

**INFLUENCE OF FINANCIAL SERVICES ON FINANCIAL PERFORMANCE OF  
TIER TWO BANKS IN KENYA**

**BY**

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## DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for an award of a degree. I also declare that this contains no material written and published by other people except where due reference is made and author duly acknowledged.

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## ABSTRACT

This study examined the influence of financial services on performance of tier two banks in Kenya. The Kenyan banking sector is divided into three tiers; tier one consists of six large banks with about half of the total markets share, tier two banks which are fourteen medium sized banks and tier three banks which have the smallest market share. Financial information from fourteen tier 2 banks, covering five years from 2014 to 2018 were collected from the banking institutions website and the Central Bank of Kenya annual supervision reports. Descriptive statistics was applied on the performance indicators return on assets, ratio of total savings, total loans and total costs of financial training to the net income. The target population in this study was the Tier II banks incorporated in Kenya. According to the CBK Annual Report (2018), there are Fourteen Tier II banks in Kenya. Due to the small population size,  $n < 100$ , a census study was done for all the five years and analyzed using STATA software. Panel data estimation models include; pooled ordinary least square (OLS), fixed effects model (FEM) and random effects model (REM). Breusch-Pagan Lagrange multiplier (LM) test was used to decide whether fixed effect or random effects model was appropriate for data analysis. The Hausman test showed that the best model for the study was the random effects regression model. Regression using panel data Random Effect (RE) Model was applied. The study found that the means of the EPS, savings service, loan services and financial training were 79.58, 27.96, 32.34 and 0.11 respectively. Savings services and loans services were found to be statistically significant, while Financial Training was not statistically significant. The adjusted R square value was 0.1825, an indication that there was variation of 0.1825 on influence of financial performance of Tier II banks in Kenya due to changes in saving services, loan services and financial training at 95% confidence interval. This shows that approximately only 18.25% of the changes of financial performance of tier two banks could be explained for by changes in the study variables and thus the predictor variables in this study do not have a substantial influence on the performance of Tier II banks in Kenya. The findings of the study are that savings services and loans services have a negative effect on financial performance and financial training posted a significant positive impact on the financial performance of Tier II banks.



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## **ACRONYMS AND ABBREVIATIONS**

<b>ADM</b>	: Annual Delegates Meeting
<b>AGM</b>	: Annual General Meeting
<b>BDS</b>	: Business Development Services
<b>CBK</b>	: Central Bank of Kenya
<b>CEO</b>	: Chief Executive Officer
<b>CMA</b>	: Capital Markets Authority
<b>EPS</b>	: Earnings per Share
<b>GDP</b>	: Gross Development Product
<b>KBA</b>	: Kenya Bankers Association
<b>MPT</b>	: Modern Portfolio Theory
<b>NGO</b>	: Non-Governmental Organisations
<b>NPL</b>	: Non-Performing Loans
<b>OLS</b>	: Ordinary Least Squares
<b>RBT</b>	: Resource Based Theory
<b>ROA</b>	: Return on Assets
<b>RoR</b>	: Rate of Return
<b>SACCO</b>	: Savings and Credit Cooperatives Society
<b>SDGs</b>	: Sustainable Development Goals
<b>SLCs</b>	: Savings and Loans Companies
<b>SME</b>	: Small and Medium Enterprises
<b>SPSS</b>	: Statistical Package for Social Scientists
<b>VIF</b>	: Variance Inflation Factors
<b>VLSA</b>	: Village Loans and Savings Association
<b>WOCCU</b>	: World Council of Credit Unions

## **OPERATIONAL DEFINITION OF TERMS**

**Financial training:** Series of organized activities aimed at imparting information on bank services, products, and information geared at improving the client's performance in loan use and loan repayment (Turuka, 2013).

**Loans:** Funds advanced that enables individuals or organisations to enjoy the benefit of economies of scale and new technology (Grade, 1984)

**Performance:** Involvement of the resources of a firm combined with staff motivation to achieve an organization's objective (Mwangi, 2015) of profit maximization

**Financial Services:** Financial services offered by tier two banks include: loans, credit management, training on their deposits (Chijoriga, 2000)

**Savings:** The difference between income and consumption (Muriithi & Mureithi, 2015)

**Savings mobilization:** a set of strategies, products and associated mechanisms to stimulate investment and increase the level of savings to fund increased investment. (MINECOFIN, 2008)

**Tier Two Banks:** Tier two banks are medium sized registered banks in Kenya and currently holding market share of 41.7 percent (CBK, 2016)

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

The introduction of the banking industry in Kenya can be traced back to the period when Kenya was still a British Protectorate. The pioneer banks focused on international trade financing along the Atlantic and Indian Oceans trade route, (Europe through the East Coast to India) but later diversified take advantage of opportunities in the growing settler farming community offering financial and credit services. In 1909, the law forming the East Africa Post Office Savings Bank was passed followed by the Ordinance for the Regulation of Banks Established or to be established in the East Africa Protectorate the following year. The first Ordinance established the first formal bank while the second made the National Bank of India the first commercial bank (<https://www.centralbank.go.ke/>). By 1948, there were banks in ten towns namely Mombasa, Nairobi, Nakuru, Kisumu, Nyeri, Nanyuki, Kitale, Kericho and Nyahururu (<https://www.centralbank.go.ke/>). Since independence, the banking sector in Kenya has grown to over fifty financial institutions. The Oxford Business Group (2015) concluded that the banking sector in Kenya is congested with 43 banks and over 180 SACCOs and MFIs serving a population of 43 million and even less banked population.

The Central Bank of Kenya (CBK) was established in 1966 after dissolution of the East Africa Currency Board's (EACB). The CBK is the country's regulator and supervisor of the banking institutions. Its operation is anchored in current constitution under Article 231 of the 2010 promulgated Kenyan constitution (<https://www.centralbank.go.ke/>). Tier 2 Commercial banks are part of the banking system in Kenya, classified as such by the Central Bank of Kenya (CBK, 2016). Commercial banks are business entities involved in banking services. The Banking Act defines banking as a business that involves the accepting of money on deposit to be repaid when required by the customer or at the end of a set period of time or after notice

from members of the public; payment on and acceptance of cheques drawn on itself or other banks, for current accounts; and the application of the funds held on deposit or on current account, or any part of the money, by lending, investment or in any other manner for the account and at the risk of the person so applying the money. (Banking Act, 2015). Commercial banks play a vital role as financial intermediaries for savers and borrowers (Odunga, Nyangweso, Carter & Mwarumba, 2013) and also as defined above in the Banking Act, the receiving of money from the public and employment of the funds received through lending. There several Acts of Parliament that govern the operations of the banking sector in Kenya. They are the Companies Act, the Banking Act, the Central Bank of Kenya Act (Nyathira, 2012). There are also various prudential guidelines and policies issued by the CBK that the banks are required to comply with.

The CBK (2016) established a classification of commercial banks into three tiers. Tier I consists of six large banks and with a bigger market share accounting to about half of the total market share. Tier II banks are medium sized lenders (CBK 2016). They currently number fourteen in total and account for 41.7% of the total market share. Tier III banks are smaller banks numbering twenty three, which account for 8.4% of the market share. It is expected that banks in Tier III would achieve more growth and move to Tier II and those in Tier II to move upward towards Tier I without any of the tiers moving backwards.

The banking sector is important in its contribution towards the realization of Kenya's development blueprint (Vision 2030) and the global Sustainable Development Goals (SDGs), such as universal education for all children, gender equality and increase in number of children surviving to their fifth birthday (Kithinji, 2010). Banks are very vital to economic development through the financial services they provide (Kolapo, Ayeni & Oke, 2012). In their study on credit risk and commercial banks' performance in Nigeria, they aver that the banks' intermediation role is a major driver for growth in the economy. The optimal performance of

the banking industry over a period of time is a good indicator of stability in the financial markets of any country. The degree to which a bank extends credit to the public for productive activities accelerates the pace of a nation's economic growth and its long-term sustainability (Kolapo, Ayeni & Oke, 2012). Mogga, Mwambia and Kithinji (2018) concurs with this view. They state in their study, effect of credit risk management on the financial performance of commercial banks, that banks play a crucial role with regard to the growth of the economy. They act as intermediaries by mopping up surplus funds and providing loans to entrepreneurs to carry out their business ventures. These loans contributes significantly to economic growth and also on the revenues of the commercial banks themselves, through the interest income they earn as a result of the lending. Loans are actually the main assets of commercial banks representing 50-75% of the banks total assets (Mogga, Mwambia & Kithinji, 2018).

Mwangi (2015) rates performance as involvement of a firm's resources and motivation of staff to achieve an organization's objective. Kioko and Wario (2014) in their study on credit information sharing and performance of licensed deposit taking institutions, have noted that performance can be measured through assessment of an asset quality, revenues, cash flow, capital adequacy, management quality, a model that is also referred to as the CAMEL model. The study findings were that good performance is important for the long term competitiveness and sustainability of organisations.

### ***1.1.1 Financial Services***

Commercial banks are part of a financial system. Financial system is made up of various financial institutions that operate in an orderly manner to ensure the smooth flow of funds; the regulatory and supervisory authorities that control the activities of the institutions (such as Central bank, Capital Markets Authority, Insurance Regulatory Authority etc.), the financial market, its participants and the instruments traded - such as bonds, commercial papers,

derivatives and other securities - (John & Nwekemezie, 2019). Tier II banks are part of the banking system in Kenya, registered under the Banking Act and regulated by the CBK. They render a number of financial services mainly provision of loans, credit management, and also offering financial training (Chijoriga, 2000). Relationship lending is one form of financial services (Berger & Udell, 1998). Tier II banks are among the financial institutions that provide financial services in Kenya. Tier I and III banks, Savings and Credit Cooperatives Societies (SACCOs) and Microfinance Institutions (MFIs) are the others. According to Nair and Todd (2007), access to financial services is important since it aids in rural development and poverty reduction by promoting income enhancement and vulnerability reducing investments. The banking sector is noted for its leading role in the financial sector, especially in respect to savings mobilization and credit provision (Were & Wambua, 2014)

The banks have various products through which the financial services are rendered. The main products are current and savings account, for transaction purposes as well as savings accumulation (Kenya Bankers Association, 2017). The banking industry in Kenya has in the last ten years been innovative in its financial products and services, moving from the traditional banking models to better meet the growing and complex needs of their customers (Mwangi & Ngari, 2014). Commercial banks have also had to be innovative in the manner in which their financial services are provided. Most have embraced mobile and agency banking (a type of satellite branches) which have brought affordable and convenient banking services closer to most people especially those living in the rural areas where access to banking have been almost none (Vutsengwa & Ngugi, 2013), thus furthering financial inclusion in Kenya. Recent developments have seen banks offering sharia compliant products which are also referred to as Islamic banking (Eshiwani, 2018). Islamic finance refers to the services compliant with Islamic law, but offers the same menu of services as conventional banking, but strictly forbids secured returns, fees, uncertainties caused by speculations and fluctuations in interest rates during the

financing repayment period, as per the sharia principles (Eshiwani, 2018). Other innovative products include agricultural value chain based lending which are suitably tailored for smallholder farmers and agribusinesses e.g. Dairy loans, Agricultural Input Loans, farm equipment etc. Most of these loans reach the beneficiaries through third parties such as aggregators, who are referred to as Anchors (IFAD, 2019). All these innovations are designed to capture a larger market share (especially the unbaked) and thus ultimately improve commercial banks financial performance.

