

**THE EFFECT OF SAVINGS MOBILIZATION ON THE  
PROFITABILITY OF COMMERCIAL BANKS IN KENYA**

**BY  
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## DECLARATION

I declare that this is my original work and has not been presented for an award in any university or institution of higher learning.

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## **Abstract**

The objective of the study was to determine the effect of savings mobilization on the profitability of Kenya's commercial banks. To answer this question, panel secondary data of the eleven listed banks spanning ten years was used to infer findings to the forty two commercial banks in Kenya. By employing panel data analysis and a random effects model, the study finds that deposits mobilization represented by value of deposits and interest rate spread are not statistically important in explaining the profitability of commercial banks in Kenya. Besides, bank size and non-performing loans were statistically important in explaining bank profitability. A unit increase in bad loans has an average negative effect on net profit by 0.655 where as a unit change in bank assets is statistically different from zero at 10% and has an average positive effect on net profit of 5.35. The study recommends that commercial banks in Kenya should focus their energies in the monitoring and collection of non-performing loans to enhance their profitability. The commercial banks should also increase their assets size in order to enhance their profitability. The management of the commercial banks should also improve their operational efficiency in order to enhance their profitability.

## LIST OF ABBREVIATIONS AND ACRONYMS

<b>CBK</b>	Central Bank of Kenya
<b>EPS</b>	Earnings per Share
<b>GDP</b>	Gross Domestic Product
<b>GFCF</b>	Gross Fixed Capital Formation
<b>KPI</b>	Key Performance Indicators
<b>NPL</b>	Non-Performing Loans
<b>POS</b>	Point of Sale
<b>ROA</b>	Returns on Asset
<b>ROE</b>	Return on Equity
<b>SACCO</b>	Savings and Credit Cooperative Society

## CHAPTER ONE: INTRODUCTION

### 1.1 Background of the Study

Savings mobilization is the creation of safe as well as sound institutions that would accept savings from people ready to place their deposits with these institutions, with the knowledge and assurance they would get back the full value of their deposits plus interests accrued upon the expiry of the savings period. An increase in savings enhances capital formation leading to economic growth. Commercial banks play a vital role in enhancing financial intermediation, where they accept deposits from savers and issue such deposits as loans to investors. They are therefore keen on the spread between the interest rates that they charge borrowers and the interest rates that they pay to savers of these funds. According to Bello (2005), as much as improved banking infrastructure, adoption of technology, and products development in these banks influence profitability of commercial banks, the spread between the lending rate and the interest rates paid to depositors of funds play a critical role in determining profitability of commercial banks.

A number of theories attempt to explain how savings mobilization and commercial banks profitability are related. The financial intermediation theory explains the role of commercial banks in intermediation between savers and borrowers. The theory states that the high level of intermediation reduces informational asymmetry, which leads to reduced market imperfections (Diamond, 1984). The Tobin Q theory developed by Tobin in 1958 suggests that the amount of money held as an asset depends on the interest rates offered in the market. Individuals tend to hold many of their assets in money form when the interest rates are low and hold most of their assets in bonds during periods of high interest rates (Tobin, 1958). The Diffusion Innovations theory discusses the rate at which new ideas are generated and brought out in organizations (Rogers, 1962). The ability of commercial banks to adopt new technology as well as innovative techniques



of mobilizing savings would definitely have an impact on their profitability depending on the rate of success of the innovations (Rogers, 1962). Following these theories, the study aims at analyzing how they apply to the Kenyan context concerning the role of savings mobilization on commercial banks profitability.

In Kenya, a number of initiatives have been adopted by commercial banks to increase the level of deposits held through savings mobilization. While commercial banks have adopted their own strategies including the use of print media and recently a greater use of the social media platform, the central bank has introduced policies that encourage savings. As at December 2020 the number of deposit accounts held with commercial banks stood at 69.8 million from 62.3 million in 2019. The deposits were valued at Kshs 4.0 trillion in 2020 up from Kshs 3.6 trillion in 2019. Whereas the loan book amounted to Kshs 3.0 trillion in 2020 from Kshs 2.69 trillion in 2019 (CBK, 2020). On the other hand, the profitability of commercial banks stood at Kshs 112.1 billion at the end of the financial year 2020.

### **1.1.2 Savings Mobilization**

Savings mobilization refers to the accumulation of cheap and voluntary savings by financial institutions through the provision of saver friendly products that are safe, convenient, and easily accessible. It also involves the creation of safe institutions, where savers place their deposits with the surety that they will get the full worth of their assets and a considerable return, upon their maturity. It requires the development of good products that meet the clients' interest for voluntary saving and advertising those products to savers of different income levels. Basically, it is the accumulation of voluntary savings, safeguarding and managing them, and utilizing them to fund loan portfolios (Branch & Klaehn, 2008).

While banks devise various marketing strategies to mobilize savings, which include enhanced access through agency banking; adoption of mobile banking platforms; internet banking; deposit mobilization campaigns through social and conventional media, other factors beyond them may affect these efforts. Studies have found that economic indicators like real interest rates are positively related to savings rate (Shaw, 1973 and McKinnon, 1973). Governments as a result put efforts to contain domestic inflation so as to curb the negative impact on both real interest rates and interest spread.

There are fundamentally three kinds of private domestic savings, each with its own determinants: deliberate saving, involuntary saving, and forced saving. Deliberate saving refers to the intentional restraint from consumption by individuals out of personal disposable cash inflow and by business organizations out of their earnings. Whereas involuntary saving refers to achievement of savings through compulsory decreases in consumption. The decrease in the purchasing power maybe through an increase in taxes or as a result of inflation in the economy that results into involuntary savings. On the other hand, forced saving refers to savings that arise from increase in prices of goods such that an individual is forced to save for a long time in order to purchase the commodity if they do not have access to credit. In essence, rising costs may diminish real consumption for various reasons. Initially, individuals may suffer money illusion, which is the belief that money has specific purchasing power, while disregarding the inflation effect. Besides, they might need to maintain the real worth of their cash balance possessions, so they collect more cash and spend less as costs rise; the real equilibrium impact.

Mobilization of savings therefore does not only act as an important aspect of commercial banks, but is also pertinent for economic development of a country. Commercial banks provide an avenue for individuals with money to save it for a return. At the same time, the commercial banks bring

in investors who are willing to borrow these funds at higher interest rates with the aim of investing it to generate positive returns. As a result, commercial banks act as a catalyst for the economy to advance by promoting savings while placing idle savings into useful and productive ventures in the economy. Mobilization of savings was therefore measured in regards to the total deposits in a bank for a particular year (Rajeshwari, 2014).

### **1.1.3 Profitability**

Profitability is defined as the excess of revenues over the costs of obtaining such revenues. According to Vane and Thompson (1982), commercial banks are statutorily mandated with financial intermediation for the purpose of availing money to financial specialists in this manner overcoming any barrier between the moneylenders and borrowers. They therefore help to increase transfer of value, advancement of the monetary sector, as well as the savings propensity for the general population. To viably mobilize savings in an economy, the inflation rate should be stabilized to guarantee a high positive real interest rate. This in turn urges investors to save more from their disposable income. The banks on the other hand obtain their profits from the critical role of financial intermediation. These profits are determined from margins between the lending rate and the interest rate at which commercial banks pay depositors funds. This is crucial in determining profitability of commercial banks. However, profitability may also be determined by the efficiency at which a commercial bank is able to turn each saving into a credit facility and the quality of products offered by the commercial banks.

Regulations by regulatory authority of commercial banks, sometimes control the spread between the amount paid by commercial banks on deposits as well as the amount to charge on loans issued. This has been the case of pegging of interest rates, where the difference in profitability between commercial banks is not necessarily dictated by the spread, but more on the efficiency of the

commercial banks to issue loans and offer products at competitive rates. This suggests that profitability in commercial banks is not only influenced by the spread, but also by other factors critical to operations of commercial banks. Various measures of profitability exist for example Return On Asset (ROA), Return On Equity (ROE) and Earning Per Share (EPS). ROA is a preferred profitability measure for commercial banks as it involves the determination of the efficiency with which commercial banks are able to utilize their assets in generating returns (Byusa, 2016).

