of banks, its management's efficiency and its liquidity. This study was based on a case study of one bank in Malawi and its findings cannot be generalized to other banks in the world.

2.4.2 Local Studies

A study by Central Bank of Kenya (2013) also noted that financial institutions with more cash reserves are thus desirable owing to their capability to effect these basic operations and so earn more funds. However, the study failed to consider how financial performance can be promoted within the complex banking environment (Athanasoglou, et al, 2008). This is because the Central Bank of Kenya; the organization given the mandate of controlling financial institutions usually expects that the firms maintain a definite quantity of liquid assets. Moreover, a study done in Kenya by Ongore and Kusa (2014) explored the moderating impact that ownership structure had on bank performance and determined that moderating impact of the ownership identity on performance from a financial aspect was not substantial but the focus was more on the impact of ownership structure.

Olweny and Shiphoh (2011) carried out an investigation on factors that impact the productivity of financial firms in Kenya's investment financial segment. This

investigation employed a descriptive method through panel data investigation project to achieve its purposes. Yearly monetary records of thirty-eight commercial banks in Kenya between 2002-2008 were extracted from the CBK and investment review of 2009. Later they obtained facts were examined through multiple linear reversion approaches. The examination obtained indicated that utmost all the bank exact aspects entailed a statistically significant effect on productivity, whereas none of the market-based aspects entailed an important influence.

Furthermore, Mbugua and Rotich (2014) studied how intellectual capital impacts performance of NSE listed banks focusing on relational, innovation, human and structural capital. For this investigation, a descriptive design using secondary data for 5 years from 2009 to 2013 was selected. From the investigation, structural capital and innovation capital had an impact on profitability of NSE listed banks. The study then recommended that NSE listed banks should establish strong control over structural and innovation capital, there should be an increase in capital investment allocation to the two elements of intellectual capital to improve profitability.

Rono et al., (2014) established the impact that interest rate spread had on performance of Kenyan listed banks. The investigation adopted a descriptive design using secondary data from annual reports from 2007 to 2012. By utilizing the Pearson product moment correlation, it was found that banks use various interest rate spreads to offset their costs while making a profit. The findings also established that there was a substantial correlation between interest rate spread and ROA, interest spread and ROE, while a weak correlation was found between interest rate spread and non-performing loan.

Tsuma & Gichinga (2016) also did an analysis of the factors influencing bank's performance financially focusing on the National Bank of Kenya and established that capital adequacy, credit risk, rates of interest and inflation had an impact on performance but the focus was on a single bank, that may not reflect the happenings of other banks in the industry. Thus, this study will try to fill the gap by determining the key determinants of performance of Kenyan banks.

2.5. Conceptual Framework

This describes the connection united amid the reliant as well as self-governing variables in the investigation. The financial performance is the dependent variable while the capital value, asset sufficiency and cash controlling are the independent variables. This means that the financial performance keeps changing depending on the asset quality, capital adequacy and liquidity management level in the firm

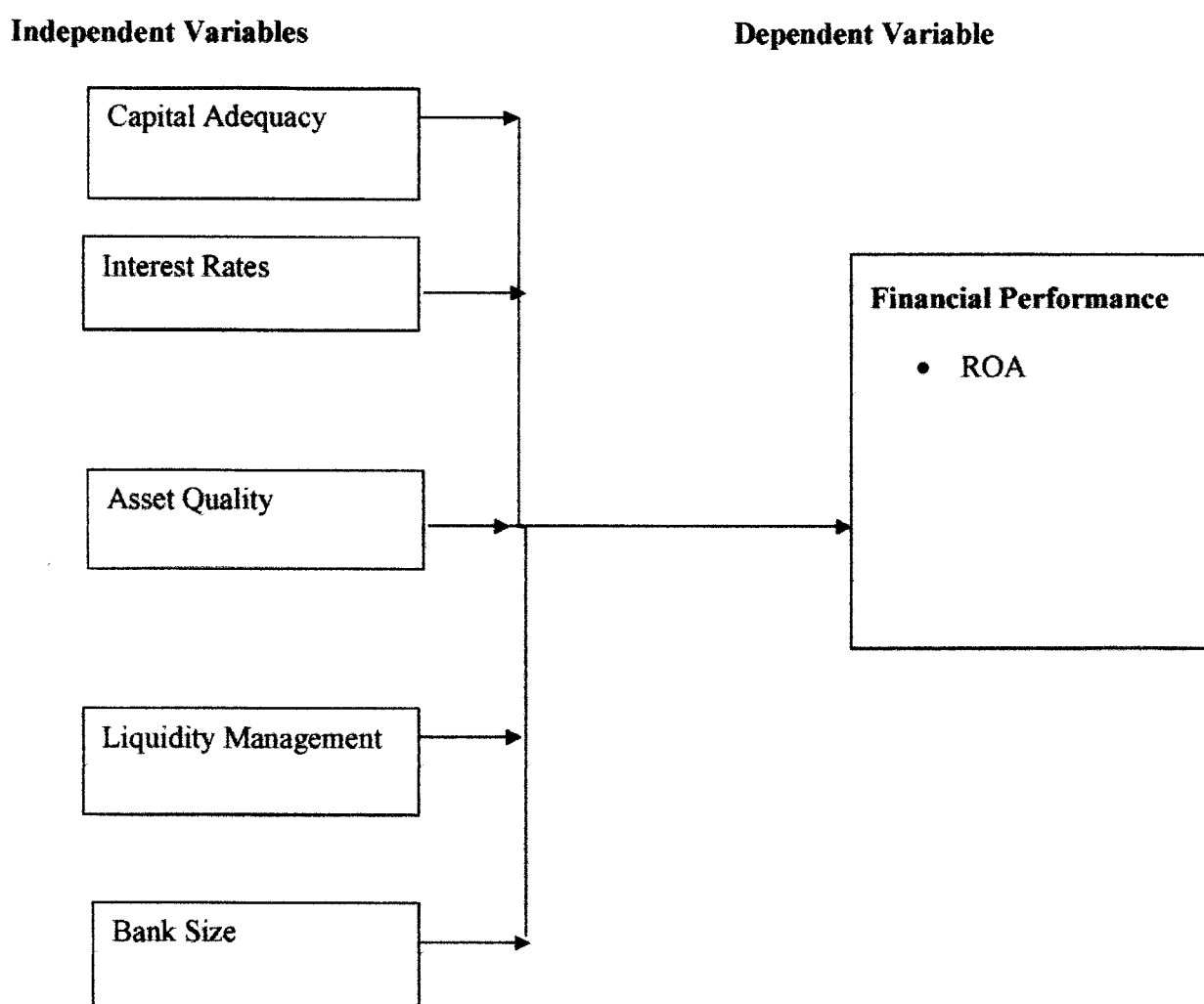


Figure 2.1-Conceptual Model

Source: Author, 2020

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology. The study methodology entails the research design, collection of data and analysis techniques that were adopted during the study. It also included various procedures that were used to guide the study. Notably, this chapter also details the blueprint that was followed in this research to determine the key determinants of performance Kenyan banks.

3.2 Research Design

The researcher used a longitudinal design which is descriptive in nature. According to Copper (2000), a longitudinal study involves designing a study based on repeated observations of the issue in question over a period of time. The researcher adopted the design since it allowed for non-interference with the participants and it covered a period of five years (2014-2019). This helped to evaluate the new changes that have occurred in the banking sector in relations to the topic of study. Since it covered more than a single moment in time, the longitudinal study design allowed the researcher to establish the sequence of factors that help determine the key determinants performance of Kenyan banks. This helped in analyzing and evaluating the main causes of high productivity and success of Banks in the country.