Financial education (literacy) is hugely important as it enhances financial inclusion and by extension ability to access financial services and further bring in the unbanked population. Access to financial services helps in giving people fair chances especially for poorer households and small businesses. The United Nations describes poverty as a humiliation to humanity and efforts globally have been put in place to eradicate it (UNDP, 2018). Member countries have crafted country specific policy interventions, some of which includes risk sharing facility / credit guarantee schemes with commercial and microfinance banks and social protection measures such as cash transfers (mostly available to the aged, orphans and vulnerable children), which inevitably are facilitated through the banking system and therefore beneficiaries of necessity, must have a bank account. Financial exclusion also leads to other forms of social exclusion. Thus for households, the implication of a lack of access to banking services is severe as it limits the ability of a household to receive government transfers, to make payments or even accumulate cash surpluses for planned expenses or emergencies. The lack of a vehicle for saving may result in low-income households resorting to expensive short-term debt e.g the many mushrooming mobile phone credit applications. In Uganda, about 89% of the population do not have a bank account (a situation similar to Kenya) and banks there have resulted in use of social networks to increase uptake of financial services such as credit (Okello, Munene & Mulinga, 2017). They recommend that for access to financial services to be

enhanced, banks and microfinance institutions should promote social networking among the poor households, encourage them to participate in village based associations and social organisations in order to obtain vital financial information about financial services such as how to save and obtain credit. Village Loans and Savings Association (VLSA), is an example of village based associations available in the rural areas.

Banks also provide fixed deposit accounts whereby savers can lock in their savings for a longer duration of time and earn higher than normal interest rates. The above mentioned accounts can be maintained in both local and foreign currencies, depending on customers' preferences. The foreign exchange regime was liberalized in 1995, to allow individuals hold foreign currency. Other financial services offered are foreign currency exchange bureaux, sharia compliant loans and savings products, short and long term credit facilities (KBA, 2017). Short term credit facilities are loan facilities that have a repayment period of less than five years (e.g. bank overdrafts, unsecured loans to salaried employees), whereas long term credit include mortgages which are payable in up to fifteen years (Cyttonn, 2017). Another type of long term credit facility is when several banks join hands to offer syndicated loans for purpose of carrying out major government infrastructure programmes. Another area of diversification in Tier II commercial banks operations, has been the establishment of investments bank as subsidiaries with the aim of acting as securities exchange brokers, investment analyst, fund managers especially as relates to pension schemes and also investment managers (Mwanzia, 2019). These are innovative services in that the investors who are also customers do not need to move funds from one entity to another since they can buy and sell, conveniently using their bank accounts for settlement.

Some banks also provide financial services towards rural development and rural agriculture and also participate in partnership with governments in carrying out public projects, whereas others have also worked with the government for provision of entrepreneurial finance

to various sector of the economy. However less credit is advanced to agriculture sector in developing countries as compared to the other economic sectors despite the huge contribution of Agriculture to GDP (Shkodra & Shkodra, 2018) due to the perception of the sector being too risky, mainly due to unpredictable climate and seasonality of farming value chains. According to Kenya Bankers Association (KBA), a lobby group formed by banks to lobby for issues that affect the banking industry, Kenya banks are supposed to offer customer-centric (customer focused) models aimed at improving financial access, that is services that incorporate customers input, aligned to the benefits customers need and that are easily accessible (KBA, 2017). Other services are, in association with likeminded partners, to enhance their customers' financial skills necessary to access and manage credit effectively (KBA, 2017).

Providing the above services efficiently is critical for a well-functioning economy (Odunga *et al.*, 2013). According to Odunga *et al.*, (2013) banks operate efficiently through directing society's savings toward those enterprises with the highest expected social returns and monitoring them carefully after lending society's scarce resources. They add on, citing (Athanasoglou *et al.*, 2008), that in contrast banks that are wastefully and inefficient in their operations slows down financial development and impede the welfare of the society at large. They thus advocate for effectiveness in the intermediation of funds from savers to borrowers, which in turn allows for allocation of resources to where they are required most.

### ***1.1.2 Financial Performance***

Financial performance is the state of yielding a financial gain, the capacity to make a profit whether accounting or economic (Omar & Makori, 2018). Performance of a firm can be measured in three perspectives. The first is financial performance measured in profitability ratios such as return on assets, investment and equity. Second is market performance that is

focused on sales and market share, and the third is shareholders return that is measured on economic value added to shareholder's wealth (Anguka, 2012). Financial performance is about generating value for the shareholders and it can be measured through various financial metrics such as Earnings after Tax (EAT), gross and net profit margins, Return on Assets (ROA), Return on Equity (ROE), earnings per share and growth in market value of shares (Noah, Jagongo & Ndede, 2019). The financial performance of financial institutions can be measured using a combination of the above and also financial ratios analysis, benchmarking against similar firms in the industry, and measuring performance against budget or a mix of these methodologies (Noah, Jagongo & Ndede, 2019). Performance is the key variable in any area of management, which looks at the financial performance, customer satisfaction, market share, productivity and efficiency. McGuire, Sundgren and Schneeweis (2017) adds that performance can be assessed by both stock market and accounting based performance metrics. It is their position that there is a link between a firm's financial performance and the perception of corporate social responsibility.

Firms offering financial services, are in business like any other with core objectives of profits maximization that is realized through selling of its products and services. To maximize shareholder's wealth, commercial banks keep on innovating new products and processes that meet the firm's financial goals and those of customers while also focusing on controlling possible credit risk (Ogilo, 2012). According to Ongore & Kusa (2013), in their study on determinants of financial performance of commercial banks in Kenya, commercial banks have a major role in the allocation of economic resources in a country, channeling funds from depositors to investors, but they can only do this effectively if they are able to meet their costs and are profitable (Ongore & Kusa, 2013). They contend that going beyond the financial intermediation role, the banks need to generate returns for shareholders. Good performance, leading to adequate returns to investors encourages further investments in the economy and

thus enhances economic growth, whereas a poor financial performance leads to catastrophic consequences such as bank runs, national and global financial crisis and stunted economic growth (Ongore & Kusa, 2013). To forestall or combat financial crisis, most governments are compelled to provide bailout programmes which is a waste of taxpayer's money.

The financial markets have changed with time and the old systems of doing business have been found wanting in the modern day financial markets (Zeze, 2012). Schumpeter is among the early twentieth century economist who contended that properly functioning banks, as they innovate, also spur technological innovation by identifying and funding entrepreneurs with the best chances of successfully implementing innovative products and production processes. The changes in the financial markets have stimulated scholarly works by firms and researchers for innovations that will lead to enhanced profits and mitigate financial and operational risks. This is vital since to weather economic upheavals, firms should continuously innovate new products and services that would mitigate financial risks and boost their bottom line (Karr, 2012). King and Levine (1993) analysed how financial systems affect economic growth and concluded that better financial systems improve the chances of successful innovation and thereby accelerate economic growth, whereas bad financial systems does the opposite reducing the rate of innovation. Their conclusion was that financial systems are vital for production and economic development.

Whereas banks make their profit primarily through earnings made on loan interest, there is a risk that non-performing loans may expose banks to liquidity risk, arising from the fundamental role of banks in the maturity transformation of short-term deposits into long-term loans (Ogilo & Mugenya, 2015) and thus compromise the banks' financial performance. Ogilo, Omwoyo and Onsomu (2018) in their study of the relationship between liquidity risk and failure of commercial banks in Kenya, found that asset quality, in this case, loans to customers, had a significant relationship with the failure of commercial banks in Kenya. This was an

indication of weakness in the credit standards applied by banks in screening borrowers. The study recommended that bank managers reassess their current credit standards with the aim of replacing them with more comprehensive standards. It was their conclusion that the new comprehensive credit standards will impact positively on non-performing loans and therefore the financial performance of banks, ultimately preventing them from collapse. However, Kiptis & Wanyoike (2016) had a contrary view, that liquidity had a negative and insignificant influence on the financial performance of banks.

With the modern nature of the business environment for commercial banking, risks are inherent to any investment decision made by bank managers. According to Kolapo, Ayeni and Oke (2012), commercial banks are the pivot of any economic prosperity since all trading activities depend on banking services. So as the banks provide loans to their customers, they have to consider the risks associated to the credit, so as to minimize the magnitude of non-performing loans in the bank's statement of financial position, and in effect lessening the negative impact on financial performance of banks (Kithinji, 2010). Mogga, Mwambia and Kithinji (2018) citing MacDonald & Koch, (2016) asserts that efficient management of loans has an effect not only on the borrowers and the economy but also on the lending institution itself. Inability to effectively manage loans services would lead to accumulation of non-performing loans that would adversely affect the financial performance of commercial banks.

### ***1.1.3 Commercial Banks Tier II Classification in Kenya***

According to Kithinji (2010), commercial banks in Kenya are categorized in three tier groups on the basis of the value of bank assets. Tier one are banks with an asset base of over Ksh40 billion, and holds cumulative assets worth hundreds of billions and control almost half of the market share (Kajirwa, 2018). Tier two are commercial banks with asset base between Ksh10 billion and Ksh40 billion and they control 41.7% of the market share while tier three are banks

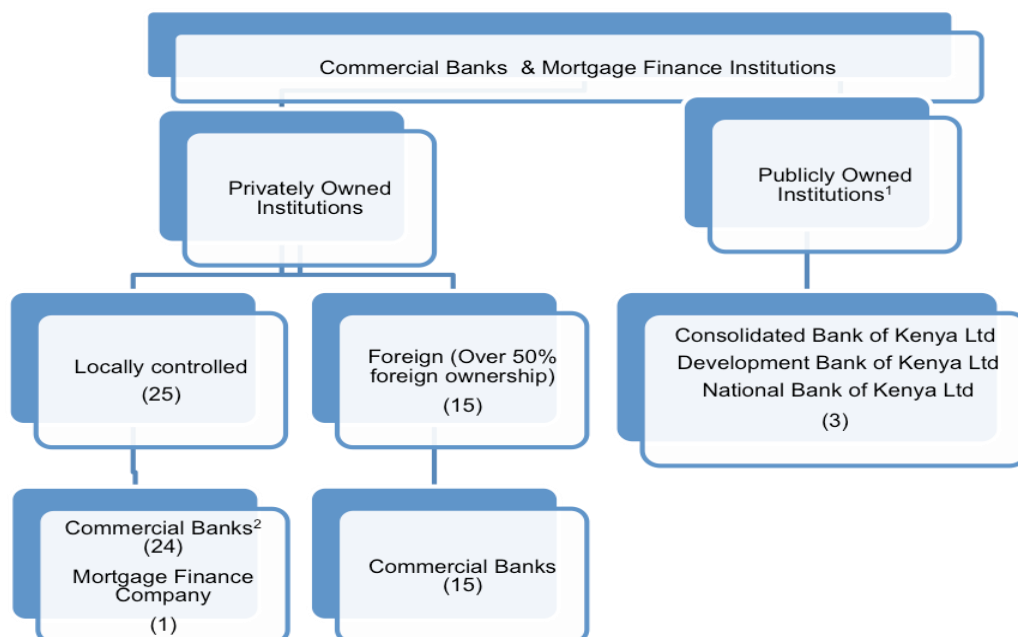
with an asset base of less than Ksh10 billion (Ondieki & Jagongo, 2013). Also a bank falls into any of these tiers classification based on its weighted composite index. This index comprises net assets, customer deposits, capital and reserves, number of deposit accounts and number of loan accounts. A bank with a weighted composite index of 5 percent and above is classified as a large bank (Tier I). A medium bank (Tier II) has a weighted composite index of between 1 percent and 5 percent while a small bank (Tier III) has a weighted composite index of less than 1 percent (CBK 2016). Mdoe, Omolo and Wawire (2016) study on the subtleties of bank competition in Kenya, established that large sized banks have consistently had a large market share between 2010 and 2014 but prior to 2014, commanded a higher market share of 56.1 per cent in 2006 which decreased gradually to 49.9 per cent in 2014. The reduction in the market share for the Tier I banks is matched by the gains of the medium sized banks (Tier II), indicating some measure of public confidence in the Tier II banks. The study concluded that although large banks dominate commercial banking, there is competition across all sizes (Mdoe, Omolo & Wawire 2016)

The classification of banks into Tiers I, II and III should not be confused with the bank's capital structures of Tier one and Tier two capital. Tier one capital is a type of capital funds which absorbs losses without a bank being wound up and is made up of common stock, preferred stock and retained earnings, whereas Tier two capital is capital that absorbs losses in the event of a bank being wound up and is made up of capital reserves e.g. revaluation reserves, general provisions, subordinated debt and hybrid instruments (Kajirwa, 2018). Irrespective of the two capital structures, the CBK requires all banks to maintain a core capital of at least 8% its total deposit liabilities and total capital of at least 12% of its total risk weighted assets. In addition to the above minimum capital adequacy ratios, banks are required to hold a capital conservation buffer of 2.5% over and above these minimum ratios to enable the banks withstand future periods of stress. Thus the minimum core capital to risk weighted assets and

total capital to risk weighted assets requirements comes to 10.5% and 14.5% respectively (Kajirwa, 2018).