#### **1.1.4 Mobilization of Savings and Profitability of Commercial Banks**

Mutuku (2009) highlighted the predicaments faced by commercial banks in savings mobilizations. The author points to the fact that the available funds are competed for by many institutions besides commercial banks. They include other financial institutions such as insurance firms, co-operative societies and micro finance institutions. The stiff competition that exists between these entities fighting for these deposits implies that commercial banks have to offer innovative products and offer competitive rates that would attract savers.

Competition does not only exist with other different entities but it is also alive between commercial banks. The stiff competition within and outside commercial banks mean that huge costs must be incurred in the development of innovative products, as well as in undertaking promotional campaigns. The operational costs therefore reduce the profitability margin. However, commercial banks increase the likelihood of generating higher revenue from saving mobilization campaigns that often attract deposits to facilitate lending (Tuyushime et al., 2015). A study by Byusa (2016) found that there was improved performance with increased mobilization of savings.

### **1.1.5 Kenya's Commercial Banks**

The Kenyan government has been cognizant of the indispensable role played by the banking sector. In light of these, several policies have been put in place to ensure the industry attains its full potential. The sub sector is classified under the larger financial sector which constitutes of banks, insurance firms, capital markets and pension schemes among others. The banking sector forms the largest contribution in the success of the financial sector. The Central Bank of Kenya (CBK) is the regulator of commercial banks under the Banking Act, Cap 488. According to the banking annual report, the Kenyan banking sector comprised of 42 banking institutions including 1 mortgage institution; of these 42, 40 were privately owned and 2 had the government holding majority shares (CBK, 2020). The report further indicates that 23 of these private banks were locally owned and the remaining 17 were foreign owned. The central bank further classifies commercial banks based on the market share, profits before tax, advances, deposits and net assets. In this case, banks with assets of over Ksh.15 billion are classified as large banks. Whereas, commercial banks with assets of over Ksh. 5 billion are medium, and less than Ksh. 5 billion assets base are small banks (CBK, 2020).

The CBK annual report (2020), indicates that commercial banks asset base grew by 12.4 percent in 2020 from a 10.1 percent growth in 2019 drawn from growth in investment in government securities and growth in the loan book. Contrary, profitability declined by 29.5 percent as a result of increased expenses by 22.8 percent vis a viz the marginal increase in income of 7.3 percent. Customer deposits increased by 13.6 percent in 2020 to Ksh. 4.0 trillion in December 2020 from Ksh. 3.5 trillion in December 2019. In December 2020, loans and advances had increased by 7.2 percent from Ksh.2.7 trillion in December 2019 to Ksh.2.9 trillion. In the same period, gross non-performing loans as a ratio of the aggregate gross loans degraded to 14.5 percent in December

2020 from 12.5 percent in the same period of 2019. It is also noted that about 54 percent of the loan book worth Ksh.1.6 trillion had been restructured by the end of December 2020 following the COVID -19 pandemic.

## **1.2 Research Problem**

The primary activity of Commercial banks is accepting deposits and lending out those deposits to borrowers at higher interest rates than the rates they pay for deposits. While savings mobilization may enhance profitability, other factors like competition due to the high number of institutions that take deposits may have an effect on savings mobilized and in turn affect profitability (Byusa, 2016). Studies have indicated that the low savings culture in sub Saharan Africa can be attributed to the design of products aimed at enhancing savings, regulatory framework, institutional governance among others (Maimbo & Mavrota, 2003; Ngenadakuriyo, 2014 and Elser et. al., 1999). On the other hand, Fischer (1989) argued that the monetary policy pursued by developing countries affected saving mobilization domestically.

From the foregoing, a bank interested in attracting deposits would need to fight it out, not only with other banks, but also other financial institutions such as insurance companies, deposit taking SACCOs, micro finance institutions among others (Branch et al., 2000). The savers also have high demands as far as their deposits are concerned. This is because they are interested in saving their funds with an institution they can trust to be secure and provides better returns for their funds in Kenya, savings mobilization is a key source of funds for banks to undertake profitable lending operations.

Despite the sector employing various strategies to mobilize deposits like agency banking and mobile phone platforms, data indicates that customer deposits grew at a lesser pace than borrowing. In 2020, the commercial banks total income was made up of over 63 percent interest income from loans and advances with cost of deposits accounting for over 27 percent of total expenses (CBK, 2020). This implies deposits were not adequate to meet the loan demand and commercial banks had to resort to funds that attract high costs or the deposits attracted very low interest rates. As a result, the profitability of commercial banks is affected. If commercial banks do not strategize better ways of mobilizing savings, they are bound to incur higher costs of funds to meet their lending obligations

Ongeti (2016) researched on the economic determinants of savings mobilization by commercial banks in Kenya. The research discovered that real deposit interest affects saving mobilization as well as economic growth and structural infrastructure. Isinta et al. (2019) on the other hand sought to establish how savings mobilization affects the bancassurance and financial performance of commercial banks. The findings suggest that savings activation had no huge intervening impact on this relationship. The findings therefore contradicted the findings by Ongeti (2016). Tuyishime et al. (2015) sought to expound on the impact of savings mobilization on the financial performance of commercial banks in Rwanda. The study found that improving infrastructure, increase in advertising and improved innovations increased savings mobilizations. At the same time, deposit mobilization and financial performance of Equity Bank in Rwanda are positively related. The studies, although unilaterally agreed that it was essential for commercial banks to improve and enhance mobilization of savings, did not agree on the results of mobilization undertakings by commercial banks resulting into a research gap. This study therefore aims to fill this gap by

responding to the exploration question on how mobilization of savings affects commercial banks' profits in Kenya.

### **1.3 Research Objective**

The research objective of the study is to determine the effect of savings mobilization on the profitability of Kenya's commercial banks.

### **1.4 Value of the Study**

The study will strengthen the theory of financial intermediation since it is centered on the allocation of excess funds from savers to borrowers through an agent called the bank. This study shall be of importance to a variety of groups, policy makers and stakeholders in the banking industry as well as to future researchers and academicians. The management of commercial banks will have empirical evidence to help them rethink their savings mobilization efforts to enhance their profits. At the same time, policy making institutions like the Central Bank of Kenya shall find this study useful as it will provide information on how mobilization of savings influences the profitability of banks and what policies can be instituted to enhance bank performance while safeguarding depositors' interest. Future researchers would also find the study important as the findings of the study shall be used in establishing research gaps that would develop and promote knowledge in savings mobilization and profitability of commercial bank



## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The literature reviewed in this chapter illustrates the contributions made in the area of study; savings mobilizations and profitability. This chapter details the theoretical contributions relevant to the study, as well as the empirical evidence and the research gaps that warrant a study in the area. A review of factors that drive profitability of commercial banks and a summary of literature review are then presented.

### **2.2 Theoretical Framework**

The study is anchored on three theories; the financial intermediation theory, the diffusion of innovation theory and the bank led theory. The proposition of each theory is discussed; the relation of the theory with the study as well as criticism of the theory is also brought out.

#### **2.2.1 Bank Led Theory**

This theory concerns itself with how financial institutions, like commercial banks, develop their monetary products and services and offer them through retail agents (Lyman, Ivatury and Staschen, 2006). It proposes an alternative to regular branch-based banking to customers managing transactions entirely through retail agents. A retail agent is any outlet handling monetary transactions, located close to clients, has close and personal association with customers, accepts deposits and makes payments on behalf of the commercial bank. The transactions may be initiated through a cell phone or a Point of Sale (POS) terminal that reads cards. When a client visits the retail agent to conduct a transaction, the retail agent performs know your customer (KYC)

requirements and if the retail agent is satisfied that he/she is dealing with the correct client, then he/she goes ahead and execute the transaction. In all instances, cash is either saved to or removed from the retail agent's money cabinet. The electronic record of the exchange is transmitted from the retail agent to the commercial bank. The retail agents include licensed bank agents, telecommunication service providers and point of sale outlets.