3.3 Population and Sample

The population consisted of a number of Kenyan banks especially within Nairobi. The selection of the banks in Kenya was necessitated by the fact that majority of banks have their headquarters in Nairobi and have their data online and thus it was easy to collect

adequate data by the researcher. The targeted population of this study included the registered commercial banks in the country. According to the CBK there are 44 registered Kenyan banks.

A sample is a selection of the target population from where the data was obtained, summarized, analyzed and inferences on the population is made. A census was chosen since the population could be covered because of its small size. A Census involves studying the entire population and the result of this is that validity of data is enhanced and the findings on all elements are enhanced (Saunders, Lewis & Thornhill, 2009). Additionally it removes the sampling error (Watson, 2001). The population used in this study included all the 42 Kenyan banks. A census was adopted which covered all the 42 commercial banks in Kenya. This helped to promote the validity of the study.

3.4 Data Collection

The researcher used secondary data during the study. This data was obtained from various publications including the annual documents from the Kenyan banks. The secondary data was obtained from statements of the commercial banks and issues related to the key determinants of performance of Kenya banks. The data was also collected from the websites and other online data bases of the Commercial banks in Kenya. The secondary data included information such as company records, financial statements as well as the financial reports from the CBK website. Data was also obtained from 2015 to 2019.

3.5 Data Analysis

In this study, the researcher used quantitative techniques in analyzing the data. The researcher aimed to determine the key determinants of performance of Kenyan banks.

Specifically, the researcher determined the relationship between the key determinants and performance of Kenyan banks. This, the key variables in this study is the determinants of financial power and the performance of the banks.

A model was used in determining the key determinants of performance of Kenyan banks.

The model covered:

$$Y = a + bx_1 + bx_2 + bx_3 + bx_4 + bx_5 + \dots + c + B_3$$

Where Y= Financial Performance

X₁= Capital Adequacy

X₂=Interest Rates.

X₃=Asset Quality

X₄= Liquidity Management

X₅= Bank Size

B₃=Error Factors

Notably, the linear regression model that was adopted in this study and it showed the key determinants performance.

The analytical model measures of the study is shown below

	Meaning	Operationalization of the Study Variable	References
Y	Financial Performance	This was measured in terms of profitability ratios.	Osoro & Santos (2018).

		ROA= $\frac{\text{Net Income}}{\text{Total Assets}}$	
X ₁	Capital Adequacy	= $\frac{\text{Core capital}}{\text{Risk weighted assets}}$	Ayele (2012).
X ₂	Interest Rates	$\frac{\text{Interest income}}{\text{Interest expense}}$	Rono et al. (2014)
X ₃	Asset Quality	= $\frac{\text{Non-performing loans}}{\text{Total Assets}} \times 100$	Obamuyi (2013).
X ₄	Liquidity Management	= $\frac{\text{Liquid assets}}{\text{Total assets}} \times 100$	Ayanda, Christopher & Mudashiru (2013).
X ₅	Bank Size	Natural log of Total Assets	Goddard et al (2004)
B ₃	Error Term		

3.6 Analytical Model

In evaluating the key determinants of financial performance of commercial banks in Kenya, the model adopted covered different variables comprising of independent variables such capital adequacy, liquidity, risk management, asset quality and liquidity

management as well as the dependent variable in terms of the financial performance of the banks.

3.6.1 Diagnostic Tests

The data collected was cleaned and coded as well as systematically analyzed using SPSS model. The quantitative data helped to determine the measures of central tendency such as percentages, frequency, mode and mean. The regression analysis model was used to determine the key determinants of financial performance of commercial banks in Kenya. The relationship between the dependent and independent variable were shown using linear regression model, especially by adopting normality test as well as multicollinearity test. The study included auto-correlation test with a specific test value of $p < 0.05$. This helped to determine the relationship among the variables.

3.6.2 Test of Significance

The coefficient of determination (R^2) was used to measure the extent to which the variation in the key determinants of financial performance of commercial banks in Kenya. The study used F-Statistic and t-statistics to compute a 95% confidence level to test the key determinants of financial performance of commercial banks in Kenya. This helped to promote the validity of the study. Notably, the use of 95% confidence level, the t and F-test helped to determine the statistical significance of this research.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This section details the analysis, findings and interpretation of the secondary data collected from the CBK and individual banks websites. The aim of the study was establishing determinants of financial performance of commercial banks in Kenya. The independent variables for the study were capital adequacy, interest rate, asset quality, liquidity management and bank size while the dependent variable was the financial performance given by ROA. Regression analysis was adopted to determine the relation between the variables of study in relation to the study's objectives. In ascertaining the suitability of the analytical model, ANOVA was applied. The findings were illustrated in tables and figures.

4.2 Response Rate

This study aimed at collecting data from the 42 commercial banks operating in Kenya as at 31st December 2019 for 5 years (2015 to 2019). Data was obtained from 38 out of the 42 banks giving a response rate of 90.48% which was considered adequate.

4.3 Descriptive Analysis

The descriptive statistics presented is a representation of the mean, minimum and maximum values of variables of the study together with the standard deviations. Table 4.1 below displays the qualities of each variable. An output of each variable was extracted using SPSS software for a five-year period (2015 to 2019) on an annual basis.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	190	-.2445	.0703	.006766	.0379357
Capital adequacy	190	-.2201	2.1258	.225593	.2178859
Interest rate	190	.1723	10.3969	2.539910	1.3407126
Asset quality	190	.0008	38.5539	.369657	2.7922283
Liquidity management	190	.0004	19.4870	.529054	2.7844889
Bank size	190	3.2958	20.6163	17.348099	2.6693276
Valid N (listwise)	190				

Source: Research Findings (2020)

4.4 Diagnostic Tests

The data collected was subjected to diagnostic tests. The study presumed a significance level of 5% or 95% confidence interval so as to make variable deductions on the data adopted. Diagnostic tests were useful for ascertaining the falsity or truth of the data. Therefore, the nearer to 100% the confidence interval, the more accurate the data used is presumed to be. In this case, the tests conducted were multicollinearity test, normality test and autocorrelation test.

4.4.1 Multicollinearity Test

Multicollinearity can be defined as a statistical state where more than one predictors are highly correlated in a multiple regression model. It is an unwanted situation for independent variables to have a strong correlation. A combination of variables is said to exhibit high Multicollinearity in case there is one or more exact linear correlation among the study variables.

Table 4.2: Multicollinearity Test

Variable	Collinearity Statistics	
	Tolerance	VIF
Capital adequacy	0.376	2.659
Interest rate	0.388	2.577
Asset quality	0.366	2.732
Liquidity management	0.398	2.513
Bank size	0.372	2.688

Source: Research Findings (2020)

VIF value and Tolerance of the variable were utilized where the values below 10 for VIF and values more than 0.2 for Tolerance imply no Multicollinearity. From the results, all the variables had a VIF values <10 and tolerance values >0.2 as illustrated in table 4.2 suggesting that no Multicollinearity.

4.4.2 Normality Test

Shapiro-wilk test and Kolmogorov-Smirnov test were utilized for normality testing. The level of significance in the study was 5%. The outputs of the test are depicted in Table 4.3. The null hypothesis is that the data is distributed normally. Since the p value in both tests of all the variables is greater than the α (0.05), then the null hypothesis is not rejected. Hence the data series of all the variables is normally distributed.