Commercial banks classification into tiers was introduced by the CBK in 2010 using a Composite Market Share Index (CMSI). There are forty three banks in Kenya, with six in tier one, fourteen in tier two and finally twenty three banks in tier three. The classification was made in accordance to their financial strength as well as their reach in terms of market share (CBK, 2016). However the CBK also maintains a classification of the banks in relation to their ownership. There are two classification, private ownership against public ownership (where the Government of Kenya holds majority shares), and foreign versus local ownership. As at the end of June 2016, forty banks were privately owned, while the Kenya Government held a controlling stake in three banks. Also twenty-four of the forty privately owned banks, were owned by local investors (CBK, 2018). As at 2012, foreign banks were holding about a third of the total banking sector assets (Mutua, 2013).

**Figure 1.1: Classification of Commercial Banks in Kenya**



*Source: Central Bank of Kenya*

According to Cytonn (2017), the revenue drivers of tier two banks have been the introduction of Islamic Banking and SME banking units. Some of the SME products include *Jenga Chama*, *Jenga Kilimo* and *Jenga Biashara*. Increased investment in digital platforms by tier two banks such as NIC bank and its asset finance product, for which it has carved a niche as a market leader, has enabled it to increase its customer base, and thus an increase in market share. For other Tier II banks like the Housing Finance, the vibrant real estate market in Kenya with an annual housing supply which does not effectively meet demand, has continued to drive profitability upwards. The tier two banks have also diversified their revenue sources by introducing bancassurance and custodial services. However they are faced with a number of challenges, among them being, their traditional SME market is now being targeted by tier one banks, namely Equity and Cooperative banks, who have devised special products for SMEs such as Agro-dealer finance. There is also lack of a vibrant mortgage market in Kenya and again tier II banks face competition from tier one banks in the mortgage industry (Cytonn, 2017).

## **1.2 Statement of the Problem**

The financial crisis in the late 2000s showed the importance of commercial banks in world economy and thus the greater attention that needs to be paid to banks performance both locally and internationally, but especially so in the developing world where financial systems are not fully developed and banks being the main source of external financing for a majority of firms (Olweny & Shipho, 2011). In Kenya, the commercial banks have been experiencing major financial challenges not only during economic recession but also during normal economic periods. This has been attributed to possible lack of financial planning, inappropriate measures on financial distress and funds misappropriation (CBK, 2016). Despite the CBK introducing the Tier system of bank classification, for effective supervision of commercial banks, the sector

has still experienced failure in banks under Tier II classification. Some of the latest instances of failure in the banking sector has been the collapse of two banks, one of which has since been rebranded and the other still under statutory management (Kithinji, 2010). This study sets out to identify if the Tier System in Kenya banking has any influence on incidences of banking failure in the country. . . Mutua (2013) notes that commercial banks dominate the financial sector and warns of a dire situation should a collapse of any bank happen as it will have a contagion effect that could lead to bank runs, occasioning an overall financial crisis and economic turmoil

In 2010, the Central Bank of Kenya introduced three bank classifications which were aimed at classifying banks according to their financial strength as well as their reach in terms of market share (CBK, 2016). The report saw the introduction of Tier one banks (most powerful banks and with the most market share which are too big to collapse), Tier two banks (medium sized banks with medium market share and which have possibility of growing to tier one or falling to tier three) and Tier three banks (low sized banks with minimal financial power) (CBK, 2016). The purpose of this clustering was to enhance the banking supervisory role of the Central Bank, whereby more effort is directed towards banks with weak financial and capital metrics. Despite this structuring, however, it has been observed that some of the tier two banks which were thought to have more financial muscle than their tier three counterparts have fallen. It is not clear then which relationship there exist between bank tiers and financial performance.

Different studies have been conducted on the relationships between credit, risks, quality of managers and performance of banks. Aduda and Gitonga (2011) researched on relationship between credit risk management and profitability among commercial banks in Kenya. Ferrouhi (2014) studied bank liquidity and performance. Kolapo, Oke and Olaniyan (2018) investigated bank deposits and loans issued to private-public sectors and its nexus with economic development in a developing country, Kithinji (2010) determined the effect of credit risk

management and profitability of commercial banks in Kenya. Okemwa, Nyangáu and Getabu (2017) assessed the effects of enterprise risk management on financial performance of commercial banks in Kenya. Kajirwa (2018) studied the effects of capital adequacy on banks profitability. So far these studies have failed to explain the influence of financial services on the financial performance of commercial banks under their respective tiers in Kenya, and which this study aims to fill the gap by examining the influence of financial services (savings, loans and financial training) have on the financial performance of Tier II banks in Kenya.

### **1.3 Objectives of the Study**

The general and specific objectives of the study are laid down as follows:

#### ***1.3.1 General Objective:***

The general objective of this study was to investigate the influence of financial services on financial performance of tier two commercial banks in Kenya.

#### ***1.3.2 Specific Objectives:***

The specific objectives were:

- i) To assess the influence of saving services on the financial performance of Tier II commercial banks in Kenya.
- ii) To investigate the influence of loan services on the financial performance of Tier II banks in Kenya.
- iii) To determine the influence of financial training on the financial performance of Tier II banks in Kenya.

## **1.4 Research Questions**

The research questions were as follows:

- i) How does saving services influence financial performance of Tier II commercial banks in Kenya?
- ii) What is the influence of loans services on financial performance of Tier II commercial banks in Kenya?
- iii) What is the influence of financial training on financial performance of Tier II commercial banks in Kenya?

## **1.5 Significance of the Study**

This study will be of great benefit to the Directors and Managements of tier two commercial banks, the CBK, policy makers, bank lobbyists as well as academicians and scholars.

### ***1.5.1 Directors and Management of Tier Two Banks***

The study will be useful to Tier II banks' directors and management, who will be interested to know whether there is any impact arising out of the services they have provided. With the added knowledge, the banks will now be better placed to come up with savings and loans products tailored to meet their customers' needs and their ability to repay.

### ***1.5.2 Policy Makers***

The study findings will benefit the policy makers such as the CBK. Improving policies would help in improving the guiding principles on enhancing the performance of banks with an aim of improving their efficiency in bank regulation. Legislators will also have something to refer to before they come up with laws such as interest capping, which arguably causes more harm than good to the economy. The Kenya Bankers Association (KBA), the lobby group for Kenya

banks will have an additional reference point for the policies that they would wish to see implemented by the government. Development finance practitioners also will gain an insight as they continue to grapple with models designed to improve livelihoods for the poor of the poorest in the world and the attainment of Sustainable Development Goals (SDGs)

### ***1.5.3 Academicians and scholars***

Academicians and other scholars will benefit from these research findings. The study will advance existing body of knowledge on financial services and performance of commercial banks. The study will also provide important empirical literature which will enrich research work on the domain of financial services and performance of different bank tiers in Kenya.

## **1.6 Scope of the Study**

The study will be confined to the determination of the influence of financial services on the financial performance of tier two banks in Kenya. The independent variables are savings services, loans services and financial training. The dependent variable will be the financial performance of tier two commercial banks in Kenya. The study will focus on fourteen Tier II banks which have been registered and operational in the years between 2014 and 2018.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter covers the theoretical literature, empirical literature, research gaps, conceptual framework and operationalization of variables.

#### **2.2 Theoretical Review**

The study looked at four theories that formed the layout of the study. These are financial intermediation theory, resource based theory, loanable funds theory and modern portfolio theory, and they are explained further below.

##### **2.2.1 *Financial Intermediation Theory***

The theory of financial intermediation is believed to have been first explained by Raymond Goldsmith in 1969. Other researchers such as Howells and Bain (2008) have added that financial intermediaries, who are mainly financial institutions, bring together surplus units and deficits units together. The term financial intermediary refers to an institution, firm or individual who performs intermediation between two or more parties but in a financial context with one party being a provider of a financial product or service and the second party is a consumer or customer of that product or service (Tirmba, 2013). Financial intermediaries are typically financial institutions (deposit or non-deposit taking) and can be categorized into banks, building societies, credit unions, financial advisers or brokers, insurance companies, mutual funds and pension funds (Tirmba, 2013). A financial institution receives funds in form of deposits from savers and then lend out to borrowers on terms that are appealing to borrowers (Howells & Bain, 2008). Further, Howells and Bain (2008); Andries and Cuza, 2009 argues

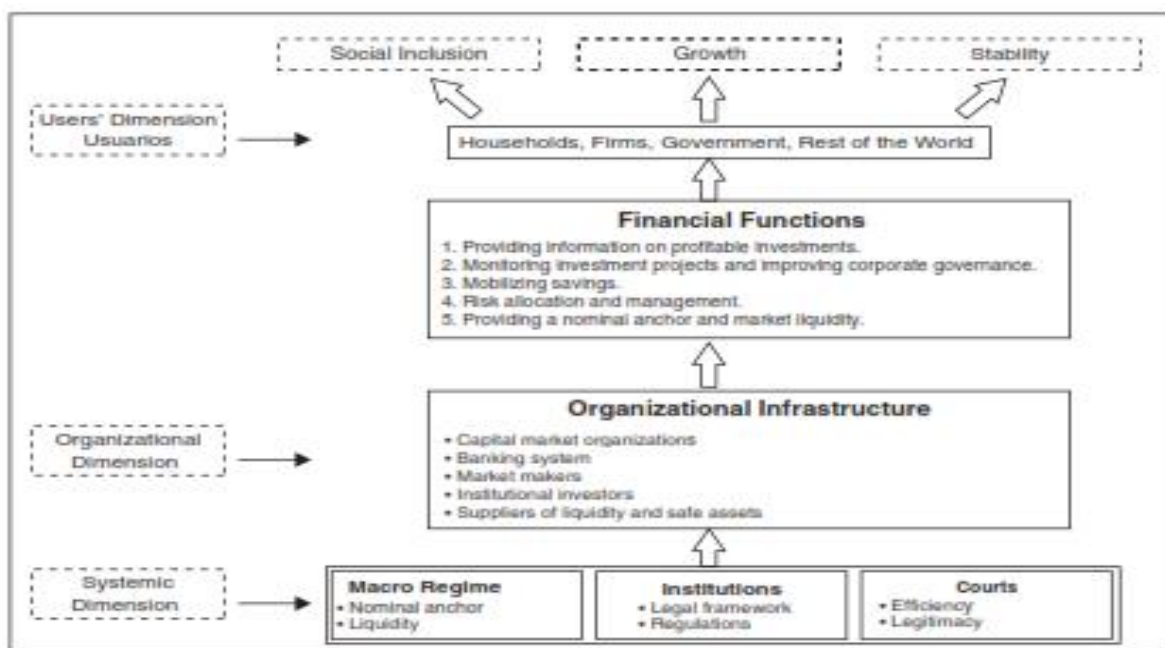
that the process of intermediation is not only about bringing the two units together, but to transform inputs into outputs, that is creating assets for lenders and liabilities for borrowers which are more appealing to either party, rather than if the parties had to deal with each other directly. This is clearly what financial services are about, whereby tier two banks, are entrusted with depositors (surplus units) funds through products such as current and savings account, then they create short and long term loans products for borrowers (deficient units) to choose from.