This is one of the methods of enhancing deposit mobilization by commercial banks particularly in the rural areas where commercial banks are physically absent. The theory is relevant to this study in that it promises an increased access to banking services through retail agents. As a result, bank clients find it convenient to deposit their money through the retail agent thus enhancing the deposit mobilization of the commercial banks.

### **2.2.2 Financial Intermediation Theory**

Von Mises (1912) is one of the earliest proponents of the financial intermediation theory. The theory states that banks are intermediaries that borrow in the form of deposits with short maturities and lend out loans for longer maturities. In this case, liquidity is created and is anchored on the premise that intermediation reduces the cost of transactions and assists in improving information asymmetry (Diamond, 1984). Information asymmetry arises because lenders may not be able to evaluate the credit risk level of borrowers leading to adverse selection of borrowers. Information asymmetry also occurs when only the borrower has knowledge of the expected returns of a particular project upon completion and this could lead to a moral hazard. Banks have the ability to convey information to investors about borrowers at a lower cost than individual lenders (Leland and Pyle, 1977). Banks are normally in the business of receiving deposits from savers who hold excess funds and lending the excess funds to borrowers. Intermediation refers to the matching of

the savers with the borrowers through an agent called the bank. The financial intermediaries include banks, sacco, insurance firms and pension funds. The banks lend the funds to the borrowers at an interest, and they also pay the savers of the excess funds an interest.

This theory is relevant for this study given the role savings mobilization plays in enhancing deposits for banks that are then given out as loans by the commercial banks thus playing the intermediation role. At the same time, profitability of banks may be determined by the level of deposits that in turn translates to interest income through the loan book. Financial intermediaries decrease the cost of transfer of funds between lenders and borrowers and as a result lead to a more efficient allocation of funds. In the event the economy experiences inflation, the government may use the financial intermediaries such as sacco and banks to mop up the excess liquidity in the market and may also use the intermediaries to channel funds to specific sectors of the economy thus spurring economic growth. The theory emphasizes on the need for the saving of excess funds with the financial intermediaries such as sacco and banks hence enhancing deposits mobilization.

### **2.2.3 Diffusion of Innovations Theory**

Developed by Rogers (1962), the theory explains how new thoughts and ideas spread in the society. The diffusion theory is based on five phases/processes; implementation, decision, persuasion, knowledge, and confirmation phases. The key components for the success of the diffusion theory are the innovation, communication channels, time and the social system (Rogers, 1962). This therefore means that an organization first must have an innovation that it feels is good for the society and then share the innovation with other people through the various communication channels. The idea should be time bound and should be able to offer a solution to an existing

societal problem. The theory is identified with development of new ways of transacting business and therefore is key in the development of new ways of mobilizing deposits.

## **2.3 Factors Affecting Profitability of Commercial Banks**

The profits attained by commercial banks are generally influenced by the revenue obtained by the bank and the costs incurred in getting and securing the revenue. However, the way costs incurred are transformed into revenue would vary from one bank to another and therefore influence profitability differently.

### **2.3.1 Mobilization of Savings**

Mobilization of savings is not only crucial for commercial banks, but is also vital for economic development of a country. It brings together individuals with surplus funds who wish to save these funds in commercial banks and at the same time look for investors who are willing to borrow these funds at higher interest rates so as to invest them in ventures that would generate positive returns. This helps the economy by promoting savings while at the same time help to place idle funds into useful and productive ventures in the economy. An increase in savings enhances capital formation contributing to economic growth. At the same time, increase in investments driven by increase in savings will lead to enhanced capacity utilization in an economy. Besides, employment opportunities are created because of more investment activities, purchasing power increases due to increased disposable income that could result into more savings. Studies have also confirmed the crucial aspect of mobilization of savings on performance of commercial banks (Ongeti, 2016; Isinta et al., 2019 Oyushime et al., 2015 & Rajeshwari, 2014).

### **2.3.2 Interest Rate Spread**

The interest rate spread is the difference of the interest rate paid by commercial banks in acquiring deposits and the interest rate charged by commercial banks on loans. As indicated by Ghasemi & Rostami (2016), interest rate spread in the banking industry is the difference between the interest that the bank pays to depositors and the interest that the bank receives on loans disbursed to customers. The interest paid by the commercial banks on the deposits is called interest expense while the interest received by the banks on loans is the interest income. This is a key determinant of the bank's profitability. This therefore means, the cheaper the deposits the higher the interest rate spread and the higher the profit for the commercial banks. There are different factors that determine the interest rate spread in the banking industry such as NPL (Non-Performing Loans) ratio, ROA ratio as well as inflation and exchange rate. The banks' regulatory authority is keen to ensure that the interest rates spread is sufficient to facilitate commercial banks in the discharge of their role of financial intermediation. Economic activities in an economy, whether productive or non-productive, value adding or non-value adding would need to access loans and credit in order to be successful (Atabaki, 2006).

### **2.3.3 Firm Specific Factors**

These are factors specific to a commercial bank. These factors include size of the commercial bank, age and corporate governance among others. The firm specific factors may have an influence on the profitability of a banking institution as they would provide specific details on the manner a particular institution is able to transform costs into revenues. The size of a commercial bank, for instance, is crucial as it helps the commercial bank enjoy economies of scale that have a positive impact on its profitability. Age, on the other hand, comes with experience and brand recognition.

The experienced commercial banks have been in the industry for quite a time. This therefore helps the commercial bank master the market and able to strategically position itself in the market. Corporate governance is also crucial to the manner in which a commercial bank is able to utilize its assets in generating revenue. Efficiency is obtained as a result of deliberate decisions that would ensure that each department in the bank is efficient and effective in its service delivery (Atabaki, 2006).

## **2.4 Empirical Studies**

Empirical studies relate to both international as well as local studies that have been undertaken on savings mobilization and profitability of commercial banks. The area of each study is discussed, the methodology that was employed by each study as well as the study findings. The study gap is also highlighted to bring out the value that this study would improve or the new knowledge that would be expected from this study. The recommendations of each study are also well considered while undertaking the empirical review.

### **2.4.1 Global Studies**

Byyiyet et al. (2019) found that lending rate and total deposits affect gross fixed capital formation in Nigeria whereas credit to private sector is inversely related to GDP. The study utilized net fixed capital development as a proxy dependent factor. Total deposits, credit to private sector, and lending rate were the independent factors. Using quarterly time series data from Q1 1980 to Q4 2015, the study focused on capital formation of commercial banks in Nigeria and how it is affected by deposit mobilization and credit financing. The study found that lending rate and total deposit liabilities have positive impact on gross fixed capital formation. The study suggested that Nigeria

commercial banks should re-direct their intermediation exercises effectively. However, unlike this study, the study analyzed how deposit mobilization affects capital formation and not profitability Akumu, Doku & Awer (2017), investigated how Ghanaian banks profitability is influenced by deposit mobilization and credit risk by analyzing data from 2002 to 2011. The study used panel regression analysis to estimate a number of variables including; Return on Asset, performing loan proportion to total loans, inflation, deposit mobilization, capital sufficiency proportion, growth in revenue income and total bank assets. Findings suggested that capital adequacy ratio, growth in interest income, deposit mobilization and credit risk are statistically significant in explaining profitability of Ghanaian banks. The analysis did not conduct diagnostic tests, for example, normality test, multi-collinearity test. This would influence the result findings and therefore creates a study gap that would be addressed by this study.