Table 4.3: Normality Test

ROA	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Capital adequacy	.181	190	.264	.896	190	.792
Interest rate	.176	190	.264	.892	190	.784
Asset quality	.173	190	.264	.918	190	.822
Liquidity	.180	190	.264	.894	190	.790
Bank size	.188	190	.264	.892	190	.788

a. Lilliefors Significance Correction

Source: Research Findings (2020)

4.4.3 Autocorrelation Test

To test for autocorrelation, Durbin-Watson statistic was applied which gave an output of 2.225 as displayed in Table 4.4. The Durbin-Watson statistic ranges from point 0 and point 4. If there exist no correlation between variables a value of 2 is shown. If the values fall under point 0 up to a point less than 2, this is an indication of a positive autocorrelation and on the contrast a negative autocorrelation exist if the value falls under point more than 2 up to 4. As a common rule in statistics, values falling under the range 1.5 to 2.5 are considered relatively normal whereas values that fall out of the range raise a concern. Field (2009) however, opines that values above 3 and less than 1 are a sure reason for concern. Therefore, the data used in this panel is not serially autocorrelated since it meets this threshold.

Table 4.4: Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.696 ^a	.484	.470	.0276231	2.225

a. Predictors: (Constant), Bank size, Asset quality, Capital adequacy, Interest rate, Liquidity management
b. Dependent Variable: ROA

Source: Research Findings (2020)

4.5 Correlation Analysis

Correlation analysis establishes whether there exists an association among two variables. The association falls between a perfect positive and a strong negative correlation. This study utilized Pearson correlation to analyze how ROA and the selected independent variables are related. The study used a confidence interval of 95%, as it is most

commonly used in social sciences. A two tailed test was utilized. Table 4.5 shows the correlation analysis outcome.

Existence of a weak positive and statistically significant correlation ($r = .170$, $p = .019$) between capital adequacy and financial performance was revealed. Further results discovered a weak positive and significant correlation between interest rate and commercial banks' performance as demonstrated by ($r = .304$, $p = .000$) existed. Asset quality was noted to exhibit a moderate and g=egative correlation with financial performance as evidenced by ($r=-.476$, $p= .000$). Bank size was noted to have a weak positive and substantial association with performance as evidenced by ($r = .207$, $p = .004$). Liquidity management exhibited a positive relationship with financial performance but the association was not statistically significant as evidenced by a p value above 0.05.

Table 4.5: Correlation Analysis

		ROA	Capital adequacy	Interest rate	Asset quality	Liquidity management	Bank size
ROA	Pearson Correlation	1					
	Sig. (2-tailed)						
Capital adequacy	Pearson Correlation	.170*	1				
	Sig. (2-tailed)	.019					
Interest rate	Pearson Correlation	.304**	-.005	1			
	Sig. (2-tailed)	.000	.943				
Asset quality	Pearson Correlation	-.476**	.140	-.080	1		
	Sig. (2-tailed)	.000	.055	.272			
Liquidity management	Pearson Correlation	.049	-.161*	-.281**	.031	1	
	Sig. (2-tailed)	.505	.026	.000	.673		
Bank size	Pearson Correlation	.207**	.141	.447**	-.115	-.863**	1
	Sig. (2-tailed)	.004	.052	.000	.113	.000	

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).
 c. Listwise N=190

Source: Research Findings (2020)

4.6 Regression Analysis

At significance level of 5% a regression analysis was conducted between financial performance and the five independent variables selected for this study. The F critical value was compared against the F calculated.

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.696 ^a	.484	.470	.0276231	2.225

a. Predictors: (Constant), Bank size, Asset quality, Capital adequacy, Interest rate, Liquidity management
b. Dependent Variable: ROA

Source: Research Findings (2020)

From the output in Table 4.6, the R-square value was 0.484, implying that 48.4% of the deviations in financial performance of banks is as a result of variations in capital adequacy, interest rate, asset quality, liquidity management and bank size. Other factors not incorporated in the model are attributed to 51.6% of the changes in bank's performance. The R value of 0.696 represents the relationship between the study variables and it shows that there exists a strong relationship between the selected independent variables and financial performance among banks in Kenya.

Table 4.7 provides the outcomes of the ANOVA; the essence of F-test was to establish the model's significance. The formulae for calculating the critical value for the F test is;

$$F = (SSE_1 - SSE_2 / m) / SSE_2 / n-k$$

Where;

SSE = Residual sum of squares,

m = No. of restrictions

k = Number of independent variables.

A critical value of 2.46 was obtained from the F-Test tables. The F statistic indicated in the study findings is more than the critical value, thus the whole model is significant to predict financial performance.

Table 4.7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.132	5	.026	34.492	.000 ^b
	Residual	.140	184	.001		
	Total	.272	189			

a. Dependent Variable: ROA

b. Predictors: (Constant), Bank size, Asset quality, Capital adequacy, Interest rate, Liquidity management

Source: Research Findings (2020)

To ascertain the significance of each variable individually in this research as a predictor of the performance of banks in Kenya it was important for t-test to be employed. P-value was utilized to indicate the significance of the relationship between the response and the predictor variables. Confidence level at 95% and value of p below 0.05 was understood as an index of statistical significance of the concepts. Therefore, a p-value more than 0.05 depicts an insignificant variable. The outcomes are demonstrated in table 4.8.

Table 4.8: Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-.186	.028		-6.631	.000
	Capital adequacy	.045	.009	.256	4.709	.000
	Interest rate	.005	.002	.173	2.834	.005
	Asset quality	-.006	.001	-.443	-8.129	.000
	Liquidity management	.010	.001	.739	6.798	.000
	Bank size	.010	.002	.680	5.806	.000

a. Dependent Variable: ROA

Source: Research Findings (2020)

The coefficients are used to indicate size and direction of the relation that the independent and the response variable have. The T values were applied to establish how significant the relation between the independent variables had to the dependent variable. The values obtained are contrasted to the critical values. A confidence interval of 95% and a two tailed T test critical value of ± 2.04523 was obtained from the T test tables. A T test value that lies out of this range is significant.

The results revealed that capital adequacy, interest rate, liquidity management and bank size have positive and significant influence on financial performance. Implication of this is that a unit increment in capital adequacy, interest rate, liquidity management or bank size will result to an increase in financial performance by 0.045, 0.005, 0.010 and 0.010 respectively. The findings also revealed that asset quality has a negative and significant influence on financial performance. This implies that if asset quality was to be increased by 1 unit, performance would decrease by 0.006. The constant coefficient -0.186 implies that when the five-selected independent variables have a zero value, financial performance would be equal to the figure.

The regression equation below was thus estimated:

$$Y_1 = -0.186 + 0.045X_1 + 0.005X_2 - 0.006X_3 + 0.010X_4 + 0.010X_5$$

Where;

Y_1 = Return on Assets

X_1 = Capital adequacy

X_2 = Interest rate

X_3 = Asset quality

X_4 = Liquidity management

X_5 = Bank size

4.7 Interpretation and Discussion of Results

The researcher studied the determinants of commercial banks' financial performance. Capital adequacy, interest rate, asset quality, liquidity management and bank size were the predictor variables in this study while performance of banks was given by ROA which was the dependent variable. The adequacy of the overall model in predicting performance was examined. The influence of each predictor variable on the dependent variable was also examined with respect to strength and direction.