According to Kolapo, Oke and Olaniyan (2018), mobilization of savings by financial institutions is one of their main duties. They aver that as banks in a country mobilize savings from the savers' side, it is also imperative that the savings are channeled to the deficit spending units. They add on that commercial banks works as a system that generally act as financiers for short and medium term needs of both public (government & government agencies) and private sector borrowers. Hence they create the money they lend out to customers not as an individual bank but collectively as a system (Kolapo, Oke & Olaniyan 2018). They have a big role in ensuring sustainable economic growth and development, through the intermediation process of allocating resources between the surplus units (those with savings in the banks) and the deficit units (those who requires the funds deposited by savers).

Banks have a key function of facilitating credit flow from the savers' side to the users' group in an economy, and in that process, they create a multiplicity of investments, which serve as one of the drivers of economic growth and economic development (Kolapo, Oke & Olaniyan 2018). Andries and Cuza (2009), analyses the modern theory of financial intermediation, mainly from the point of view in which the intermediation function impacts the economy and the result of policies/interventions enacted by the government, on the financial intermediaries. Thus the financial intermediation theory underscores the role played by financial intermediaries in an economy, their role in achieving a steadfast economic growth,

and the impact that government regulations have on financial intermediation, thereby underlining the role that Central Banks have in the regulation, supervision, and control of financial intermediaries (Andries & Cuza, 2009). As summarized by Aduda & Kalunda (2012), there are five main roles that financial intermediaries play and these are acquisition of information on borrowers, provision of risk reduced agreements, accumulation of capital, improvement of corporate governance and the easing of the transaction process.

**Figure 2.1: Anatomy and Functions of Financial Intermediation**



(Source: Frenkel, 2016)

The figure above depicts the anatomy and functions of financial intermediation. The organizational infrastructure, financial functions and households, firms and government are the players in the intermediation process. Each of the parties have their own goals to achieve in the process. For households, the motivation is for social inclusion and growth. Firms are interested in growth and stability, while the government interest is to maintain macroeconomic stability in the financial markets (Frenkel, 2016)

The position of the regulator in the intermediation process is sometimes overlooked. Regulation of financial intermediaries is costly, meeting administrative costs and salaries of

supervisors employed by the regulator. This has an effect of increasing transaction costs (Scholtens & Wensveen, 2003). Regulators, though allowing the invisible hand of the market forces to determine the cost of funds are not hesitant to intervene, as in the Kenyan case, when commercial banks show unrestrained urge to increase interest rates on loans and not doing the same for deposits. The regulator also, in this case the CBK, facilitates trade between parties through the offering of a national payment settlement and clearing system. Scholten and Wensveen (2003) rightfully posit that the financial intermediation exists due to the market imperfections that prevent savers and investors from trading directly.

Chege (2012) notes that information is the key to the intermediation process and that lack of information leads to a situation of asymmetry in which one party in a transaction has more or superior information compared to another. That is, information is held by one, but not all of the parties to a transaction. It sets in when the business owners or/and managers have more information on the prospects of risks and rewards that their businesses faces than the lenders have (Panigrahi, 2012). Yuwei (2005) is of the opinion that information asymmetry is a form of market failure, where one contracting party has a lot of private information, that is not available to the other contracting party, which is likely to have the former exploiting the latter. Among the characteristics of perfect financial markets is that information is obtained freely at no cost and that all the parties have unfettered access to all the information with regard to the issues that may impact on the current and future value of financial instruments (Andries & Cuza, 2009). But the market being imperfect, the lender ends up incurring higher transaction and monitoring costs. Transaction costs is defined by Arshadi and Karels (1997), as the costs of search and information, contracting and monitoring, and the cost of incentive problems between buyers and sellers of goods and services.

However, Allen and Santomero (1998) have critiqued the traditional theory of intermediation. According to them, the intermediation theory is too focused on the functions

of institutions that are no longer relevant in many developed economies with complex financial systems. Most literature emphasizes on the reduction of frictions of transaction costs and information asymmetry, and though this may have been at the heart of the intermediation function in the past, they are increasingly becoming less relevant today (Allen & Santomero, 1998). Scholtens and Wensveen (2003) appear to concur with this statement, and to them, the reality is that financial intermediation has moved from its traditional role to value creation which is driven by risk and risk management. But worthy of note is their observation that whereas transaction costs and information asymmetry has declined and the level of intermediation increased, this has mainly been occurring in economies that have highly developed financial systems (Allen & Santomero, 1998).

As is noted above, financial intermediation has inherent risks of information asymmetry, increased transaction costs and moral hazard. Okello, Munene & Mulinga (2017) suggests that these problems may be solved through use of social networking as a means of accessing financial services. In their study on financial intermediation and financial inclusion of poor households: Mediating role of social networks in rural Uganda, they encourage financial institutions to make use of information available through social networks e.g. village based associations to determine good and bad borrowers, thus enhancing the chances of the poor accessing credit at a cheaper cost. In this way the problem of adverse selection and moral hazards in lending is minimized (Okello, Munene & Mulinga, 2017).

However, the traditional solution favoured by most lenders to deal with information asymmetry and transaction costs is to increase the lending margins to levels in excess of that which the inherent risks would require if there was no information asymmetry (Panigrahi, 2012). Commercial banks are also wary that some borrowers will willfully default (borrowers with questionable integrity) or to be in a situation where they will not be able to repay due to unforeseen circumstances such as death or disability arising from illness, accidents or even

Acts of God (Christensen, 1993). Commercial banks tend to also demand for collateral to mitigate against the risk of default. However with advent of bancassurance, most loans are insured against death and Acts of God. Nature of collateral has in modern times changed from demand of land title deeds to contracts of employment, Local Purchase Orders (LPO) for Small and Medium Enterprises (SMEs) and warehouse receipting for the agricultural sector.

As noted earlier (Odunga *et al*, 2013) banks need to provide intermediation services efficiently by directing a nation's savings to the ventures that expects to realize the highest social returns. While noting that banks that are inefficient and wastefully negatively impact economic growth and reduce society's welfare, the efficient ones in the intermediation process enables allocation of resources to their most productive use (Odunga *et al*, 2013). Thus this theory is relevant to this study as it explains the objective of savings mobilization and its relations to loans offered by financial intermediaries such as Tier II banks.

### **2.2.2 Resource Based Theory**

The Resource Based Theory (RBT) was first developed by Birger Werner Felt in 1984. Barney, Wright and Ketchel (2001), citing a study by Barney (1991) in their study of resource based view of the firm ten years later, reasoned that continued economic benefits comes from the resources and competences a firm has in its possession. The properties of these resources are that they are valuable, rare, imperfectly imitable, and not substitutable. These resources and abilities can be viewed as package of physical and non-physical assets, tangible and intangible and they form an organisation pool of resources. They include a firm's management skills, its organizational processes and routines and the information and knowledge it controls. Andre (2004) has described the process of empowerment of black people in South Africa to have encompassed skills transfer and financial training as part of empowerment. Banks in Kenya in general are run by resourceful people, who continuously scan the environment for opportunities

for additional business, are in cut throat competition with each other and thus must continue to innovate and come up with new products to ensure the survival of their organization. Also, resource-based theorists hold that human assets are a source of sustainable advantage because knowledge gained from experience and social complexity are hard to imitate and thus the importance of human resources in any organisation (Purcell 2003).

In their study on Effect of Internet Banking on Financial Performance of Tier One Commercial Banks in Kenya, Noah, Jagongo & Ndede (2019) explained that a firm's resources is defined as the tangible and intangible (human and organizational assets) which may be used to produce value developing plans. The resources are either tangible or intangible resources. The intangible resources include intellectual properties, personal knowledge and experience, technology, culture, brand and reputation. They concluded that the theory was suitable for the study since for a firm to grow and progress, specifically with regard to its profitability, it then ought to manage its assets well in a way that the best probable results can be achieved and especially where it relates to banking business, they ought to be able to manage their resources in manner which the staff, customers, shareholders and other beneficiaries will view the banks as the optimal outlet to place their funds instead of other non-bank financial institutions.

Garcia (2005) examined the relationship between training policies and business performance, that is, the impact that training has on firms. A theoretical model based on the hypothesis of a 'cascade-type relationship' between four types of organizational performance was used. The findings from Spanish firms sampled showed that training policy based on the human capital theory and the resource-based theory has a significant impact on firm performance. Sanchez, Aragon and Valle (2003) studied the effects of training on performance measuring its effectiveness and profitability using a sample of four hundred and fifty seven SMEs in Europe. From the onset they conceded that there is a general agreement that training is an important tool that can help a firm gain a competitive advantage over other firms.

However the study noted that the training of staff is quite low, partly due to the fact that there is no assessment carried out later on the effect of the training on the performance of the trainees and overallly the economic impact it has on the company apart from the cost incurred on such training, and incidentally as companies rationalize their costs, training budgets are the first to suffer cuts. But the study still found out that there is a strong link between training and trainees outputs as there was a marked improvement in performance.

Alvarez and Busenith (2001) examined relationship between RBT and entrepreneurship and noted that individual entrepreneurs have mental abilities that allow them to recognise new opportunities, assemble resources and organize resources into a firm. Corner and Prahad (1996) had earlier stretched the thinking of the RBT theory to indicate that entrepreneurship is not only opportunity based and requires more than the entrepreneurs cognitive abilities. Firm organisation and market contracting requires knowledge to be applied to business activity. They point out that knowledge base considerations heavily outweigh opportunism related considerations making a point for the need for continuous training. Thus the Resource Based Theory is important for this study as it explains the importance of resources which can be attributable to the human resources through financial training offered by Tier II banks.

### ***2.2.3 Loanable Funds Theory***

This theory was developed by Wicksell (1851) who considered that the supply of loanable capital was affected by the rates of interest. The theory argues that both borrowers and lenders ought to be well compensated to an equilibrium point of mutual benefit. While borrowers benefit from the available surpluses of lenders, lenders on the other hand should benefit from the amount lent in the form of interest. According to the theory, in order for the lenders to save their money with financial institutions, they desire a good return. Good returns in the form of

interest rates will attract new and current lenders to even save more which will make the amount available for lending grow (Wicksell, 1851).

Ondiek and Jagongo (2013) have aptly provided a workable definition of the loanable funds theory in their study of effects of lowered CBK rate on bank's base rate which is offered to credit worthy customers. Their study was anchored on the loanable funds theory and they considered this theory as a vibrant and optimizing theory of bank operation that incorporates understanding of production theory, financial intermediation and portfolio theories. Thus the single model clarifies the relationships between the risks of assets portfolio and bank's services (which is basically financial services), determines the rate of return on loans and banks' borrowed funds and, in turn, the discount rate used to derive the present value of future profits, part of which are generated by bank financial services (Ondieki & Jagongo, 2013). They also hold that this model can resolve some long-time conceptual debates in the bank production literature, mainly the one regarding the role of deposits. It demonstrates that deposit funds are materials or inputs required in the generation of new loans, but the transaction services associated with deposits are part of bank output. It also provides a theoretical basis for measuring bank output by identifying the value-added components of a bank's gross output (Ondieki & Jagongo, 2013)

Recent studies however are critical of the above assumption. For example Lindner (2014) in his study on whether savings increases the supply of credit, holds that the doctrine held by many economists that savings finances investment (basis of loanable funds theory (Robertson, 1936; Ohlin, 1937a,c,b; Tsiang, 1956)) is either wrong or rests on highly arbitrary assumptions (Lindner 2014). The studies disagrees that the amount that can be lent out at any given time depends on the amount saved during the same period, and thus lending is limited to the savings available. Linder (2014) concludes that it is not necessary for absence of

consumption for more credit to be available and he instead states that the provision of money via credit is a portfolio decision: lenders who cannot issue money themselves exchange one financial asset - money - for another financial asset - a loan or a newly issued bond. Lenders such as commercial or central banks which can issue money extend their balance sheets by simultaneously increasing their financial assets - the newly created loan - and their liabilities - the newly created deposit which is the amount borrowed, through creation of money.