Mamo (2017) carried out a study on determinants of deposits mobilization in Ethiopia's commercial banks. The study used time series quarterly data ranging from Q1-1980 to Q4-2015. The analytical technique applied was multi linear regression. Variables adopted by the study were competitors, bank branches and loans. The findings suggested that lending, branch growth and number of clients were critical in inducing deposits mobilization. The investigation focused on the determinants of deposit mobilization not the impact of deposit mobilization on the profits of commercial banks.

Ogar and Oka (2017) looked at how financial deepening affects capital development in Nigeria. The study used time series data ranging from 1986 to 2014. By applying OLS and multiple strategies of regression, the study found that financial deepening affects capital formation. The variables used in the study included; gross cash supply to GDP, Gross fixed capital formation, the

ratio of gross domestic investment to GDP, private sector lending as a ratio of GDP and interest spread as the explanatory variables. Notwithstanding, the investigation neglected to capture mobilization of savings and productivity of commercial banks and this could influence the findings.

Venkati (2016) inspected how financing of credit and deposit mobilization affects capital development in Ethiopia. The study used time series Quarterly data ranging from Q1 1981 to Q4 2015. By employing ordinary least square technique and gross fixed capital formation as a dependent variable, findings suggested that deposits, public saving and loans influenced capital formation in Ethiopia. Explanatory variables include bank credit, bank deposits and bank speculation.

Shuaib & Dania (2015) analysed how financial advancement in Nigeria is affected by capital formation. The study used time series data ranging from 1981 to 2013. Applying Harrod-domar model the study estimated gross capital formation, all expenditures by government, the cost of financing, inflation, cumulative saving rate, and external domestic rate. The study found that capital formation and its determinants have an impact on financial advancement in Nigeria.

#### **2.4.2 Local Studies**

Rono (2020) investigated how agent banking affects deposit mobilization for Commercial Banks in Kenya. The study was conducted on three commercial banks; Equity Bank, Kenya Commercial bank and Cooperative Bank. The study used descriptive research targeting branches in Nairobi County. The targeted population was 152 respondents consisting of 8 agency bankers 140 bank agents and 4 branch managers. Data was gathered from 60 respondents who formed the sample. The study revealed a significant relationship between agent deposit transactions and deposit



mobilization. The study recommended that banks should adopt an agency model to expand the agency network to enhance mobilization of savings. The study however, did not focus on the profitability element of commercial banks after enhancement of deposits mobilization, which will be undertaken in this study.

Isinta et al. (2019) sought to analyze how savings mobilization affects bancassurance and financial performance of Kenya's commercial banks. Using both secondary and primary data, savings mobilization was found to have no significant intervening effect on the relationship between bancassurance and financial performance of commercial banks. The study applied regression analysis and descriptive statistics. Regarding deposits mobilized from bancassurance, the findings indicated that they are not huge enough to affect tax benefits, profits and the proportion of interest income to total returns of commercial banks. The mobilization of savings was therefore restricted to bank deposits received as a result of bancassurance, which may have different results from mobilization of all savings by commercial banks and profitability of the banks.

Kavulya (2018) an analysis that ran from 2013 to 2018, the strategies used to mobilise deposits were assessed to determine how they affect profitability of Saccos in the Kenyan context. Findings indicate that strategies for product development are significant in explaining Sacco performance. Marketing strategies and performance of Saccos are positively and significantly related to strategies on product development. The study recommends continuous product development in line with changing customer demands. While this study limited savings mobilization to Saccos the current study seeks to establish how savings mobilization drives the performance of commercial banks in Kenya.

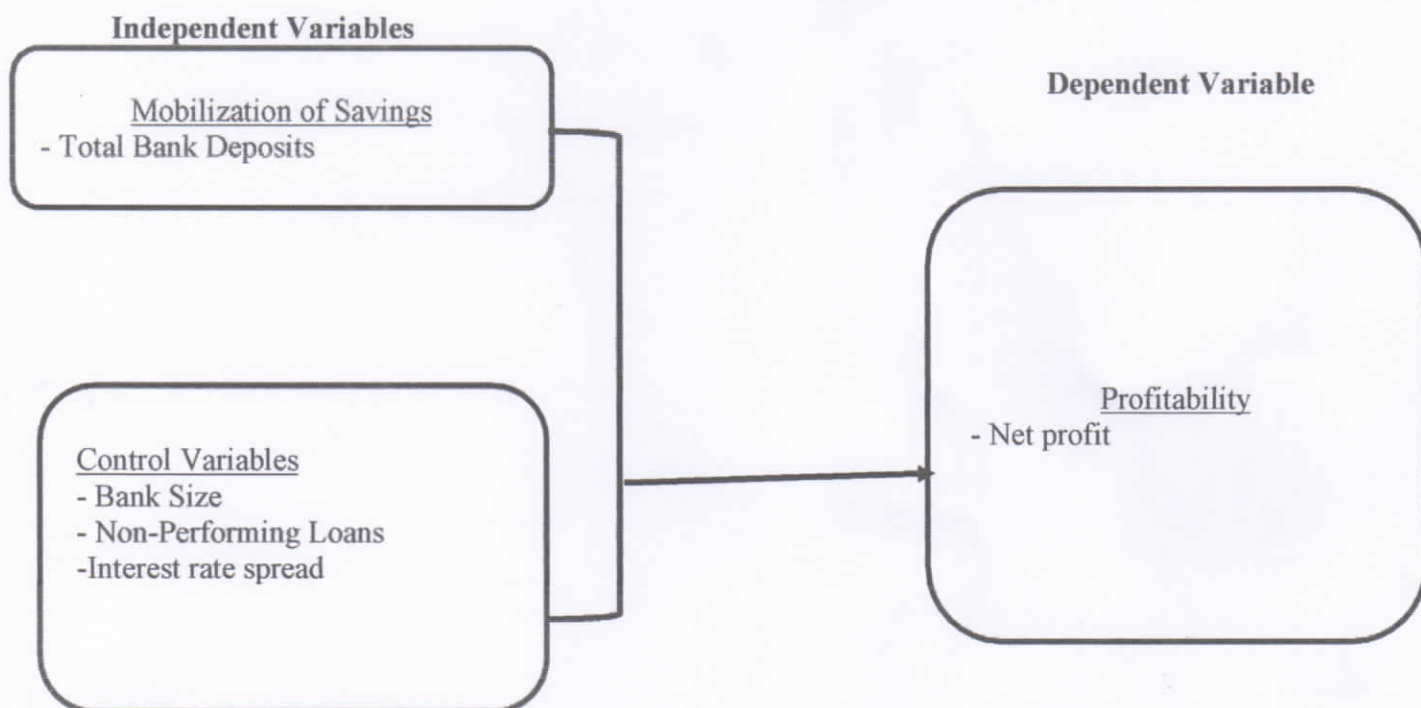
Ongeti (2016) researched on the economic determinants of savings mobilization by commercial banks in Kenya. The research discovered that real deposit interest affects saving mobilization as well as economic growth and structural infrastructure. The study investigated the economic determinants of savings mobilization by commercial banks in Kenya while this study will be focusing on the deposit mobilization and financial performance of commercial banks in Kenya.

Cheruiyot et. al. (2012) analyzed how strategies by cooperatives affects members' savings mobilization and how intervening factors impact on savings mobilization. Primary data was collected from 210 respondents. A multiple linear regression model was employed to test the relationship and assess impact of the independent variables on members' savings mobilization. Findings indicate that investment opportunities and control variables had a positive influence on saving mobilization. The study restricted the mobilization of savings to Saccos while this study seeks to establish the relationship of savings mobilization and performance of commercial banks in Kenya.