From the results of Pearson correlation, the study found that capital adequacy and interest rates have a positive and statistically substantial correlation with financial performance. Further a negative and significant correlation between asset quality and commercial banks' performance existed. Bank size was found to have a positive and significant association with performance. Only liquidity management was found to have a positive but insignificant link with banks' performance.

The independent variables from the model summary revealed that: Capital adequacy, interest rate, asset quality, liquidity management and bank size explains 48.4% of variations in the dependent variable as shown by R square which derives an implication that other factors not considered in the model explain the 51.6% of variations in performance. The model was found fit at 95% confidence level because the F-value is 34.492 and the p value is less than 0.05. This signifies that the model adopted is appropriate for predicting and explaining how the independent variables affect commercial banks' performance. This implies that capital adequacy, interest rate, asset quality, liquidity management and bank size are good predictors of financial performance.

The model coefficient results showed that there existed a significant positive influence of capital adequacy on banks performance ($\beta=0.045$ and P value <0.05). This implies that a unit increase in capital adequacy leads to an increase in banks performance by 0.045. The findings further showed that there was a significant positive relationship between interest rate and banks performance ($\beta=0.005$ and P value < 0.05). This implies that a unit increase in interest rate would lead to an increase in banks profitability by 0.005. Likewise, the results of the study showed that there was a significant positive relationship between liquidity management and banks performance ($\beta=0.010$ and P value < 0.05), thus a unit increase in liquidity management would lead to an increase in banks performance by 0.010. Additionally, the results showed the existence of a significant positive relationship between bank size and performance ($\beta=0.010$ and P value < 0.05). This signifies that a unit increase in bank size would lead to an increase in banks performance by 0.010. Asset quality exhibited a negative influence in performance of

banks ($\beta=-0.006$ and P value < 0.05). This implies that if the level of NPL increase by 1 unit, performance of banks would decrease by 0.006.

This study agrees with a study done in the United States of America by Athanasoglou and Delis (2015) that investigated the impact of industry-specific, bank-specific and macro-economic determinants of commercial banks profitability and established that all bank-specific determinants influence banks profitability. In addition, Roman and Tomuleasa (2013) evaluated the effect of specific internal and external factors on profitability of the banks in the new European Union member states and established that both bank specific factors like capital adequacy, NPL, income and external factors, like GDP growth rate and inflation affect commercial banks profitability.

The study agrees with one done by Chinoda (2014) who explored the internal factors that influence bank profitability in Zimbabwe. The study sampled five commercial banks, which were randomly selected and used secondary data from the banks financial reports. Using the general linear regression model the study found that size of the bank; liquidity, gross domestic product and inflation had a positive correlation with profitability (ROA) while operating expenses had a negative association with profitability of commercial banks in Zimbabwe.

The study findings also concur with that conducted by Rono, Wachilonga and Simiyu, (2014) who also assessed the relationship of interest rate spread on the performance of Kenyan quoted banks. The study employed a descriptive design and secondary from published annual reports from the year 2007 to 2012. Using the Pearson product moment correlation the study found that commercial banks adopt different interest rate spreads to

cover their costs and earn profit. The research findings also found that there was a significance correlation between interest rate spread and ROA, interest spread and ROE.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The main goal of the study was to establish the determinants financial performance of Kenyan commercial banks. This chapter gives an overview of the results from the previous chapter, conclusion, limitations faced during the study. Moreover, it recommends policies that policy makers can use. Additionally, the chapter gives recommendations for future researchers.

5.2 Summary of Findings

The aim of the research was to ascertain determinants of performance among banks in Kenya. To conduct the study, five independent variables were selected from a critical review of literature. The five variables were namely capital adequacy as given by the ratio of core capital to risk weighted assets, interest rate given as the ratio of interest income to interest expense, asset quality given as ratio of NPL to total loans, liquidity management given as the ratio of liquid assets to total assets and bank size given as the natural log of total assets. Financial performance was the response variable that the study intended to explain and it was be given by return on assets. The researcher reviewed available theoretical foundations and empirical reviews to get an understanding on the generally accepted relationship among the selected dependent and independent variables. From this review, a conceptual framework was developed that hypothesized the expected association between the study variables.

Descriptive research design was employed. All the 42 banks as at December 2018-year end comprised the population of this study and from this, data was obtained from 38 banks giving a response rate of 90.48%. Data secondary in nature was acquired from CBK and individual banks financial reports for a period of 5 years spanning 2015 to 2019 was used. The researcher carried out descriptive, correlation analysis as well as regression analysis. So as to confirm that the data is fit for analysis the researcher transformed the data using natural logarithms and conducted diagnostic tests to make sure that the data has the required characteristics before conducting inferential statistics. Regression analysis was applied in testing the strength of the association between the study variables and to test both the model's significance and individual parameters. SPSS software version 23 was used to carry out the analysis.

Pearson correlation revealed that capital adequacy and interest rates have a positive and statistically substantial correlation with financial performance. Further a negative and significant correlation between asset quality and commercial banks' performance existed. Bank size was found to have a positive and significant association with performance. Only liquidity management was found to have a positive but insignificant link with banks' performance.

The coefficient of determination also known as the R square shows the disparities in the response variable triggered by variations from the predictor variables. From the results, R square was found to be 0.484, a revelation that 48.4% of the changes in performance stems from variations in capital adequacy, interest rate, asset quality, liquidity management and bank size. Alternative factors beyond those in the model justify for 51.6% of these changes in financial performance. The findings showed a strong

correlation between the chosen variables and the performance of banks ($R=0.696$). Results from the ANOVA test showed that the F statistic was at 5% significance level and a $p=0.000$ rendering the model appropriate for providing an explanation of the relation between the variables studied.

The results further revealed that capital adequacy, interest rate, liquidity management and bank size have positive and significant influence on financial performance. Implication of this is that a unit increment in capital adequacy, interest rate, liquidity management or bank size will result to an increase in financial performance by 0.045, 0.005, 0.010 and 0.010 respectively. The findings also revealed that asset quality has a negative and significant influence on financial performance. This implies that if asset quality was to be increased by 1 unit, performance would decrease by 0.006. The constant coefficient - 0.186 implies that when the five-selected independent variables have a zero value, financial performance would be equal to the figure.

5.3 Conclusion

The findings of this study show that the performance of Kenyan banks is significantly impacted by capital adequacy, interest rate, asset quality, liquidity management and bank size. This research shows that an increment in a unit in capital adequacy, interest rate, liquidity management and bank size significantly increases the performance of commercial banks while a unit increase in credit risk significantly decreases performance of banks. This implies that a higher level of NPLs in relation to total loans have a significant adverse effect on bank's ROA.

The conclusion of this study is that the independent variables selected for this study (capital adequacy, interest rate, asset quality, liquidity management and bank size) largely have a notable influence on the performance of banks in Kenya. The conclusion that these variables have a significance impact on the performance of banks given the p value in anova summary is hence correct. The finding that 48.4% of the variations in the response variable are from the five factors listed implies that the 51.6% variations result from other factors outside the model.

This study agrees with the findings of Lipunga, (2014) who conducted a comparable investigation and emphasized on the financial sector in Malawi. After the reversion ideal was used on a section data extracted from the bank's monetary reports, the investigation deduced that productivity measured by ROA was affected by the size of banks, its management's efficiency and its liquidity.