Jakab and Kumhoff (2015) appears to have the same views. In their study contrasting simple intermediation and financing models of banking, they state that banks arrange credit through money creation. They create deposits of new money through lending, and in doing so are mainly constrained by profitability and solvency considerations. Thus in essence they create a borrower through the money created and at the same time the lent funds become a deposit (Jakab & Kumhof, 2015). Despite all the controversies surrounding the loanable funds theory, there is enough evidence to show that deposits are the banks main raw material used for lending. Thus this theory is relevant to the study as it will look at both sides of the banks' Statement of Financial Position (Loans and deposits) and how that influences performance of tier two banks in terms of their profitability and liquidity.

#### ***2.2.4 Modern Portfolio Theory***

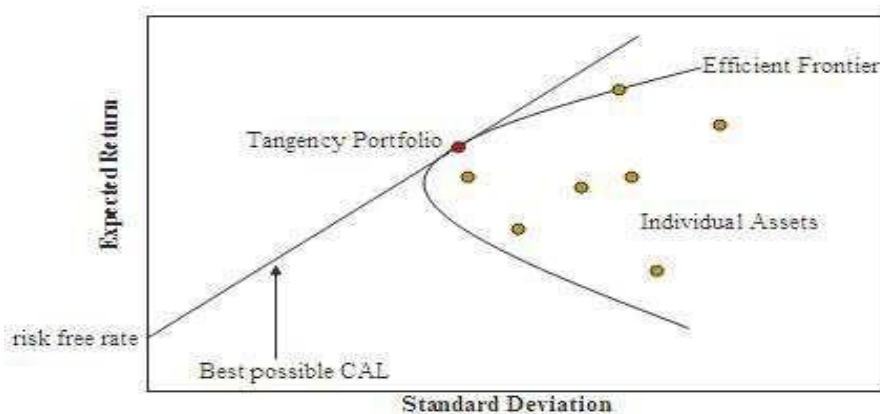
Modern Portfolio Theory is an economic theory developed by Harry Markowitz in 1952 and published in a journal of finance, which tried to explain an investor attitude towards risk and returns. Portfolio is considered to be the total of all investments held by an individual or institutional investor. A Portfolio can consist of share securities and bonds (equity & debt instruments), real estates, derivatives and money market instruments (Nyaga, 2014). Portfolio may also be defined as a collection of financial assets such stocks, bonds and cash equivalents, as well as their mutual, exchange-traded and closed-fund counterparts (Mbogo, 2012). Portfolio theory follows the maxim of not putting one's all eggs in one basket (Mbogo, 2012).

Mbogo and Aduda (2016) investigated the effects of Portfolio Size on the Financial Performance of Portfolios of Investment Firms in Kenya and found out that majority of investment firms preferred to allocate more funds into stocks, followed by real estate portfolio and the least holding was in bond and money market funds but naturally because the highest returns were found to be in stocks portfolio followed by bond and money market. Real estate portfolio had the least returns.

The risk of a portfolio is the likelihood that any or all of the assets in a particular portfolio may fail to meet the expected rate of return desired by the investor (Nyaga, 2014). The MPT theory considers the investors to be rational and will only accept the largest expected return at a given level of risk. The backbone of this theory is that every investor should hold an optimal portfolio that is fully diversified (Nyamute, 2016). MPT tries to understand the market and defines the assets statistically in terms of their expected long term Rate of Return (RoR) and short term unpredictability, which is equated with risk. The aim is to determine acceptable levels of risk tolerance and then find a portfolio having maximum return for the risk level accepted (Nyamute, 2016). Markowitz came up with a way of calculating how investors can maximise their returns through a combination of assets, holding an optimal portfolio that is well diversified. Whereas investors are assumed to be rational beings and risk averse, an overview of stock trading behaviour observed by Barber and Odean (2011) indicates that investors underperform standard expectation, sell off good stocks while retaining losing investments (disposition effect), are heavily influenced by past return performance (behaviour of past IPOs for instance) in their purchase decisions, engage in naive reinforcement learning by repeating past behaviors that coincided with pleasure while avoiding past behaviors that generated pain, and they tend to hold an undiversified stock portfolios. Nyamute (2016) agrees with this thinking and adds that not many investors consider MPT, nor interrelationship among

the assets at the point of buying securities. Their main consideration is the return they expect from each asset individually and not collectively as a portfolio.

Modern Portfolio Theory (MPT) quantifies the risk in a portfolio of diversified assets. Diversification is the key component of Portfolio theory. It means choosing an optimal portfolio from a number of possible portfolios. Method for selection is by use of indifference curves (Chepkorir, 2019). However some risk such as market risks cannot be eliminated through diversification (Mutuku, 2011).



**Source: Markowitz Portfolio Model** (Adopted from Ondari (2012), Pp4)

An indifference curve represents a set of risk and expected return combinations that provide an investor with the same amount of utility (Ondari, 2012). They indicate the preferences for reward and risks, and can be plotted on a graph with one axis (X-axis) representing the risk and the other axis (Y-axis) representing the pay off as shown in the above figure. An investor who is risk averse would opt for portfolio on the northwest of the indifference curve, where risk is low (Ondari, 2012).

Each stock has a standard deviation from the mean, which is a measure of the risk from a particular asset. In a well-diversified portfolio, the losses from a risky asset is countered by the gains from another asset or a risk free asset. The MPT focusses on end period expected values for each security, and the totals of the each security's return forms the entire expected rate returns of a portfolio. In essence it implies that for an investor who is only interested in

highest expected rate of returns, he should keep only one security that has the highest expected rate of return (Saiduzzaman, 2016).

Critics of the Modern Portfolio Theory say that majority of investors do not consider MPT when making investment decisions. Mwanzia (2019) cites the case of Warren Buffet who is a major financial market player. Buffet has managed many successful business takeovers. His modus operandi is that he usually takes a position at the board and closely directs the operations of those firms. Mwanzia (2019) avers that his managerial acumen is the key to positive rate of returns and not portfolio theory considerations. The attainment of the optimal portfolio also continues to baffle scholars. Nyenze (2010); Kagunda (2010) were unable to conclude on what constitutes an optimal portfolio and the number of stocks required to make the optimal portfolio, and also whether portfolio size affects the risks and returns. Others like Ogutu (2014) suggests that diversification cannot eliminate all the risk associated with a risky investment since unsystematic risks, which are unique to individual assets, tend to reduce in a large portfolio, but systematic risks (market risks) which affect all of the assets in a portfolio do not reduce. Brière, Druit, Mignon, Oosterli, & Szafarz (2011) indicates that mean variance efficiency tests developed assumes the presence of a riskless asset, but in reality such assets do not exist. No asset can be described as completely bearing no risk and the 2008 global financial crisis is a good pointer to this. During the crisis, even the presumed safe assets, namely sovereign bonds issued by developed countries, were exposed to default risk. The freezing of the money markets and the collapse of Lehman Brothers' manifested the inherent liquidity risks associated with cash investments

Tier II commercial banks in Kenya have diversified their operations and incorporated investment banks as subsidiaries licensed by the Capital Markets Authority (CMA) to provide services in capacities such as investment analysts, fund managers and investment managers.

Investors are driven to invest if they receive their expected rate of return that rewards them for the risk taken, at the end of the period in which they are holding the assets. Portfolio theory deals with selection of these assets that will offer maximum returns at the risk level accepted (Mwanzia, 2019). Because of this, Mwanzia (2019) states that bank managements need to adopt judicious financial management practices in order to instill control within the various portfolios with the aim of maximizing returns on each portfolio for the bank and also for their customers. The portfolio theory is relevant to this study since a substantial amount of the bank's net income are derived from securities traded in the securities exchange

### **2.3 Empirical Literature**

This section reviews the existing studies carried out on the influence of predictor variables savings services, loans services and financial training on the financial performance of Tier II commercial banks in Kenya

#### ***2.3.1 Savings Services and Financial Performance of Tier Two Commercial Banks in Kenya***

Linder (2014) describes savings as excess of income over consumption. Muriithi and Mureithi (2015) researched on the Influence of Gender in the Saving Culture of Sacco members and defined savings as the difference between income and consumption. They observed that saving is a key component in any development endeavor as it is believed to be the surest way of increasing income and boosting productivity in an attempt to break through the vicious cycle of poverty. The purpose of the study was to establish gender differences in saving culture. The study adopted a descriptive survey design and targeted all business and agricultural based SACCO members and officials in Nyandarua County. They held that there is an inverse relationship between savings and consumption, when all other factors are held constant.

Commercial banks by their definition are saving institutions (Avery & Samolyk, 2000). Mutesasira, Sempangi, Hulme, Rutherford, & Wright (1998), states that savings have an impact on individuals in terms of wealth accumulation to finance a household's long-term goals, serves as an insurance against disability, diseases, retirement, sudden income losses and other contingencies. Savings also safeguard the individual against uneven income streams due to seasonal variations as well as savings for future investments in such things as education and other human resource development investments. Tier two commercial banks serves this purpose by providing a means through which savings can be channeled. In turn the banks use this savings to lend to deficient units and thus earn interest from the sums advanced, thus impacting on their financial performance.

According to Mavrotas and Kelly (2001), in their study linking savings mobilization and financial sector development, there is a link between mobilizing savings and financial sector development. In an earlier similar study done in 1999, the two acknowledged that mobilization of savings of a country's population provide more credit for fixed capital formation than the reliance of donor funds. This is in relation to policies introduced by international lenders to developing countries such as concessionary discount facilities in Central Banks, high reserve requirements and extensive use of targeted credit programs that tended to discourage savings mobilization, since it was a not a requirement for accessing the funds. These donor models overlooked the numerous small savers that existed in a country that was an available source of internally generated funds. Banks on the other hand have products that aid in mobilizing deposits from surplus units.

### ***2.3.2 Loans Services and Financial Performance of Tier Two Commercial Banks in Kenya***

Kithinji (2010), in the study on credit risk management and profitability of commercial banks in Kenya, found out that commercial banks faces some risks among them, cases of loans default and non-performing loans. Some of the measures formulated to mitigate against the mentioned risks include maintenance of cash balances with the CBK. This has the effect of reducing the amount of money that is available for lending, thus reducing interest income receivable and ultimately reduction in profits. The conclusion was that the provision of loan services has an effect on financial performance of banks. On the other hand, Benjamin (2013) in the study of effects of microfinance credit on growth of medium scale enterprises in Mwanza region got contradicting results. The study employed descriptive statistics and used a sample size of seventy enterprises derived from five businesses. The study found a negative relationship between access to credit and firm performance.

Kolapo, Ayeni and Oke (2012) carried out a study on quantitative effect of credit risk on the performance of commercial banks in Nigeria. They selected five commercial banks on a cross sectional basis for eleven years. The traditional profit theory was employed to formulate profit, measured by Return on Asset (ROA), as a function of the ratio of non-performing loan to loan & Advances (NPL/LA), ratio of Total loan & Advances to Total deposit (LA/TD) and the ratio of loan loss provision to classified loans (LLP/CL) as measures of credit risk. Panel model analysis was used to estimate the determinants of the profit function. The findings were that the effect of credit risk on bank performance as measured by the ROA of banks is similar across all banks, though the degree to which individual banks are affected is not captured by the method of analysis used in the study. It was noted that a 100% increase in non-performing loans and loan loss provisions, reduces profitability by 6.2% and 0.65% respectively. However, a similar increase in total loan and advances increased profitability by 9.6%. Based on the above findings, it is apparent that loan services do have an effect in the financial performance

of banks. As earlier noted efficient management of loans has an effect on the borrowers and the lending institutions (banks) and thus need to effectively manage loans services, since non-performing loans would negatively affect commercial banks financial position (Mogga, Mwambia & Kithinji, 2018).

### ***2.3.3 Financial Training and Financial Performance of Tier Two Commercial Banks in Kenya***

Storey and Whitehead (1996) reviewed research which examined the relationship between firm performance, growth or survival and participation in management training. They noted that a number of training initiatives had been launched in the UK to improve the internal efficiency and business performance of businesses. This was in recognition that training can be a powerful agent of change which facilitates and enables a company to grow and develop its capabilities thereby enhancing its profitability. However, even after noting so, their conclusion was that the relationship between business performance and management training could not be established conclusively.