## **2.5 Conceptual Framework**

Figure 2.1 depicts how the study variables relate to each other in a pictorial format. It indicates that the independent variables of the study are mobilization of savings that would be determined by total deposits in a commercial bank in a particular year. The other independent variable is the interest rate spread that is determined by the difference between the lending rate by a commercial bank and interest the bank pays for fixed deposits. The independent variables influence the regressed variable, which is the profitability of commercial bank. This will be measured by ROA, which is the net profit/loss after taxes divided by the total assets of a bank.

The connection between mobilization of savings and profitability of commercial banks would be controlled by firm specific factors, as they would influence the relationship between the two variables. The firm specific factors that would be considered in the study are the size of the bank, which is determined by total assets, the non-performing loans, and the age of the bank.



**Figure 2.1: The Model**

## **2.6 Summary of Literature Review**

Review of the empirical studies reveals the existence of study gaps that will be addressed by the study. Previous studies undertaken were on various topics touching on mobilization of savings by

commercial banks through credit, deposit mobilization and productivity of banks among others. Studies whose focus is close to the current study considered the connection between savings mobilization and agency banking, bancassurance and financial performance. One of the studies failed to undertake necessary diagnostic tests for the various models adopted by the study. There was no single study that focused on mobilization of savings and profitability of Kenya's commercial banks. This study would therefore be impactful in filling the research gap and answering the research question.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This section contains the methodology applied in meeting the research objective and answering the research questions. The chapter presents the design for the study, model specification, data sources and ethical consideration.

### **3.2 Research Design**

Research design is the overall strategy put into use, and represents a logical plan that is established to obtain answers for the research questions and achieve the research objectives. This study adopted a random effects regression model informed by the fact that the data set is panel data. In this case the model will allow the observation of the relationship between bank profitability and savings mobilization and the direction of impact; whether positive or negative.

### **3.3 Population of the Study**

A study population refers to individuals, objects, or institutions in which the one conducting the study is interested in obtaining the data to conduct a study. It is from the study population that the researcher identifies and draws a sample from which the characteristics of the sample are inferred to be the characteristics of the population. The population of the study was the 42 licensed commercial banks in Kenya as at December 2020.

### **3.4 Sample of the Study**

The sample of the study were the eleven listed commercial banks. The study looked at the eleven listed commercial banks as a sample of the forty-two commercial banks in Kenya due to their size as measured by their assets value. The study was focused on the performance of the banks from the year 2011 to December 2020.

### **3.4 Collection of Data**

Secondary data from the CBK publications and the annual financial statements for the ten year period from 2011 to 2020 of the listed commercial banks was used for the study. The specific datasets of interest from these reports were total deposits for the commercial banks in each year of interest which is a proxy for savings mobilization, interest rate spread that represents the difference between the lending and savings rate and may imply the motivation to save or not; value of total assets of the commercial banks and non-performing loans for each year of interest and the profits after tax reported by commercial banks.

### **3.5 Model specification and Analysis**

The study used Panel data analysis due to its ability to control for variables that cannot be observed or measured like difference in business practices across the banks and variables that change over time but not across the banks e.g. net profit of the banks. The empirical regression model specified below shows the relationship between the profitability of the banks and various explanatory variables. The study applies the logged values of the continuous variables to linearize the model and interpret the coefficients as elasticities. The model is specified as;

$$Lnnetprofit_{it} = \beta_1 Lnbank\ deposits_{it} + \beta_2 Lnnpl_{it} + \beta_3 Lnbanksize_{it} + \beta_4 interest\ spread_{it} + \varepsilon_{it} + u_{it} \dots\dots\dots (i)$$

Where

- The log of Net profit is the dependent variable
- *i* is the specific listed bank and *t* is time.
- $\beta_1$  to  $\beta_4$  are the coefficient for the independent variables,
- $\varepsilon_{it} + u_{it}$  is the random error term from unobserved factors that affect net profit

### 3.6 Hausman Test

To decide between fixed or random effects, the study used a Hausman test. It tests whether the unique errors are correlated with the regressors, the null hypothesis is they are not (Green, 2012). If the error terms are correlated, then fixed effects (FE) is not suitable since inferences may not be correct. Fixed effects removes the effect of those time-invariant characteristics so as to assess the net effect of the predictors on the outcome variable. Each entity is different therefore the entity's error term and the constant should not be correlated with the others.

### 3.7 Diagnostic Tests

Undertaking a statistical analysis, requires that various assumptions are made in regard to the data that is analyzed. These assumptions are that the data must be capable of being represented in a linear format. Wooldridge (2009) indicated that time series that is prone to non-stationarity leads to unauthentic results. The study used Levin Lin Chu unit-root test which makes the assumption that the variable has unit root. The other test which was undertaken by the study is multi-

collinearity test which assumes that the independent variables are truly independent and therefore do not influence or are not correlated with each other. The data is also tested for normality.

### **3.8 Significance Test**

The test was undertaken at a confidence level of 95% meaning that there was only 5% chance allowed for making type I error. F test results with a significance of less than 0.05 means that the null hypothesis of the study was rejected and thus it indicates that there exists significance relation of savings mobilization and profitability of commercial banks in Kenya.

### **3.9 Ethical Consideration**

In undertaking research analysis, there are various ethical considerations that are required to be complied with before and while undertaking the research. The data that would single out a specific commercial bank, or information that would point to a specific or certain bank was not published. The investigation was also to be utilized for scholarly purposes and no other purposes. Anonymity was therefore emphasized.



## CHAPTER FOUR: FINDINGS, RESULTS AND DISCUSSION

### 4.0 Introduction

In this chapter, the study analyzed the data to answer the research question of the study. The study begins by collation of the panel data sets from the various CBK publications and the annual financial statements of the listed commercial banks for the ten year period as from 2011 to 2020. Data cleaning and arrangement to suit panel data analysis was also carried out. In this section, the study presented finding from analysis by stating the descriptive statistics, various diagnostics on the error term to ensure validity of the results presented and the regression results.

### 4.1 Summary Statistics

The study employed data from the Kenyan commercial banks with the eleven listed banks taken as a sample of all the commercial banks. Secondary data was taken for ten years from 2011 to 2020. Bank deposits as a source of credit financing was reported at a minimum of Kshs16.74 billion and a maximum of Kshs 20.19 billion. On the other hand, the interest rate spread varied from 5.15% to a maximum of 13.06%. The non-performing loan book varied from a minimum of Kshs 11.01 billion against gross loans to a high of Kshs18.01 billion. Net profit varied from a minimum of zero implying a loss; which was noted for five data points over the period to a high of Kshs 17.04 billion. The summary statistics are presented in table 4.1.

**Table 4.1: Descriptive Statistics**

Variable Name	Obs	Mean	Std. dev.	Min	Max
Year	110	2015.5	2.88543	2011	2020
Listed Banks	110	6	3.17675	1	11
Bank Deposits	110	18.7642	0.71889	16.7426	20.1933
Bank Size_ Assets	110	19.1041	0.66949	17.2804	20.4467
Net Profit	110	15.4168	1.12238	0	17.041
Non Performing Loans	110	15.565	1.52659	11.0143	18.0174

*Source: Authors Presentation of Results*

## **4.2 Diagnostic Tests**

To begin with, the study ran the Levin-Lin-Chu unit-root test to confirm if the variables were stationary. The test assumes that a null hypothesis of the series containing a unit root. However, the hypothesis was rejected for net profit, non-performing loans, bank assets; that measured the size of the bank and deposits. The data was therefore analysed at levels and only logs were taken to make the variables linear and allow for interpretation of coefficients as elasticities (Refer to the appendix 1 for the actual test results).

Since the study ran a robust random effects model, it allowed for control of heteroscedasticity and therefore this test was not done. At the same time, serial correlation was not tested because the dataset is a time series less than twenty years.

## **4.3. Panel Model selection**

To choose between fixed or random effects model, the study did a Hausman test. The test looks at whether the unique errors are correlated with the independent variables, the null hypothesis is they are not. The results of the Hausman test were insignificant at 0.1797 indicating that the best model for the data set was Random effects model. The random effects model has the differences across banks assumed random and uncorrelated with the explanatory variables in the model.