This study further concurs with Tsuma and Gichinga (2016) who also analyzed the factors that influence the bank's performance in financial perspective with focus on National Bank of Kenya and found that capital adequacy, credit risk, inflation and interest rates influenced financial performance but the study focused on a single commercial bank, which may not be representative of the whole commercial banks in the country.

5.4 Recommendations of the Study

Leveraging on the study findings, below recommendations have been drawn. A positive relationship between financial performance and capital adequacy position was found to exist in this study. Some of the recommendations of this study that will enable policy

change include: a heavy investment by banks in capital adequacy since it will improve the performance of the banks. It is the responsibility of the Government through the CBK to formulate policies that will create an enabling environment for commercial banks to operate and increase their capital adequacy as this will favor growth of the economy.

The findings showed that a positive relationship is existent between performance and interest rate. This means that an increase in interest income relative to interest expense have a significant positive influence on financial performance. The recommendation is that banks' management and directors should increase their interest income by formulating policies aimed at enhancing interest bearing assets while at the same time reducing interest expense as this will directly influence performance of the banks.

The study recognized that there exists a negative substantial influence of asset quality on performance of banks. Thus, the study findings were that an increase in a bank's NPL's relative to total loans will significantly influence financial performance and in a negative way. It is recommended that policy makers should prioritize credit risk when crafting policies to enhance ROA. It can also be recommended to financial institutions, and their boards that credit risk should be considered when carrying out strategic management practices to boost profitability. Thus, it is necessary to adopt sufficient measures by managers of these banks to raise their performance by reducing the level of NPLs in their books. Commercial banks in Kenya should work on increasing their asset quality by undertaking measures such as stringent vetting of customers and other controls.

The study showed that a positive relationship exists between financial performance and liquidity position. This study recommends that a comprehensive assessment of commercial banks immediate liquidity position should be undertaken to ensure the banks

are operating at sufficient levels of liquidity that will lead to improved financial performance. This is because a firm's liquidity position is of high importance since it influences the firm's current operations.

The study found a positive relation between performance bank size. It hence recommends that banks' management and directors should concentrate on expanding their asset base by instituting policies that would enlarge the banks' assets since this will eventually directly impact performance of the bank. From the findings of the study, banks with bigger asset base are predicted to have better performance better than compared to smaller banks hence banks should grow their asset base.

5.5 Limitations of the Study

This study focused on some factors that are hypothesized to influence performance of banks in Kenya. Specifically, the study focused on five explanatory variables. In reality however, there are other variables that are likely to influence performance some which are internal such as management efficiency and leverage while others are not under the control of management such as economic growth exchange rates, balance of trade, and unemployment rate among others.

The study adopted the analytical approach which is highly scientific. The research also disregarded qualitative information which could explain other factors that influence commercial banks' performance. Qualitative methods such as focus group discussions, open ended questionnaires or interviews can help develop more concrete results as they help capture information that is hardly captured in quantitative analysis.

The research concentrated on 5 years (2015 to 2019). It is not certain whether the findings would hold for a longer time frame. It is also unclear as to whether similar outcomes would be obtained beyond 2019. The study should have been executed over a longer time frame in order to incorporate major forces such as booms and recession.

This study focused on commercial banks in Kenya. There are however other firms in the financial sector that were not taken into account yet their performance is also influenced by the selected determinants. A case in point is the 12 microfinance banks regulated by the CBK. There are also others whose regulations are not under the jurisdiction of the Central Bank but they are also key players in the sector such as SACCOs which can either be deposit taking or non-deposit taking.

To complete the analysis of the data, multiple linear regression model was used. Because of the limitations involved when using the model like erroneous and misleading results resulting from a change in variable value, it would be impossible for the researcher to generalize the findings with accuracy. In case of an addition of data to the regression model, the model may not perform as per the previous.

5.6 Suggestions for Further Research

A suggestion is given that more research ought to include a qualitative analysis of the determinants of banks performance in Kenya. That study would deal with interviewing of vital respondents in the banks and this would reveal concealed insights into the fine detailed relationship between selected internal determinants and performance of commercial banks.

The study did not exhaust all the independent variables influencing performance of Kenyan commercial banks and a recommendation is given that more studies are carried out to constitute other variables for instance ownership structures, industry practices, growth opportunities, political stability and age of the firm. Determining the impact of each variable on financial performance shall enable the policy makers to understand the tools that can be used to control performance.

The research only focused on the commercial banks. The study's recommendations are that further studies be carried out on other institutions in Kenya. Future studies can also focus on how the selected determinants influence other aspects other than performance such as credit accessibility by those excluded from traditional banking, poverty eradication and overall economic growth.

The attention of this study was drawn to the latest five years because it was the readily available information. Subsequent studies may cover big time frame like ten or twenty years which can be very impactful on this study by either complementing or disregarding the findings of this study. The advantage of a longer study is that it will enable the researcher to capture effects of business cycles such as booms and recessions.

Finally, this study was based on a multiple linear regression model, which have its own limitations such as erroneous and misleading results resulting from a change in variable value. Future researchers should focus on other models like the Vector Error Correction Model (VECM) in exploring the various relations between selected determinants and financial performance.

REFERENCES

- Aburime, U. (2013). Determinants of bank profitability: company level evidence from Nigeria.
- Ali, K., Akhtar, M. F., & Ahmed, H. Z. (2011). Bank-specific and macroeconomic indicators of profitability-empirical evidence from the commercial banks of Pakistan. *International Journal of Business and Social Science*, 2(6), 235-242.
- Alshatti, A. S. (2014). The effect of the liquidity management on profitability in the Jordanian commercial banks, *International Journal of Business and Management*, 10(1), 62
- Amare, B. T. (2012). Determinants of commercial banks profitability: empirical evidence from the commercial banks of Ethiopia, *MBA Thesis*, Addis Ababa, University.
- Athanasoglou, P., Brissimis, S & Delis, M (2008), Bank-specific, industry-specific and macroeconomic determinants of bank profitability, *Journal of International Financial Markets, Institutions, and Money*, 18(1): 121-36
- Ayanda A. M., Christopher E. I. & Mudashiru M. A. (2013). Determinants of banks' profitability in developing economy: evidence from Nigerian banking industry. *Interdisciplinary Journal of contemporary research in business*, 4(1): 55-181
- Ayele, H.N (2012). Determinants of Bank Profitability: An Empirical Study on Ethiopian Private Commercial Banks, *Unpublished MBA Project*, Addis Ababa University.
- Azam, M., & Siddiqui, S. (2012). Domestic and Foreign Banks' Profitability: Differences and Their Determinants. *International Journal of Economics and Financial Issues* 2(1), 33-40.

- Central Bank of Kenya (2019). Bank Supervision Annual Report, Kenya. *Bank Supervision Annual Report*, CBK
- Dietrich, A. & Wanzenried, G., (2011). Determinants of bank profitability before and during the crisis: Evidence from Switzerland, *Journal of International Financial Markets, Institutions and Money*, 2, 307–327
- Ekimov, A. V. (2017). The Profitability and Risk Effects of Russian Banking Institutions' Involvement in Bancassurance: Merger Simulation Methodology. *Ekonomika (Economics)*, 96(3), 56-72.
- Githii, W., & Mwangi, M. (2018). Effect of Technology Based Financial Innovations on Non-Interest Income of Commercial Banks in Kenya. *European Scientific Journal, ESJ*, 14(7).
- Gischer, H., & Juttner, J. D. (2011). *Profitability and Competition in Banking Markets: An Aggregative Cross-Country Approach*.
(www.econ.mq.edu.au/staff/djjuttner/BankProfit1.pdf)
- Heentigala, K. & Armstrong, A. (2011). The Impact of Corporate Governance on for Performance in Unstable Economic and Political Environment: *Evidence from Sri-Lanka*.
- Hussain, H & Bhatti, G.A. (2010). Evidence on Structure Conduct Performance Hypothesis in Pakistani Commercial Banks. *International Journal of Business and Management*. 5(9): 174-187.
- Khrawish, HA (2011). 'Determinants of Commercial Banks Performance: Evidence from Jordan', *International Research Journal of Finance and Economics*, issue 81.