According to Sandra (2010), in a study meant to identify obstacles, and thus propose an approach to develop a more standardized measure of financial literacy like in other disciplines such as health, the terms financial education, financial literacy and financial knowledge are often used interchangeably. Typically, financial literacy indicators are used as inputs to model the need for financial education and explain variation in financial outcomes such as savings, investing and debt behaviour. Financial literacy can be conceptualized as having two dimensions; understanding which is financial knowledge, and use i.e personal finance application. Thus it is a measure of how well an individual can understand and use personal finance related information (Sandra, 2010).

Maartenyan, Annamaria & Alessie (2011) devised two modules for household survey to measure financial literacy and study its relationship to stock market participation. Their findings were that majority of respondents displayed basic financial knowledge and had some grasp of financial concepts such as compound interest and inflation. Another key finding was that financial literacy affects financial decision making and that those with above average financial literacy were more likely to invest in stocks. They also noted that not many respondents went beyond the basic concepts. This establishes a gap for further financial training.

Braunstein and Welch (2002) in their study of financial literacy; an overview of practice, research and policy confirms that financial literacy has gained the attention of a wide range of banking companies. They state that market operations and competitive forces are compromised when customers lack the skills to manage their finances effectively, which can easily lead to them becoming easily vulnerable to severe financial crises. They note that the concern about financial literacy has increased and thus financial literacy programmes are being offered, with some providing comprehensive information on savings and credit for a broad audience, while others are specifically tailored for groups such as youth or military personnel, or specific goals such as home ownership (Braunstein & Welch, 2002). The study however noted that effectiveness of the financial training has been mixed and improved financial behaviour does not automatically accrue from financial training. Human traits (aversion to change), timing and format of the training have an effect on whether the financial training will have an impact. Noted areas of improvement have been consumers' personal financial management such as in maintaining mortgage and increasing savings.

Tomaskova, Mohaska and Nemcova (2011) also hold that it is necessary for people to have financial literacy, which is a set of skills and knowledge necessary for them to financially secure themselves and to behave actively in the financial markets. Individuals who are

financially literate are well conversant with issues to do with funds and market prices, and have a personal budget that they are able to manage responsibly. Accordingly, finances are important part of everyday life and financial literacy is the best way to prevent people's over-indebtedness and they suggest that this training should be started in the formative stages of individuals (Tomaskova, Mohaska & Nemcova 2011).

Kessy and Temu (2010) studied the impact of training on performance of micro and small enterprises served by microfinance institutions in Tanzania. The study examined the difference between two groups of microfinance client. The owners of one group of enterprises had received financial training while the other group had not. The results indicated a marked difference in the two since the businesses owned by those who undertook business training had higher value of assets and also higher sales turnover when compared to businesses of those who did not receive training. The study proved that business skills training for SMEs is vital for firm's output, growth and in addition to credit access. This has a positive impact on the lender too since with improved SME performance, means an increase in savings and patronage of credit products.

Zhan, Anderson and Scot (2006) studied effects of a financial education programme on financial knowledge of low-income population. It examined effects of one large financial management training course carried out for low-income people. The sample size was made up of one hundred sixty three participants. The test was designed to measure basic knowledge of participants in five content areas, predatory lending practices, public and work-related benefits, banking practices, savings and investing strategies, and credit use and interest rates. Their findings were that the financial knowledge of the participants were markedly improved in each of the five content areas.

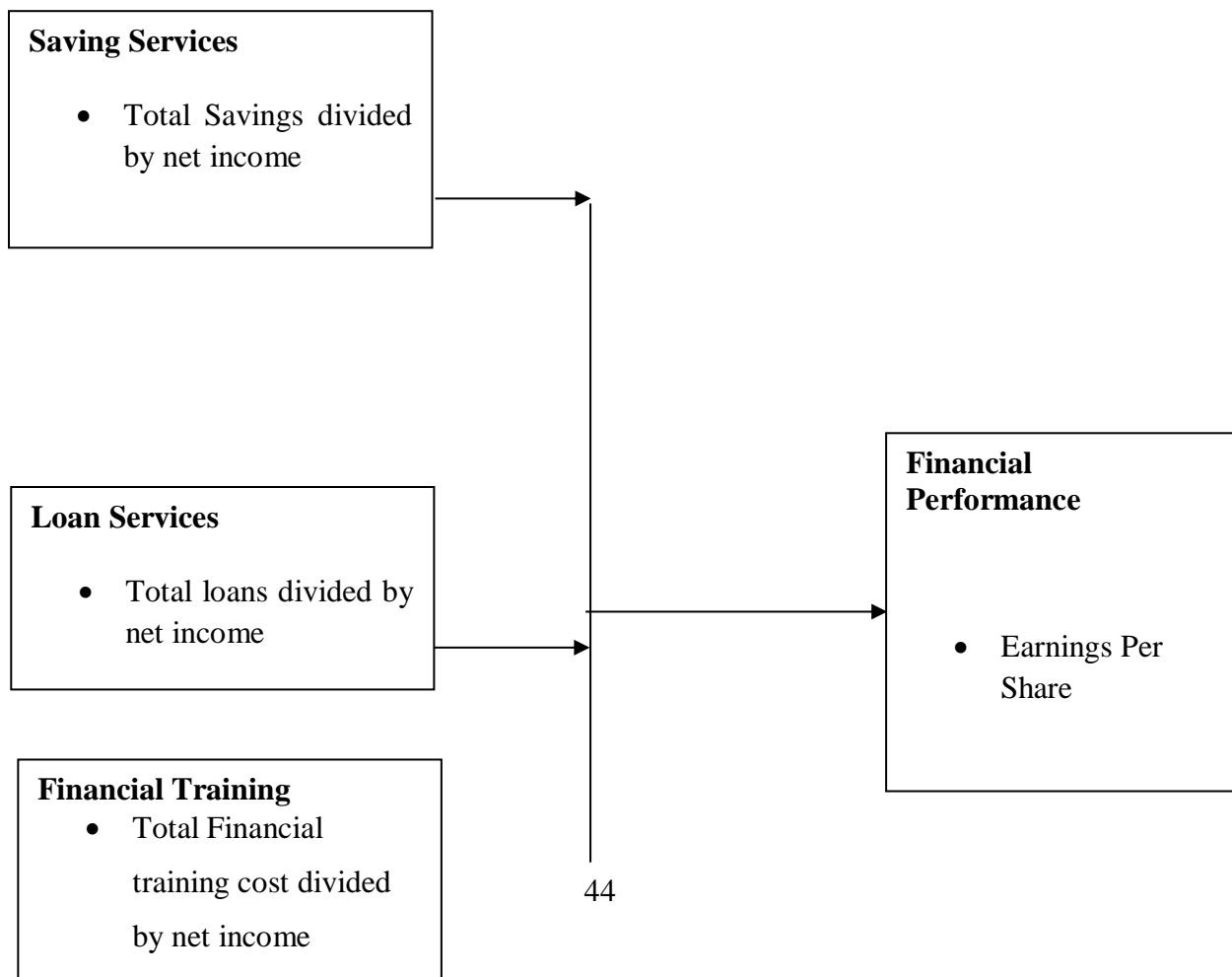
## 2.4 Knowledge Gap

From the reviewed empirical literature, it is evident that commercial banks have a great effect on the performance of the economy through the financial services that they offer. Scholars identified various factors which contribute to the success and growth of tier two banks in Kenya which includes adequate managerial training and experience, better infrastructure, adequate financial capital and sufficient market information. Tier two banks have the ability and opportunity to reach to the type of customers that are unattractive to tier one bank, due to their low bank balances and inadequate collateral. Thus the provision of these financial services is expected to impact on the financial performance of tier two banks. However this effect has not clearly being established. It is in the face of such that this study aims at filling the gap by establishing the influence of financial services on the financial performance of tier two banks in Kenya.

## 2.5 Conceptual Framework

Independent Variables

Dependent Variable





**Figure 2.2: Conceptual Framework**

## 2.6 Operationalization of Variables

**Table 2.1: Operationalization of Variables**

<b>Variable</b>	<b>Description</b>	<b>Specific Measure</b>	<b>Measurement Scale</b>
Saving Services	Deposits held by banks from customers outstanding at the end of the financial year	Total Savings divided by the Net income	Ratio
Loan Services	Amount of money disbursed to customers and outstanding at the end of the financial year	Total loans divided by the Net income	Ratio
Financial Training	Amount of money spent by banks on the training of staff and customers on finance	Total cost of Financial Trainings divided by net income	Ratio
Financial Performance	Profit after tax recorded by Tier II banks	Earnings per share Net Income divided by number of ordinary shares	Ratio

## **CHAPTER THREE**

### **METHODOLOGY**

#### ***3.1 Introduction***

This chapter explains in details the research design, the target population and the sample selected for the study. It also describes the data collection tools and how the data entry and analysis was carried out.

#### ***3.2 Research Design***

According to Zikmund (2003), in basic research, theory is the guide that helps generate hypothesis. Once the hypotheses have been developed, researchers are able to select the research design appropriate to the study. A research design is a master plan specifying the ways and means for collecting and analysing the data collected (Zikmund 2003). This study used descriptive research design method. According to Kothari (2008), a descriptive design helps to expound more on the how, when, where, which and whom questions. These questions are crucial for understanding the influence of financial services on performance of tier two commercial banks. Descriptive research designs are usually organized and specifically aimed at gauging the features outlined in a research question (Kothari, 2008).

#### ***3.3 Target Population***

Target population refers to all items in any field of inquiry, which constitutes a universe or population (Kothari, 2004). Mugenda and Mugenda (2008) earlier defined a target population as that population to which a researcher wants to generalize the results of the study. It is a universal set of the study of all members of real or hypothetical set of events, objects or people to whom a researcher wishes to generalize the result. The target population in this study was

the second tier banks in Kenya. According to the CBK (2016), there are 14 second tier banks in Kenya. Due to the small population size,  $n < 100$ , a census study was done.

### ***3.4 Research Instrument and Data Collection***

The study used secondary data. Secondary data was collected from reports of the CBK and the Commercial Banks financial reports posted in the bank's websites. The data was collected and recorded in a Microsoft Excel worksheet. The study covered a five year duration from 2014 to 2018 using annual financial reporting data. The research selected the closest end year of the study and then going backwards five years. There was merger of NIC and CBA banks in 2019, thus converting NIC Bank from Tier II bank into Tier 1 and so the year 2019 could not be selected. Thus 2018 was picked as the end year and 2014 the start year. Also from 2014, the Tier II banks started showing strong results in terms of increase in profits, asset base and customer deposits and even managed to reduce the market share of Tier I banks by 6.2%.

### **3.5 Data Analysis and Presentation**

To realize the objectives of the study, longitudinal data of fourteen Tier II commercial banks in Kenya for five years from 2014 to 2018 was used. Panel data is advantageous in that it provides both the cross-sectional and time series information, capturing individual variability and the dynamic nature of the data over a period of time. And hence it ensures less collinearity, efficiency, variability and more degrees of freedom (Gujarati, 1995). With panel data, the fixed- and random-effects models are the most frequently used techniques. Secondly, in order to obtain consistent and efficient estimator, this thesis controlled for some diagnostic tests such as heteroscedasticity, and multicollinearity. The Hausman Test, also referred to as test for model misapplication was applied to choose between Fixed Effect (FE) Model and Random

Effect (RE) Model. The analysis showed that the RE model was the appropriate model for analysis

### ***3.5.1 Diagnostic Tests***

Diagnostic tests were conducted to check the validity of the model based on the assumption of the classical linear regression. The tests done were tests on heteroscedasticity, multicollinearity, normality and autocorrelation.