**Table 4.2: Hausman Test Results**

hausman fixed random				
	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) Std. err.
	(b) fixed	(B) random		
lnnp1	-.2063556	-.6547694	.4484138	.1967845
Inbankdepo-s	-1.625525	-1.31169	-.3138354	1.300473
Inassets_b-e	4.495338	5.351392	-.8560547	1.301558
interestra-d	.3359183	.2573986	.0785197	.1085051

b = Consistent under H0 and Ha; obtained from xtreg.  
 B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

chi2(4) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)  
 = 6.27  
 Prob > chi2 = 0.1797

Source: Authors Presentation of Results

### 4.4 Findings

To answer the research objective, the study estimated a robust random effects model. Interpretation of coefficients from the random effects model is such that the average effect of the explanatory variables on the net profit across time and within banks by one unit. Deposits represent the amount of customer savings that is utilized for lending and therefore contributes to interest income and thus profitability. This is the main independent variable that is regressed against the net profit of commercial banks. Contrary to expectations, it was found that deposits are not statistically significant in explaining the profitability of commercial banks. As illustrated in table 4.3, the analysis finds that the coefficient of non-performing loans is statistically significant at 5%. This implies that a unit increase in bad loans has an average negative effect on net profit by 0.655. Similarly, the coefficient of bank assets is statistically different from zero at 10% and has an average positive effect on net profit of 5.35 by a unit change. Further, the constant is statistically significant

in explaining the profitability of commercial banks in Kenya. The standard deviation of residuals within groups represented by sigma u is zero and the sigma e is the standard deviation of the residuals of the observation specific zero mean error term i.e. 2.5736808. The F statistics also indicates that the model was well specified, strongly balanced and validates the finding of the study.

**Table 4.3: Random Regression Results**

```
. xtreg lnnetprofit lnnp1 lnbankdeposits lnassets_banksize interestratespread , re robust
```

```
Random-effects GLS regression           Number of obs   =       110
Group variable: listedbanks            Number of groups =        11

R-squared:                               Obs per group:
  Within = 0.0789                        min =          10
  Between = 0.9185                       avg =         10.0
  Overall = 0.4566                       max =          10

corr(u_i, X) = 0 (assumed)               Wald chi2(4)    =       188.65
                                           Prob > chi2     =        0.0000
```

(Std. err. adjusted for 11 clusters in listedbanks)

lnnetprofit	Coefficient	Robust std. err.	z	P> z	[95% conf. interval]	
lnnp1	-.6547694	.2365917	-2.77	0.006	-1.118481	-.1910582
lnbankdeposits	-1.31169	1.884048	-0.70	0.486	-5.004355	2.380976
lnassets_banksize	5.351392	2.37636	2.25	0.024	.6938115	10.00897
interestratespread	.2573986	.2491451	1.03	0.302	-.2309168	.7457139
_cons	-54.80438	14.60179	-3.75	0.000	-83.42336	-26.1854
sigma_u	0					
sigma_e	2.5736808					
rho	0	(fraction of variance due to u_i)				

## **CHAPTER FIVE: SUMMARY AND CONCLUSIONS**

### **5.0 Introduction**

In this section, the study provides a summary in terms of the methodology, finding, conclusion and recommendation.

### **5.1 Summary and Conclusions**

The study looked at the effect of savings mobilization on the profitability of commercial banks in Kenya. The data used for the study was panel data and the random effects model was adopted after the fixed effects test was found to be insignificant. The model assumes the differences across banks are random and uncorrelated with the explanatory variables in the model. Panel secondary data was analysed for all the listed commercial banks in Kenya covering a ten year period. This data was collated from the Central bank and the individual banks websites. The research objective of the study was to determine the effect of savings mobilization on the profitability of Kenya's commercial banks. The study finds that deposits mobilization is not statistically important in explaining the profitability of commercial banks in Kenya. However, bank size and non-performing loans were found to be statistically important in explaining bank profitability. The foregoing therefore indicates that savings mobilization is not a key determinant in commercial banks profitability but, bank size represented by assets and the management of non-performing loans are indispensable in the determination of profitability.

### **5.2 Limitations of the Study**

The study took a sample of the eleven listed commercial banks in Kenya as opposed to using data from all the forty-two commercial banks. The study also looked at the performance of the commercial banks for a period of ten years probably a longer period could give different results.

### **5.3 Recommendations of the Study**

The statistical insignificance of deposits in determining the profitability of commercial banks in Kenya calls for banks to focus more on operational efficiency to increase their profitability.

The study also shows that the non-performing loans affects the profitability of the commercial banks. The management of the commercial banks should thus enhance their loan monitoring and collection methods in order to reduce the non-performing loans which also affects the profitability of the commercial banks. The banking sector should increase the financial inclusion of the unbanked population to increase on their turnovers thus increasing their profitability.

Further studies should be undertaken to establish the effect of deposit mobilization and the financial performance of cooperative societies and micro finance institutions in Kenya which may be different from commercial banks. The study looked at data from the eleven listed commercial banks, studies on the effect of deposit mobilisation on the performance of commercial banks could be done on the unlisted commercial banks in Kenya.

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## APPENDICES

### APPENDIX 1: Diagnostic Tests Results

#### Unit root Test results

. xtunitroot llc lnbankdeposits

Levin-Lin-Chu unit-root test for lnbankdeposits

Ho: Panels contain unit roots                      Number of panels =     11  
Ha: Panels are stationary                           Number of periods =    10

AR parameter: Common                              Asymptotics: N/T -> 0  
Panel means: Included  
Time trend: Not included

ADF regressions: 1 lag  
LR variance:     Bartlett kernel, 6.00 lags average (chosen by LLC)

	Statistic	p-value
Unadjusted t	-2.1574	
Adjusted t*	-1.4925	0.0678

. xtunitroot llc lnassets\_banksize

Levin-Lin-Chu unit-root test for lnassets\_banksize

Ho: Panels contain unit roots                      Number of panels =     11  
Ha: Panels are stationary                           Number of periods =    10

AR parameter: Common                              Asymptotics: N/T -> 0  
Panel means: Included  
Time trend: Not included

ADF regressions: 1 lag  
LR variance:     Bartlett kernel, 6.00 lags average (chosen by LLC)

	Statistic	p-value
Unadjusted t	-3.5940	
Adjusted t*	-2.4298	0.0076

. xtunitroot llc lnnpl

Levin-Lin-Chu unit-root test for lnnpl

Ho: Panels contain unit roots                      Number of panels =     11  
Ha: Panels are stationary                           Number of periods =    10

AR parameter: Common                              Asymptotics: N/T -> 0  
Panel means: Included  
Time trend: Not included

ADF regressions: 1 lag  
LR variance:     Bartlett kernel, 6.00 lags average (chosen by LLC)

	Statistic	p-value
Unadjusted t	-7.9562	
Adjusted t*	-6.7493	0.0000

```
. xtunitroot llc netprofit
```

```
Levin-Lin-Chu unit-root test for netprofit
```

```
Ho: Panels contain unit roots      Number of panels = 11
Ha: Panels are stationary          Number of periods = 10

AR parameter: Common              Asymptotics: N/T -> 0
Panel means: Included
Time trend: Not included
```

```
ADF regressions: 1 lag
LR variance: Bartlett kernel, 6.00 lags average (chosen by LLC)
```