- Macit, F. (2011). Bank Specific and Macroeconomic Determinants of Profitability: Evidence from Participation Banks in Turkey. *Economics Bulletin*, 32(1).
- Maina, A. N. (2016). *Effect of Lending Practices on Financial Performance of Commercial Banks in Kenya: A Survey of Selected Banks within Nairobi* (Doctoral dissertation, United States International University-Africa).
- Makkar A. & Singh S. (2013). Analysis of the Financial Performance of Indian Commercial Banks: A Comparative Study. *Indian Journal of Finance*, 7(1): 41-49
- Naceur, S.& Goaid, M. (2010). The Determinants of Commercial Bank Interest Margin and Profitability: Evidence from Tunisia, *Under Review at the Journal of Frontiers in Economics and Finance* Vol.5, No. 1, pp 106-130.
- Njogu, G. K., Njeru, A., & Olweny, T. (2017). Influence of Technology Adoption on Credit Access among Small Holder Farmers: A Double-Hurdle Analysis.
- Obamuyi, T. M. (2013). An analysis of the deposits and lending behaviors of banks in Nigeria. *International Journal of Engineering and Management Sciences*, 1(1):46-54.
- Osoro, J., & Santos, R. (2018). 4. The Banking Sector in East Africa-Responding to Market Shocks. *Banking in Africa*, 99
- Podder B. (2012). Determinants of profitability of private commercial banks in Bangladesh: An empirical study. *A thesis for a Professional Master in Banking and Finance*, Asian Institute of Technology, Thailand

- Rasiah, D. (2010). Review of Literature and Theories on Determinants of Commercial Bank Profitability, *Journal of Performance Management*, 23, 23-49.
- Siddiqui M. A. & Shoaib A. (2011). Measuring performance through capital structure: Evidence from banking sector of Pakistan. *African Journal of Business Management*, 5(1): 1871-1879.
- Sufian F. & Chong R. R. (2008). Determinants of bank profitability in developing economy: Empirical evidence from the Philippines. *Asian Academy of Management Journal of accounting and finance*, 4(1): 91-112.
- Swarnapali, R.M.N.C. (2014). Firm Specific Determinants and Financial Performance of Licensed Commercial Banks in Sri Lanka, *Proceedings of the 3rd International Conference on Management and Economics, 26-27 February 2014*, Faculty of Management and Finance, University of Ruhuna, Sri Lanka.

APPENDICES

Appendix I: List of Commercial Banks in Kenya

1. ABSA Bank Kenya Plc
2. Access Bank(Kenya) PLC
3. African Banking Corporation Limited
4. Bank of Africa Kenya Limited
5. Bank of Baroda(Kenya) limited
6. Bank of India
7. Charter house Bank Limited
8. Chase Bank(K) limited
9. Citibank N.A Kenya
10. Consolidated Bank of Kenya
11. The Cooperative Bank of Kenya
12. The Credit Bank Limited
13. Development Bank of Kenya
14. Diamond Trust Bank of Kenya
15. DIB Bank Kenya Limited
16. Eco Bank Kenya Limited
17. Equity Bank of Kenya Limited
18. Family Bank Limited
19. First Community Bank Limited
20. Guaranty Trust Bank(K) Limited
21. Guardian Bank Limited

22. Gulf African Bank Limited
23. Habib Bank A.G Zurich
24. I & M Bank Limited
25. Imperial Bank Limited
26. Jami Bora Bank Limited
27. KCB Bank Kenya Limited
28. Mayfair CIB Bank Limited
29. Middle East Bank (K) limited
30. M-Oriental Bank Limited
31. National Bank of Kenya Limited
32. NCBA Bank Kenya PLC
33. Paramount Bank Limited
34. Prime Bank Limited
35. SBM Bank Kenya Limited
36. Sidian Association Bank Limited
37. Spire Bank Limited
38. Stanbic Bank Kenya Limited
39. Standard Chartered Bank Kenya Limited
40. UBA Association Kenya Bank
41. Victoria Commercial Bank Limited

Source: Central Bank of Kenya (2020).

Appendix II: Research Data

Bank	Year	ROA	Capital adequacy	Interest rate	Asset quality	Liquidity management	Bank size
ABC Bank	2015	0.0081	0.1645	1.8560	0.1426	0.0544	16.9342
	2016	0.0029	0.1528	1.5702	0.1566	0.0659	16.9451
	2017	0.0065	0.1560	0.9304	0.1829	0.0992	17.0576
	2018	0.0004	0.1844	1.7073	0.1989	0.0633	17.1451
	2019	0.0023	0.1538	1.6797	0.1490	0.0750	17.1964
Bank of Africa	2015	-0.0148	0.1639	1.6619	0.2325	0.0859	18.0537
	2016	0.0002	0.1616	1.8654	0.2606	0.1142	17.8408
	2017	0.0012	0.1578	1.4373	0.2816	0.0951	17.8080
	2018	0.0035	0.1602	1.5360	0.3383	0.2023	17.7090
	2019	-0.0464	0.1083	1.5169	0.4139	0.2103	17.5996
Bank of Baroda	2015	0.0297	1.9617	1.9546	0.0754	0.0475	18.0376
	2016	0.0355	0.3053	2.0855	0.0846	0.0489	18.2332
	2017	0.0408	0.3229	2.2367	0.0586	0.0455	18.3812
	2018	0.0319	0.3466	2.2226	0.0882	0.0519	18.6278
	2019	0.0286	0.3274	1.9555	0.0828	0.0547	18.7805
Barclays Bank	2015	0.0349	0.1840	5.1866	0.0420	0.0755	19.2998
	2016	0.0285	0.1786	4.8594	0.0521	0.0515	19.3751
	2017	0.0255	0.1803	5.0347	0.0556	0.0602	19.4197
	2018	0.0228	0.1638	4.1112	0.0610	0.0723	19.6003
	2019	0.0199	0.1667	3.9544	0.0560	0.0770	19.7397
Bank of India	2015	0.0263	0.4230	1.9353	0.0202	0.0362	17.5571
	2016	0.0343	0.4574	2.2747	0.0139	0.0335	17.6829
	2017	0.0369	0.5397	2.3862	0.0207	0.0391	17.8521
	2018	0.0309	0.4392	2.1999	0.0713	0.0340	17.9537
	2019	0.0374	0.4842	2.2180	0.0936	0.0427	17.9514
Citibank	2015	0.0386	0.2832	4.7301	0.0580	0.1110	18.2945
	2016	0.0332	0.2637	6.5773	0.0192	0.0672	18.4534
	2017	0.0398	0.2555	6.2469	0.0368	0.0835	18.4028
	2018	0.0369	0.2764	5.8565	0.0162	0.0860	18.2656
	2019	0.0304	0.2715	6.8401	0.0257	0.1219	18.3858
Commercial Bank of Africa	2015	0.0167	0.1792	1.9533	0.1059	0.0810	19.1891
	2016	0.0287	0.1845	1.8652	0.0745	0.1344	19.2507