#### ***Heteroscedasticity***

Heteroscedasticity exists if the error term is not the same across the independent variable values i.e. the variance does not change for each observation or for a range of observations in the model. Heteroscedasticity makes ordinary least squares (OLS) regression estimates to be biased, estimators to be inefficient and tests of hypotheses (F-test, t-test etc.) to be invalid. The research conducted a Spearman's rank correlation test to determine if heteroscedasticity exists.

#### ***Multicollinearity***

Multicollinearity assumes an exactly linear relationship among regressors (Gujarati 1995). It can sometimes be encountered in time series data because the variables under study might follow a given trend. The variables may be increasing or decreasing over time. Multicollinearity renders the coefficient of regression indeterminate. Multicollinearity also makes the standard errors to be infinite. What is important when it comes to multicollinearity is the degree (Gujarati, 1995). The Variance Inflation Factors (VIF) test was used to determine if multicollinearity existed.

### ***Test for Normality***

The error term represents all the variables affecting the dependent variable but which are not part of the model. It should be normally distributed with a mean of zero and a constant variance indicated as  $\mu (0, \sigma^2)$ . However, it is often assumed that omitted variables will have minimal impact on the dependent variable. If OLS is to be used, residuals the error term should be approximately normally distributed (Gujarati, 1995). Histogram is bell shaped where the residuals have a normal distribution and the Bera-Jarque statistic (goodness of fit test of whether sample data exhibits the skewness and kurtosis matching a normal distribution) would be insignificant (Brooks, 2008). The p value of the normality test should be  $p > 0.05$ . To determine whether the error term and associated residuals are normally distributed, the researcher conducted Shapiro-Wilks test.

### ***Test for Autocorrelation***

Time-series data often display autocorrelation, or serial correlation of the disturbances across periods (Greene, 2003). Existence of autocorrelation in a regression model implies that the model is misspecified (key variables are missing in the model) and computed standard errors and subsequently, p-values would be misleading. Autocorrelation can be addressed by including the missing variables and or explicitly modelling it. The Wooldridge test was carried out to evaluate if there is autocorrelation. The Wooldridge test for autocorrelation in panel data is used to test for any presence of serial correlation with a null hypothesis stating that there is no first order autocorrelation in panel and it is rejected if the p value is less than 0.05

### ***3.5.2 Regression Model***

A multiple regression model was undertaken to study the relationship between the factors studied here. A multiple regression analysis has the benefit of estimating the coefficients of the

linear equation where there is more than one independent variable. In our case they are three (Cooper & Schindler, 2011). To assess and identify the collective effect of three independent variables in our study and the dependent variable, multiple regression model was used. The general model equation for the analysis was:

$$Y_{it} = \beta_0 + \beta X_{it} + \mu_{it} \dots \dots \dots (1)$$

Where,

$Y_{it}$  = is the dependent Variable

$X_{it}$  = is the independent variables

$i$  = the no. of banks,

$t$  = is the no. of observations

$t$  denotes the time dimension while  $i$  denotes the cross section dimension of the parameters.

The preceding general model, the influence of saving services, loans services, and financial training on the financial performance of Tier II banks in Kenya as measured by their EPS was evaluated using the following model:

$$EPS_{it} = \beta_0 + \beta_1 S_{it} + \beta_2 L_{it} + \beta_3 F_{it} \dots \dots \dots (2)$$

Where,

$EPS_{it}$  is the Earnings Per Share of bank  $i$  in year  $t$

$S_{it}$  is the Saving Services made to bank  $i$  in year  $t$

$L_{it}$  is the loans services of bank  $i$  in year  $t$

$F_{it}$  is the financial training costs by bank  $i$  in year  $t$

The objective of this study was to evaluate the influence of savings services, loans services and financial training on the financial performance of Tier II banks in Kenya, where the financial performance is measured in Earnings per Share (EPS).

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND FINDINGS

#### 4.1 Introduction

This chapter presents analysis and findings of the study as set out in the research objective and research methodology. The general objective of the study was to establish the influence of financial services on performance of tier two banks in Kenya. Secondary data was collected from fourteen tier two commercial banks in Kenya, using the CBK supervision reports and the Commercial Banks financial reports posted in the bank's websites, over a five year period from year 2014 to 2018, recorded in an MS Excel spreadsheet and analyzed using STATA and presented in frequency tables. Descriptive and inferential statistics have been used to discuss the findings of the study.

#### 4.2 Descriptive Statistics

The results were run in SPSS and the descriptive statistics generated are as per table 4.1 below

**Table 4.1: Descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
EPS	70	79.5818	130.9334	0.02	578.7
Savings Services	70	27.9606	20.28101	7.82464	90.4377
Loans Services	70	32.3406	36.06482	4.54752	191.982
Financial Training	70	0.10769	0.188112	0.00707	1.32365

From the above, the study findings were that the mean of the Earnings per Share (EPS) was 79.58 with a standard deviation of 130.93, there was mean of 27.96 on savings services and a standard deviation of 20.28, the mean for the loan service was 32.34 with a standard deviation of 36.06 while financial training had a mean of 0.11 and a standard deviation of 0.19.

### 4.3 Inferential Statistics

The data collected was analysed and presented in tables 4.2 and 4.3 below

#### 4.3.1 Regression Coefficients

**Table 4.2: Regression Coefficients**

EPS	Coef.	Std. Err.	Z	P>z	[95% Interval]	Conf.
Savings Services	-1.06019	0.47245	-2.24	0.025	-1.9862	-0.1342
Loans Services	-0.52566	0.21517	-2.44	0.015	-0.9474	-0.1039
Financial Training	41.6202	41.7831	1	0.319	-40.273	123.513
Constant	121.744	35.8942	3.39	0.001	51.3923	192.095

The findings indicate that savings services (p=0.025) and loans services (p=0.015) were significant predictors of EPS whereas financial training was not statistically significant. Assuming a linear relationship between the independent and the dependent variable and guided by GLS estimation methods, the relationship between the independent and dependent variables as presented by the regression model was tested. The multiple regression equation was;

$$EPS_{it} = \beta_0 + \beta_1 S_{it} + \beta_2 L_{it} + \beta_3 F_{it} \dots \dots \dots (3)$$

From the data in the above table the established regression equation was;

$$EPS_{it} = 121.74 - 1.06S_{it} - 0.53 L_{it} + 41.62 F_{it} \dots \dots \dots (4)$$

As shown in the above regression equation, it is clear that holding saving services, loan services and financial training to a constant zero, performance of tier two banks would be at 121.74. A unit increase in saving services would lead to a decrease in performance of tier two banks by 1.06, while a unit increase in loan services would lead to a decrease in performance of tier two banks by 0.53.

The above findings show that savings and loans services have a negative effect on financial performance. This is likely due to the effect of possible loan defaults and thus the need to provide for non-performing loans. The finding is in agreement with the empirical

review (Kithinji, 2010; Kolapo *etal*, 2012) that found that banks faces risks of loans default and non- performing loans, and the ensuing reduction in profitability, and that these risks cuts across all banks though not equally. The finding also implies that there are additional costs involved in effectively managing loans services (Mwambia & Kithinji, 2018) and so the negative effect of loan services observed above is in agreement with the earlier studies. The findings also point to an inference of banks diversifying their income sources, similar to findings by Olweny and Shipho (2011) that since there has been a decline in interest margins, banks have been forced to explore alternative sources of revenues, leading to diversification into trading activities, other services and non-traditional financial operations (Olweny & Shipho, 2011).

Savings services has a negative effect on financial performance of Tier II banks. This implies that there is a dearth of savings in the Kenyan economy. The empirical review defined savings as excess of income over consumption, and it is likely that in the Kenyan economy the income and consumption are equally matched and thus there is little disposable income going into banks deposit.

A unit increase in savings services, will lead to a reduction in financial performance. These tends to indicate that additional savings come in with additional costs to the Tier II banks, in form of interest payable to depositors, and thus influence negatively their financial performance. It is also likely that during the regime of interest capping, deposits had become expensive since the interest rate was determined by the CBK using the CBR rate. Loans could also not be higher than four points above the CBR rate. Thus saving services have a negative influence on the financial performance of Tier II banks in Kenya.

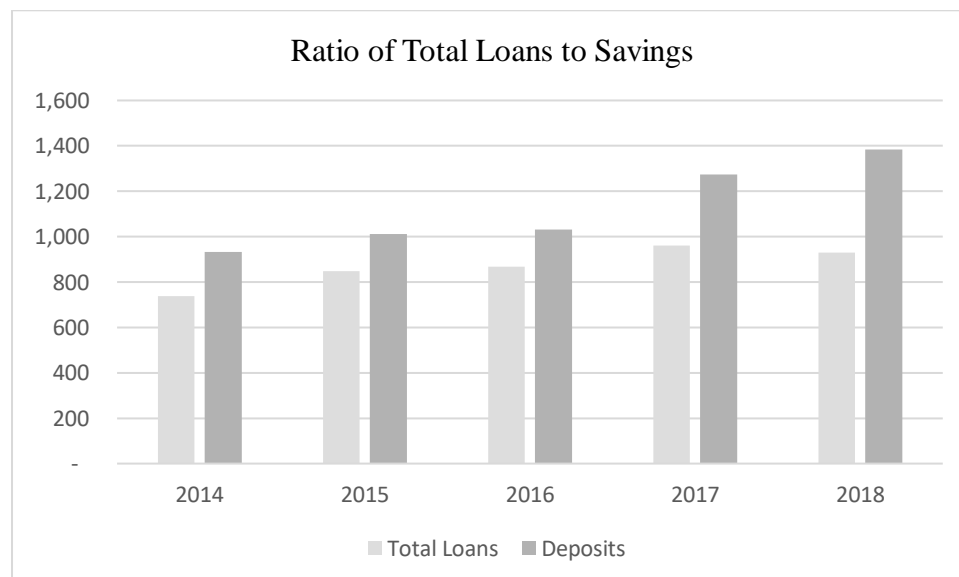
### 4.3.2 Model Summary

**Table 4.3: Model Summary**

Random-effects GLS regression	Number of obs = 70
Group variable: Bank	Number of groups = 14
R- sq	Obs per group
Within=0.1825	Min=5
Between=0.0090	Avg=5.0
Overall=0.0000	Max=5

From the findings, the value of adjusted R squared was 0.1825, an indication that there was variation of 0.1825 on influence of financial performance of tier two banks in Kenya due to changes in saving services, loan services and financial training at 95% confidence interval. This shows that about 18.3% of the changes of financial performance of tier two banks could be accounted for by changes in saving services, loan services and financial training. This shows that 81.7% of the change in influence of financial services on performance of tier two banks were accounted for by other factors other than saving services, loan services and financial training.

**Figure 4.1 Comparison of Loans Issued and Deposits Received**



Another observation is that the ratio of savings to total loans has been about one to one except for the amounts of loan issued in 2017 and 2018, which can be attributed to the rule on interest rate capping introduced in September 2016. This lends credence to the fact that loanable funds are commensurate with deposits, and that banks play the role of intermediation based on the loanable funds received, that is the amount of money received from savers is distributed to the borrowers and thus the theories underpinning this study have been confirmed to hold true.

The findings on financial training indicate that it has a significant effect on financial performance. It is in line with some of the empirical studies that have proven that financial training helps a firm to develop and enhance its capabilities, which in turn increases its profitability. The findings do agree with the numerous studies cited on the importance of financial training, that is there would be a major reduction in banks earnings, if the customers do not have financial literacy, and have low understanding of financial concepts. Again the empirical studies have shown that where borrowers are enlightened, there is an increase in savings and patronage of credit products, which conclusion agrees to the results obtained in this study.