	Statistic	p-value
Unadjusted t	-4.8002	
Adjusted t*	-1.6559	0.0489

### Random effects Model

```
. xtreg lnnetprofit lnnp1 lnbankdeposits lnassets_banksiz interestratespread , re
```

```
Random-effects GLS regression      Number of obs = 110
Group variable: listedbanks        Number of groups = 11
```

```
R-squared:                          Obs per group:
  Within = 0.0789                    min = 10
  Between = 0.9185                   avg = 10.0
  Overall = 0.4566                   max = 10
```

```
corr(u_i, X) = 0 (assumed)          Wald chi2(4) = 88.23
                                      Prob > chi2 = 0.0000
```

lnnetprofit	Coefficient	Std. err.	z	P> z	[95% conf. interval]	
lnnp1	-.6547694	.3183648	-2.06	0.040	-1.278753	-.0307858
lnbankdeposits	-1.31169	1.571231	-0.83	0.404	-4.391246	1.767867
lnassets_banksiz	5.351392	1.66864	3.21	0.001	2.080919	8.621866
interestratespread	.2573986	.1582746	1.63	0.104	-.052814	.5676112
_cons	-54.80438	8.89162	-6.16	0.000	-72.23164	-37.37713
sigma_u	0					
sigma_e	2.5736808					
rho	0	(fraction of variance due to u_i)				

## Fixed Effects Model

Fixed-effects (within) regression  
Group variable: listedbanks

Number of obs = 110  
Number of groups = 11

R-squared:

Within = 0.0873  
Between = 0.8924  
Overall = 0.4469

Obs per group:  
min = 10  
avg = 10.0  
max = 10

corr(u\_i, Xb) = 0.5817

F(4,95) = 2.27  
Prob > F = 0.0672

	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
lnnetprofit						
lnnp1	-.2063556	.374273	-0.55	0.583	-.9493815	.5366703
lnbankdeposits	-1.625525	2.039607	-0.80	0.427	-5.674657	2.423607
lnassets_banksiz	4.495338	2.116226	2.12	0.036	.2940985	8.696577
interestratespread	.3359183	.1918964	1.75	0.083	-.0450443	.7168808
_cons	-40.20633	25.65737	-1.57	0.120	-91.14265	10.73
sigma_u	1.0317258					
sigma_e	2.5736808					
rho	.13845187	(fraction of variance due to u_i)				

F test that all u\_i=0: F(10, 95) = 0.88

Prob > F = 0.5562

## Hausman Test for Random or Fixed

. hausman fixed random

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) Std. err.
	(b) fixed	(B) random		
lnnp1	-.2063556	-.6547694	.4484138	.1967845
lnbankdeposits	-1.625525	-1.31169	-.3138354	1.300473
lnassets_banksiz	4.495338	5.351392	-.8560547	1.301558
interestratespread	.3359183	.2573986	.0785197	.1085051

b = Consistent under H0 and Ha; obtained from xtreg.

B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

$$\chi^2(4) = (b-B)'[(V_b-V_B)^{-1}](b-B)$$

$$= 6.27$$

Prob > chi2 = 0.1797

## **APPENDIX II: Licensed Commercial Banks**

1. African Banking Corporation Limited
2. Bank of Africa Kenya Limited
3. Bank of Baroda (K) Limited
4. Bank of India
5. Barclays Bank of Kenya Limited
6. Charterhouse Bank Limited
7. Chase Bank (K) Limited
8. Citibank N.A Kenya
9. Commercial Bank of Africa Limited
10. Consolidated Bank of Kenya Limited
11. Co-operative Bank of Kenya Limited
12. Credit Bank Limited
13. Development Bank of Kenya Limited
14. Diamond Trust Bank Kenya Limited
15. DIB Bank Kenya Limited
16. Eco bank Kenya Limited
17. Equity Bank Kenya Limited
18. Family Bank Limited
19. First Community Bank Limited
20. Guaranty Trust Bank (K) Ltd
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. Jamii Bora Bank Limited
27. KCB Bank Kenya Limited
28. Mayfair Bank Limited
29. Middle East Bank (K) Limited
30. M-Oriental Bank Limited
31. National Bank of Kenya Limited
32. NIC Bank Kenya Plc
33. Paramount Bank Limited
34. Prime Bank Limited
35. SBM Bank Kenya Limited
36. Sidian Bank Limited
37. Spire Bank Ltd
38. Stanbic Bank Kenya Limited
39. Standard Chartered Bank Kenya Limited
40. Trans-National Bank Limited
41. UBA Kenya Bank Limited
42. Victoria Commercial Bank Limited

## **Appendix 111: LISTED COMMERCIAL BANKS**

- 1 KCB BANK GROUP
- 2 ABSA BANK KENYA LIMITED
- 3 EQUITY BANK GROUP
- 4 STANDARD CHARTERED BANK
- 5 NCBA BANK GROUP
- 6 DIAMOND TRUST BANK
- 7 I&M BANK LIMITED
- 8 STANBIC HOLDINGS
- 9 HOUSING FINANCE GROUP
- 10 NATIONAL BANK OF KENYA LTD
- 11 CO-OPERATIVE BANK OF KENYA



### Appendix IV: Data Collection Sheet

Listed bank	Year	Net profit	NPL	Interest rate spread	Assets Banksize	Bank deposits
KCB	2011	15,129,000	452,957	13.06	282,494,000	210,174,000
ABSA	2011	8,073,000	729,000	13.06	167,305,000	124,207,000
EQUITY	2011	10,325,000	1,630,000	13.06	176,911,000	121,774,000
STANDARD CHARTERED	2011	5,836,000	412,739	13.06	164,182,000	122,323,000
NCBA	2011	2,707,000	258,151	13.06	73,581,000	62,099,000
DTB	2011	2,656,000	588,789	13.06	77,453,000	59,772,000
I&M	2011	3,472,000	249,952	13.06	176,903,000	56,944,000
STANBIC HOLDINGS	2011	1,838,000	652,853	13.06	140,087,000	74,335,000
HF	2011	622,278	186,297	13.06	31,972,000	18,674,000
NATIONAL BANK	2011	1,546,000	692,423	13.06	68,665,000	56,728,000
CO-OPERATIVE BANK	2011	5,363,000	710,000	13.06	167,772,000	142,705,000
KCB	2012	12,200,000	1,770,000	11.9	304,112,000	223,493,000
ABSA	2012	8,740,000	1,440,000	11.9	185,102,000	137,915,000
EQUITY	2012	12,000,000	1,608,000	11.9	215,829,000	140,286,000
STANDARD CHARTERED	2012	8,120,000	881,000	11.9	195,493,000	140,525,000
NCBA	2012	3,110,000	415,000	11.9	101,772,000	157,462,000
DTB	2012	4,060,000	985,000	11.9	94,512,000	72,505,000
I&M	2012	4,110,000	60,737	11.9	91,520,000	65,640,000
STANBIC HOLDINGS	2012	3,000,000	635,429	11.9	133,378,000	75,633,000
HF	2012	687,053	1,715,096	11.9	40,686,000	22,968,000
NATIONAL BANK	2012	729,000	2,550,000	11.9	67,155,000	55,191,000
CO-OPERATIVE BANK	2012	7,707,000	840,000	11.9	199,663,000	162,267,000
KCB	2013	14,341,000	19,227,705	10.34	323,312,000	237,213,000
ABSA	2013	7,623,000	1,223,000	10.34	207,010,000	151,122,000
EQUITY	2013	13,278,000	2,402,000	10.34	238,194,000	158,527,000
STANDARD CHARTERED	2013	9,263,000	987,000	10.34	220,524,000	154,720,000
NCBA	2013	3,237,000	1,092,000	10.34	112,917,000	84,236,000
DTB	2013	5,230,000	899,000	10.34	114,136,000	84,672,000
I&M	2013	4,974,000	472,000	10.34	110,316,000	74,494,000
STANBIC HOLDINGS	2013	5,127,000	767,000	10.34	170,726,000	75,633,000
HF	2013	808,969	2,497,000	10.34	46,755,000	22,968,000
NATIONAL BANK	2013	1,113,000	288,000	10.34	92,493,000	55,191,000
CO-OPERATIVE BANK	2013	9,108,000	778,000	10.34	228,874,000	162,267,000
KCB	2014	16,848,000	13,368,000	9.18	376,969,000	276,750,000
ABSA	2014	8,387,000	4,554,000	9.18	226,043,000	176,915,000
EQUITY	2014	17,151,000	7,469,000	9.18	277,116,000	202,560,000
STANDARD CHARTERED	2014	10,400,000	10,752,000	9.18	222,636,000	161,904,000
NCBA	2014	4,110,000	5,969,000	9.18	137,087,000	91,997,000
DTB	2014	5,083,000	1,199,000	9.18	141,176,000	102,060,000