Bank	Year	ROA	Capital adequacy	Interest rate	Asset quality	Liquidity management	Bank size
	2017	0.0231	0.1732	1.9883	0.0831	0.0947	19.3199
	2018	0.0226	0.1573	1.7619	0.0797	0.0754	19.3172
Consolidated bank	2015	0.0031	0.0939	2.0855	0.0553	0.0537	16.4642
	2016	-0.0152	0.0790	1.6960	0.1176	0.0469	16.4487
	2017	-0.0249	0.0509	1.5890	0.1527	0.0637	16.4149
	2018	-0.0419	0.0280	1.8478	0.1533	0.0713	16.3718
	2019	-0.0448	0.1352	1.8022	0.2568	0.0764	16.2888
Credit bank	2015	-0.0058	0.1551	2.0314	0.0638	0.0247	16.1464
	2016	0.0090	0.2285	2.0400	0.0722	0.0248	16.3200
	2017	0.0092	0.1477	2.0715	0.0754	0.0201	16.4904
	2018	0.0139	0.1451	2.0411	0.0724	0.0228	16.7006
	2019	0.0098	0.1496	1.7498	0.0870	0.0182	16.8910
Co-operative bank of Kenya	2015	0.0342	2.1258	2.7078	0.0342	0.0860	19.6518
	2016	0.0360	0.2277	3.3101	0.0390	0.0730	19.6787
	2017	0.0295	0.2268	3.2906	0.0620	0.0627	19.7736
	2018	0.0308	0.1618	3.5151	0.1009	0.0785	19.8406
	2019	0.0313	0.1505	3.5375	0.0979	0.0635	19.9402
Development Bank of Kenya	2016	0.0038	0.2508	1.3816	0.2601	0.0050	16.6135
	2017	0.0017	0.2355	1.3697	0.2098	0.0040	16.6072
	2018	0.0075	0.2323	1.4155	0.2981	0.0078	16.5449
	2019	0.0703	0.3147	1.4352	0.3695	0.0235	16.5472
Diamond Trust Bank	2015	0.0243	0.1463	2.6092	0.0241	0.0159	19.4199
	2016	0.0236	0.1850	2.5313	0.0325	0.0180	19.6087
	2017	0.0191	0.1901	2.4755	0.0666	0.0210	19.7107
	2018	0.0187	0.2111	2.4734	0.0629	0.0210	19.7497
	2019	0.0188	0.2091	2.5720	0.0683	0.0212	19.7719
Dubai Bank	2017	-0.2298	0.7005	1.4774	38.5539	0.0420	14.7750
	2018	-0.1192	0.2990	1.4105	0.0037	0.0990	15.4739
	2019	-0.0636	0.1486	1.6439	0.0095	0.1263	16.0114
Ecobank	2015	0.0017	0.2496	1.6881	0.0622	0.0684	17.7749
	2016	-0.0429	0.1944	1.1269	0.1628	0.0477	17.6683
	2017	-0.0209	0.1599	2.5155	0.3770	0.0851	17.7944
	2018	0.0036	0.1659	2.7357	0.1735	0.0743	17.8130

Bank	Year	ROA	Capital adequacy	Interest rate	Asset quality	Liquidity management	Bank size
	2019	0.0021	0.1622	3.2274	0.1448	0.0301	18.1380
Equity Bank	2015	0.0405	0.2017	5.7115	0.0272	0.0814	19.8748
	2016	0.0350	0.1966	5.3755	0.0628	0.0494	19.9761
	2017	0.0361	0.2041	4.4289	0.0553	0.0509	20.0779
	2018	0.0346	0.1593	4.5860	0.0710	0.0425	20.1671
	2019	0.0362	0.1979	4.1093	0.0873	0.0710	20.3283
Family bank	2015	0.0244	0.1441	2.7562	0.0367	0.0759	18.2134
	2016	0.0051	0.2078	2.7076	0.1197	0.0790	18.0567
	2017	-0.0145	0.1986	2.6356	0.1923	0.0816	18.0516
	2018	0.0036	0.1952	2.8930	0.1618	0.0937	18.0204
	2019	0.0120	0.1869	3.3344	0.1409	0.0883	18.1831
First Community Bank	2015	-0.0008	0.1145	10.3969	0.2346	0.1685	16.4941
	2016	-0.0037	0.1399	4.3055	0.3195	0.1486	16.5210
	2017	0.0087	0.1534	4.8105	0.4078	0.1340	16.6697
	2018	-0.0119	0.0911	3.6867	0.4882	0.1271	16.6992
	2019	0.0102	0.0810	4.0809	0.4145	0.1678	16.7474
Guaranty Trust Bank	2015	0.0095	0.2649	2.2730	0.0916	0.0786	17.5282
	2016	0.0130	0.2547	2.3379	0.1108	0.2266	17.2864
	2017	0.0067	0.2387	2.3269	0.1088	0.1958	17.2774
	2018	0.0024	0.2597	2.3383	0.1467	0.0477	17.4516
	2019	0.0197	0.2428	2.7854	0.1090	0.0526	17.1856
Guardian Bank	2015	0.0157	0.1763	1.9023	0.0304	0.0904	16.4972
	2016	0.0156	0.1904	1.9649	0.0169	0.1042	16.5037
	2017	0.0101	0.2022	1.9487	0.0453	0.0782	16.5757
	2018	0.0139	0.2275	2.0558	0.0757	0.0863	16.5997
	2019	0.0112	0.2220	1.8680	0.0689	0.0961	16.6120
Gulf African Bank	2015	0.0295	0.1577	5.5683	0.0842	0.0890	17.0226
	2016	0.0184	0.1872	5.4057	0.0923	0.1278	17.1171
	2017	0.0049	0.1620	4.4963	0.0929	0.1095	17.2596
	2018	0.0039	0.1866	4.3711	0.1064	0.0866	17.3218
	2019	0.0048	0.1711	3.3872	0.1534	0.0642	17.3744
Habib Bank Ltd	2015	0.0292	0.3213	3.1077	0.0792	0.0526	16.1408
	2016	0.0245	0.3911	2.5833	0.1871	0.0670	16.3419