Listed bank	Year	Net profit	NPL	Interest rate spread	Assets Banksize	Bank deposits
I&M	2014	5,234,000	1,913,000	9.18	137,299,000	87,185,000
STANBIC HOLDINGS	2014	5,686,000	3,370,000	9.18	171,347,000	102,244,000
HF	2014	975,336	4,163,000	9.18	60,491,000	36,310,000
NATIONAL BANK	2014	870,702	7,237,000	9.18	122,865,000	104,458,000
CO-OPERATIVE BANK	2014	8,015,000	7,982,000	9.18	282,689,000	219,416,000
KCB	2015	16,499,000	19,289,000	9.53	467,741,000	347,564,000
ABSA	2015	8,400,000	5,336,000	9.53	241,153,000	188,820,000
EQUITY	2015	17,327,000	6,832,000	9.53	341,329,000	237,025,000
STANDARD CHARTERED	2015	6,213,000	14,698,000	9.53	234,131,000	174,462,000
NCBA	2015	4,485,000	13,195,000	9.53	156,762,000	104,988,000
DTB	2015	5,912,000	3,656,000	9.53	190,948,000	126,577,000
I&M	2015	5,811,000	5,072,000	9.53	147,846,000	104,466,000
STANBIC HOLDINGS	2015	4,697,000	4,858,000	9.53	198,578,000	109,132,000
HF	2015	1,324,000	4,097,000	9.53	68,809,000	41,881,000
NATIONAL BANK	2015	-1,153,000	11,762,000	9.53	125,295,000	110,864,000
CO-OPERATIVE BANK	2015	11,710,000	8,189,000	9.53	339,550,000	266,614,000
KCB	2016	19,722,000	28,333,000	9.48	504,778,000	386,391,000
ABSA	2016	7,399,000	11,472,000	9.48	259,498,000	198,515,000
EQUITY	2016	16,603,000	15,457,000	9.48	379,749,000	277,135,000
STANDARD CHARTERED	2016	9,049,000	15,038,000	9.48	250,274,000	191,082,000
NCBA	2016	4,330,000	12,650,000	9.48	161,847,000	103,402,000
DTB	2016	7,173,000	5,520,000	9.48	270,082,000	170,421,000
I&M	2016	6,342,000	5,072,000	9.48	164,116,000	118,553,000
STANBIC HOLDINGS	2016	4,418,000	7,013,000	9.48	204,895,000	122,888,000
HF	2016	906,000	6,193,000	9.48	68,085,000	38,772,000
NATIONAL BANK	2016	162,000	29,987,000	9.48	115,114,000	97,851,000
CO-OPERATIVE BANK	2016	12,680,000	11,273,000	9.48	349,998,000	256,796,000
KCB	2017	19,705,000	34,182,000	5.45	555,630,000	440,164,000
ABSA	2017	6,926,000	12,615,000	5.45	271,682,000	186,245,000
EQUITY	2017	18,918,000	14,758,000	5.45	406,402,000	298,703,000
STANDARD CHARTERED	2017	6,914,000	17,621,000	5.45	285,125,000	213,349,000
NCBA	2017	6,925,000	13,265,000	5.45	192,817,000	130,561,000
DTB	2017	6,450,000	11,901,000	5.45	270,082,000	190,469,000
I&M	2017	5,725,000	17,669,000	5.45	183,953,000	132,801,000
STANBIC HOLDINGS	2017	4,309,000	10,359,000	5.45	239,408,000	153,009,000
HF	2017	126,000	8,212,000	5.45	62,127,000	36,898,000
NATIONAL BANK	2017	410,000	27,658,000	5.45	109,942,000	94,544,000
CO-OPERATIVE BANK	2017	11,405,000	18,714,000	5.45	382,830,000	285,566,000
KCB	2018	22,410,000	30,012,000	5.15	621,722,880	475,396,000
ABSA	2018	7,415,000	13,910,000	5.15	325,362,740	207,105,000
EQUITY	2018	19,824,000	17,064,000	5.15	438,508,780	340,941,000

Listed bank	Year	Net profit	NPL	Interest rate spread	Assets Banksizes	Bank deposits
STANDARD CHARTERED	2018	8,099,000	21,661,000	5.15	284,691,000	223,391,000
NCBA	2018	4,228,000	15,830,000	5.15	195,054,630	134,992,000
DTB	2018	6,686,000	11,036,000	5.15	281,515,700	204,831,000
I&M	2018	6,636,000	21,115,000	5.15	229,161,130	175,177,000
STANBIC HOLDINGS	2018	6,277,000	16,644,000	5.15	280,953,010	196,539,000
HF	2018	- 598,000	13,334,000	5.15	57,083,280	34,284,000
NATIONAL BANK	2018	7,008,000	31,461,000	5.15	115,143,440	98,241,000
CO-OPERATIVE BANK	2018	12,732,000	28,953,000	5.15	408,303,620	303,450,000
KCB	2019	25,165,000	34,786,000	5.38	674,301,720	536,830,200
ABSA	2019	7,456,000	13,519,000	5.38	374,109,200	242,374,650
EQUITY	2019	22,561,000	26,185,000	5.38	507,525,240	381,137,800
STANDARD CHARTERED	2019	8,237,000	20,058,000	5.38	302,295,900	236,461,220
NCBA	2019	7,841,000	30,516,000	5.38	464,890,690	360,304,820
DTB	2019	7,268,000	12,892,000	5.38	287,250,600	221,038,370
I&M	2019	8,942,000	18,799,000	5.38	254,252,170	195,840,910
STANBIC HOLDINGS	2019	6,222,000	19,345,000	5.38	292,705,140	205,515,900
HF	2019	- 110,000	12,316,000	5.38	57,083,280	38,004,360
NATIONAL BANK	2019	- 302,000	25,175,000	5.38	112,028,750	97,078,520
CO-OPERATIVE BANK	2019	14,300,000	31,156,000	5.38	449,616,470	330,113,190
KCB	2020	19,604,000	66,810,000	5.27	758,345,000	588,628,000
ABSA	2020	4,163,000	17,099,000	5.27	377,936,000	253,630,000
EQUITY	2020	20,100,000	42,825,000	5.27	667,650,000	496,748,000
STANDARD CHARTERED	2020	5,441,000	22,337,000	5.27	325,873,000	256,498,000
NCBA	2020	4,570,000	35,995,000	5.27	491,614,000	389,484,000
DTB	2020	3,528,000	19,747,000	5.27	312,189,000	207,984,000
I&M	2020	8,431,000	20,178,000	5.27	283,569,000	218,153,000
STANBIC HOLDINGS	2020	5,224,000	25,038,000	5.27	318,986,000	216,805,000
HF	2020	- 1,706,000	10,799,000	5.27	54,478,000	40,006,000
NATIONAL BANK	2020	177,000	26,438,000	5.27	126,842,000	99,229,000
CO-OPERATIVE BANK	2020	10,800,000	51,781,000	5.27	496,823,000	369,430,000

# Ergebnisbericht der Plagiatsprüfung

## Untersuchter Text

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## Prüfergebnis

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Verdächtige Quellen: 32

Akzeptierte Quellen: 0

Ausgeschlossene Quellen: 0

Prozentsatz kopierter Worte



Überblick übereinstimmender Phrasen



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