Bank	Year	ROA	Capital adequacy	Interest rate	Asset quality	Liquidity management	Bank size
	2018	0.0105	0.2463	2.1002	0.0745	0.0322	16.8845
	2019	0.0097	0.2729	2.1119	0.0922	0.0305	17.0273
Housing finance Company ltd	2015	0.0167	0.1813	1.8051	0.0437	0.0004	18.0874
	2016	0.0126	0.1769	1.8418	0.0692	0.0699	18.0912
	2017	0.0019	0.1700	1.7161	0.1081	0.0604	18.0282
	2018	-0.0099	0.1534	1.6738	0.2494	0.0459	17.9190
	2019	-0.0020	0.1456	1.7868	0.2356	0.0504	17.8490
I&M Bank	2015	0.0373	0.2020	2.2744	0.0248	0.0519	19.0716
	2016	0.0369	0.1815	2.6519	0.0289	0.0526	19.1652
	2017	0.0303	0.1858	2.6905	0.0870	0.0495	19.2966
	2018	0.0264	0.1792	2.4350	0.1079	0.0483	19.3315
	2019	0.0326	0.2156	2.2534	0.0979	0.0440	19.4287
Jamii Bora Bank Ltd	2015	0.0011	0.1625	1.7090	0.0517	0.0647	16.6358
	2016	-0.0106	0.2008	1.3338	0.1720	0.0438	16.5742
	2017	-0.0367	0.1933	1.5807	0.1331	0.0133	16.3714
KCB Bank	2015	0.0352	0.1536	3.2915	0.0446	0.1737	20.1400
	2016	0.0331	0.1801	4.2386	0.0705	0.0494	20.2045
	2017	0.0305	0.1663	4.6726	0.0766	0.0450	20.2873
	2018	0.0336	0.1955	3.9518	0.0627	0.0589	20.3868
	2019	0.0280	0.1903	4.2811	0.1016	0.0676	20.6163
Middle East Bank (K) Ltd	2016	-0.0127	0.3933	1.5863	0.1590	0.0575	15.4706
	2017	-0.0049	0.5708	1.6487	0.1807	0.1582	15.4489
	2018	0.0005	0.4494	1.9494	0.3825	0.0660	15.4946
	2019	0.0004	0.3119	2.0290	0.1374	0.0615	15.9516
M-Oriental bank ltd	2016	0.0034	0.3869	2.0919	0.0821	0.0801	16.1101
	2017	0.0091	0.3316	2.1285	0.0718	0.0921	16.1741
	2018	0.0078	0.3093	1.8974	0.0940	0.1104	16.1683
	2019	-0.0018	0.3442	1.6247	0.1931	0.0855	16.3327
National Bank of Kenya	2015	-0.0092	0.1399	2.0877	0.1116	0.1310	18.6473
	2016	0.0006	0.0715	2.8083	0.1749	0.0764	18.5348
	2017	0.0071	0.0542	3.0612	0.3001	0.0683	18.5148
	2018	-0.0007	0.0370	3.0630	0.3913	0.0533	18.5591

Bank	Year	ROA	Capital adequacy	Interest rate	Asset quality	Liquidity management	Bank size
	2019	-0.0080	0.1150	3.2953	0.3564	0.1132	18.5343
NIC Plc bank	2015	0.0271	0.2059	2.3398	0.0912	0.0539	18.9262
	2016	0.0256	0.2304	2.7759	0.1126	0.0429	18.9481
	2017	0.0201	0.2227	2.5408	0.1089	0.0462	19.1442
	2018	0.0203	0.1869	2.4093	0.1224	0.0574	19.1550
Paramount Bank Ltd	2015	0.0150	0.2412	1.7090	0.0519	0.0958	16.1693
	2016	0.0113	0.2741	1.3338	0.0828	0.0812	16.0592
	2017	0.0123	0.2946	1.5807	0.1056	0.1153	16.0711
	2018	0.0239	0.2853	1.5721	0.1318	0.1249	16.1067
	2019	0.0088	0.2450	1.6416	0.1211	0.0866	16.1615
Prime Bank	2015	0.0311	0.1729	1.9246	0.0170	0.0575	17.9899
	2016	0.0291	0.2216	1.8816	0.0362	0.0413	17.9950
	2017	0.0288	0.2248	1.9699	0.0486	0.0611	18.1721
	2018	0.0227	0.3729	1.8862	0.0606	0.0876	18.4220
	2019	0.0241	0.4136	1.9054	0.1018	0.0531	18.5049
SBM Bank	2015	-0.0054	0.1509	1.4341	0.1025	0.0798	18.7977
	2016	-0.1918	-0.1281	1.5196	0.8832	0.0307	16.0873
	2017	-0.0286	0.1644	1.3370	0.7290	0.0877	16.2608
	2018	0.0187	0.2425	1.7220	1.2528	0.1112	18.0733
	2019	0.0125	0.2312	1.7941	0.8521	0.0586	18.0994
Sidian Bank	2015	0.0195	0.2468	2.5490	0.1284	0.1559	16.7655
	2016	0.0013	0.2325	2.5907	0.2383	0.1486	16.8541
	2017	-0.0219	0.1646	2.0836	0.2780	0.1991	16.7757
	2018	-0.0149	0.1440	2.0072	0.2035	0.0846	17.0467
	2019	0.0041	0.1793	1.7786	0.1968	0.1250	17.0908
Stanbic Bank Kenya Ltd	2015	0.0235	0.1870	2.6710	0.0411	0.0544	19.1552
	2016	0.0206	0.1812	2.3313	0.0505	0.0402	19.1847
	2017	0.0173	0.1684	2.7633	0.0666	0.0323	19.3319
	2018	0.0222	0.1740	2.6840	0.0945	0.0785	19.4537
	2019	0.0211	0.1834	2.7332	0.0998	0.0914	19.4947
Standard Chartered Bank	2015	0.0271	0.2116	4.7732	0.1015	0.0609	19.2707
	2016	0.0361	0.2091	4.0920	0.0829	0.0619	19.3389
	2017	0.0242	0.1852	3.3293	0.0896	0.0467	19.4705
	2018	0.0284	0.1947	3.5730	0.1169	0.0711	19.4694
	2019	0.0273	0.1773	4.3237	0.0953	0.0683	19.5264

Bank	Year	ROA	Capital adequacy	Interest rate	Asset quality	Liquidity management	Bank size
Spire Bank Ltd	2015	-0.0336	0.1745	1.5574	0.3332	0.0544	16.4876
	2016	-0.0545	0.1627	1.4909	0.1677	0.0712	16.4404
	2017	-0.1010	0.1265	1.3608	0.4271	0.0305	16.2268
	2018	-0.2445	-0.2201	1.0857	0.5598	0.0445	16.0372
	2019	-0.0688	-0.2060	1.1425	0.7111	0.0205	15.7413
Transnational Bank	2015	0.0161	0.2164	2.4740	0.1103	0.0974	16.1624
	2016	0.0105	0.2230	2.5462	0.1156	0.1242	16.1547
	2017	0.0036	0.2908	2.5776	0.2416	0.1391	16.1419
	2018	-0.0070	0.2111	2.2822	0.2211	0.1290	16.1414
	2019	-0.0090	0.2015	2.5410	0.2857	0.0869	16.0475
UBA Kenya Bank Ltd	2015	-0.0338	0.2379	1.3749	0.0180	0.0312	15.8672
	2016	0.0043	0.3868	1.7278	0.0186	0.0366	15.5385
	2017	0.0029	0.3878	2.2583	0.0436	0.0733	15.6880
	2018	0.0035	0.3316	1.9185	0.1276	0.0860	16.5455
	2019	0.0042	0.2537	1.9377	0.2432	0.0256	16.5936
Victoria Commercial Bank	2015	0.0357	0.1930	1.8469	0.0329	0.0659	16.8122
	2016	0.0264	0.2545	1.9503	0.0255	0.0598	16.9247
	2017	0.0238	0.2274	2.1279	0.0008	0.0673	17.0730
	2018	0.0135	0.2109	1.8831	0.0308	0.0816	17.2917
	2019	0.0146	0.2015	1.9718	0.0506	0.0780	17.4010
Victoria Commercial Bank	2014	0.0040	0.0003	0.2908	0.8361	16.1420	3.2958
	2015	0.0210	0.0279	0.1723	0.7652	19.4870	3.3322
	2016	0.0260	0.0000	0.2545	0.9743	16.9250	3.3673
	2017	0.0240	0.0008	0.2274	1.0103	17.0730	3.4012
	2018	0.0140	0.0308	0.2109	0.9504	17.2920	3.4340

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