#### **4.4 Diagnostic Tests**

With panel data, the fixed- and random-effects models are the most frequently used techniques. Secondly, in order to obtain consistent and efficient estimator, this thesis control for some diagnostic tests such as heteroscedasticity, and multicollinearity. These tests can cause bias in the standard errors and less efficiency in the results. The Hausman Test, also referred to as test for model misapplication was applied to choose between Fixed Effect (FE) Model and Random Effect (RE) Model. The test null hypothesis is that the preferred model is random effects; the alternate hypothesis is that the model is fixed effects. Essentially, the tests look to see if there is a correlation between the unique errors and the regressors in the model. The null

hypothesis is that there is no correlation between the two. The results of the Hausman test are given below in Table 4.4

**Table 4.4: Results of Hausman Test**

	Coefficients ----			
	(b)	(B)	(b-B)	sqrt(dig(V_b-V_B))
	fe	Re	Difference	S.E.
Loans/ Net income	-.544202	-.5256593	-.0185427	-
Savings/ net income	-1.222505	-1.060189	-.1623163	-
Training/ income	48.80568	41.62015	7.185531	-

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg  
 Test: Ho: difference in coefficients not systematic

$$\text{chi2}(3) = (b-B)'[(V_b-V_B)^{-1}](b-B)$$

$$= 5.00$$

$$\text{Prob}>\text{chi2} = 0.1717$$

The Hausman Test confirmed the null hypothesis and Random Effect was chosen. Four diagnostic tests were conducted, namely tests on normality, multicollinearity heteroscedasticity and autocorrelation.

#### 4.4.1 Shapiro-Wilk Test

**Table 4.5: Shapiro-Wilk Test**

Variable	Obs	W	V	z	Prob>z
Savings Services	70	0.76877	14.232	5.775	0.451
Loans Services	70	0.7022	18.33	6.325	0.365
Financial Training	70	0.47464	32.337	7.559	0.056
EPS	70	0.65428	21.28	6.649	0.051

In this study the test for normal distribution of data was done by use of Shapiro Wilk Test. The Shapiro–Wilk test is a test of normality in frequentist statistics. The findings show that performance of tier two banks had a p-value of 0, while saving services, loans services and financial training each had p-values of 0.451, 0.365 and 0.056. All the variables had a p value of > 0.05 apart from performance of tier two banks and hence we confirm that the data tested

were from a population that is normally distributed. A comparative assessment with Kolmogorov-Smirnov test also lead to the same conclusion on normality.

#### 4.4.2 Variance Inflation Factor (VIF) Test

In order to test the extent of correlation in the independent variables, a multicollinearity test was conducted. This was done through analysis of the variance inflation factor (VIF). The results of the VIF test are indicated in table 4.6 below:

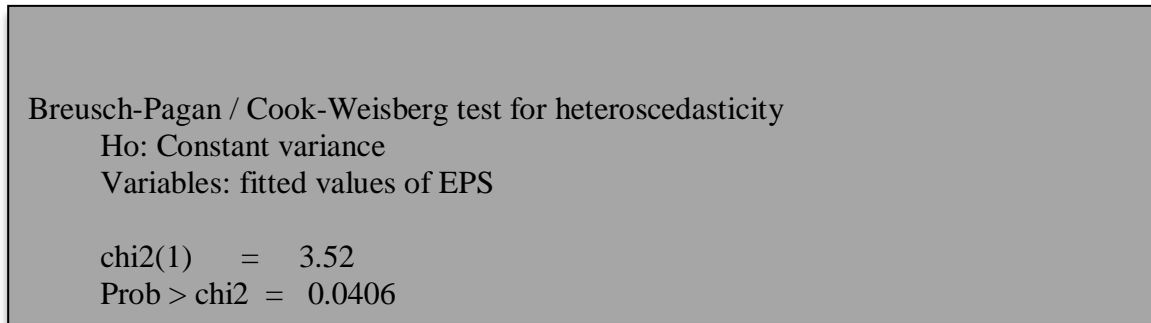
**Table 4.6: Variance Inflation Factor (VIF) Test**

Variable	VIF	1/VIF
Saving Services	1.61	0.619885
Loans Services	1.33	0.751176
Financial Training	1.80	0.555259
Mean VIF	1.58	

The test of multicollinearity was done using the VIF which quantifies how much the variance is inflated. The term collinearity implies that two variables are near perfect linear combinations of one another. Multicollinearity is a statistical situation where two or more explanatory / independent variables used in a multiple regression model have high levels of linear association. Where there is multicollinearity or high multicollinearity, this becomes a problem since it undermines the independent variables statistical significance and causes a large standard error. The findings indicate that the VIF values of all the variables are below 10 implying that the study data did not exhibit multicollinearity problem as recommended by Field (2009).

#### 4.4.3 Breusch-Pagan Test

Heteroscedasticity is the systematic change in the spread of the residuals over the range of the measured variables. This presents a problem basing on the fact that OLS regression assumes a constant variance in the residuals from a population.



**Figure 4.3 Breusch-Pagan / Cook-Weisberg Test**

Heteroscedasticity is a test diagnostic that refers to situations where the variables' variability is unequal across a range of variables for a second value that predicts that variable. The impact of violating the assumption of homoscedasticity is a matter of degree, increasing as heteroscedasticity increases. To detect any presence of heteroscedasticity, the study carried out a Breusch-Pagan / Cook-Weisberg test with a null hypothesis of constant variance (homoscedasticity). The test statistic results gave a value of 3.52 with a p value of 0.04 confirming that heteroscedasticity does not exist and thus accept the null hypothesis.

#### 4.4.4 Wooldridge test

As indicated in the earlier chapter, time-series data does often displays serial correlation of the disturbances across periods. Autocorrelation (also known as Serial Corelation) is the mathematical representation for the level of similarity between time series data for the lagged version of a given data over sequential time intervals. Serial Correlation exists when there is correlation in error terms of regression variables for successive periods. This brings about distortion of the efficiency of the regression estimators. The Wooldridge test for

autocorrelation in panel data is used to test for any presence of serial correlation with a null hypothesis stating that there is no first order autocorrelation in panel and it is rejected if the p value is less than 5 %. From the below results, it was evident that there was no first order serial correlation. The p value was greater than 0.05 implying that the null hypothesis of no first order correlation should be accepted at 5 % level.

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
F( 1, 13) = 0.086
Prob > F = 0.7743

**Figure 4.4 Wooldridge test for autocorrelation**

As indicated in the earlier chapter, time-series data does often displays serial correlation of the disturbances across periods. Autocorrelation is the mathematical representation for the level of similarity between time series data for the lagged version of a given data over sequential time intervals.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter gives the summary, conclusions, recommendations and suggestions for further studies drawn from the findings.

#### 5.2 Summary of Findings

The aim of this study was to assess the influence of financial services on performance of Tier two banks in Kenya. Time series data generated from financial results of the fourteen banks in Kenya that are classified as Tier II, was analyzed for a period covering five years from 2014 to 2018.

The major goals of the study were to assess, investigate and determine the influence of saving and loan services, and financial training on the financial performance of Tier II commercial banks in Kenya. Data was analyzed using descriptive statistics, correlation analysis and time series regression analysis using Stata.

##### *5.2.1 Savings Services and Financial Performance of Tier Two Commercial Banks in Kenya*

The evidence from this study shows there is a negative correlation between financial performance and saving services and that a unit increase in savings services leads to a decrease in financial performance of Tier II banks. It shows that additional savings come in with additional costs in form of interest payments made to savers of the Tier II banks, even though the banks benefit in form of added liquidity, and thus being in a position of being able to serve their borrowing customers' needs without interruption. Thus saving services have a negative influence on the financial performance of Tier II banks in Kenya.

### ***5.2.2 Loans Services and Financial Performance of Tier Two Commercial Banks in Kenya***

It has been noted that a unit increase in loan services would lead to a decrease in performance of Tier II banks, and so we can conclude that loan services affects financial performance of commercial banks negatively. This is contrary to expectation in that in usual circumstances, it is expected that loans services would have a positive impact since the main earnings of banks come from interest on loans. However, due to the analysis considering fourteen banks, it is possible that there may be a distortion in the data due to negative performance of some banks such as Bank of Africa in 2015 and 2016, National Bank in 2015, Ecobank in 2016 and 2017, Family Bank in 2017 and Housing Finance in 2018.

### ***5.2.3 Financial Training and Financial Performance of Tier Two Commercial Banks in Kenya***

The study has established that a unit increase in financial training services would lead to an increase in performance of Tier II banks, and so we can conclude that financial training services affects financial performance of commercial banks positively. This indicates that financial training does translate into efficient and knowledgeable staff dealing with equally knowledgeable and credit worthy bank customers.

## **5.3 Conclusions**

It has been shown that loan services has a negative effect on Tier two banks profitability. However due to the contradiction noted, the study concludes that banks should continue lending in order to maximise shareholders profits. Savings have also been shown to have a negative effect, though marginally. The Tier II banks should introduce incentives that would

encourage customers to save higher amounts for higher interest. It is worth noting that savings and loans go hand in hand and thus there would be less lending if there was a decrease in savings.

Financial training service is an important component when it comes to establishing proper use of loans and avoidance of moral hazards situation. The study has shown that it has a positive contribution to the banks income. The outcome of the training is expected to last for a longer time and a pre appraisal of a training programme can be conducted to find out if the learning outcomes will be achieved. The Kirkpatrick model is a method that can be used for such assessment. It is useful in assessing whether a proposed training program will meet the needs and requirements of both the trainees and the organisation implementing the training. The Kirkpatrick model also has a technique for a post appraisal that sets out to identify how well the trainees are putting their training into practice. It has been observed that informed/trained borrowers will be able to borrow, invest wisely and repay in time and also avoid moral hazards and thus the reduction in cases of Non-Performing Loans (NPLs). Less NPLs translate into a lower provision for bad debts and thus increased income. Borrowers are also likely to receive better services when staff are well trained and able to advise them on the right kind of product that suits the borrowers need.

#### **5.4 Recommendations**

The outcomes of financial training lasts for more than one financial year, and informed customers make good borrowers leading to reduced losses arising from bad debts. Thus the banks should enhance financial training to their customers and staff. Banks that have challenges such as the ones making losses could choose to charge a fee. Costs of financial training can also be minimised by the banks partnering with some Non-Governmental Organisations (NGO) which have Business Development Services (BDS) funding for training entrepreneurs, majorly in the smaller towns in Kenya.

The study also recommends the use of Kirkpatrick model to evaluate the effectiveness of financial training provided. The banks should do a follow up on trainees, to ensure that the envisaged learning outcomes have been achieved. This will go a long way into mitigating the costs of training since it is apparent that the effects of training span over a couple of banks financial years.

Saving services has a negative influence on financial performance. Thus the banks should device ways in which to encourage customers to save more e.g. increased interest rate for deposits held for long durations. The banks can utilize the customer service week to educate the customers on the benefits of long term service, and provide incentives for existing customers to introduce new customers to the bank, thereby improving on the amounts of deposits. Use of social media can improve savings and demystify loans. Banks could also design financial instruments that encourage customers to save more, such as education related products where customers can save with a long term mentality. Cost of deposits to banks is going to be lower after the repeal of the interest capping law, and so banks can afford to take in more deposits and this should be encouraged.

## **5.5 Recommendations for Future Studies**

The variables in this study, saving services, loan services and financial training, accounts for small fraction of the changes in financial performance of Tier II banks. In essence it shows that about four fifths of the change in financial performance of tier two banks is influenced by other factors. Further research should be extended to other variables if we are to find out what these factors are. A low  $R^2$  value indicates that there are other variables which may have a greater impact on performance and thus provide scope for future research. The variables that needs to be studied may include the ownership structure of the commercial banks, management policies,

capitalization, and government policies among others. Although the study used Generalised Least Squares, undertook statistical tests that showed that there was no heteroscedasticity and autocorrelation and that other assumptions of the model were met, the study was limited by the number of variables included in the regression equation and data availability (sample size) of good quality. To widen the scope of understanding of the influence of financial services on financial performance of tier two banks in Kenya, the study recommends that future studies should take into account time dimension, trends or seasonal variation in banks performance, use large sample sizes and other modelling techniques (e.g. mixed effects/multi-level models) to advance current databases and knowledge on the subject. Another area of future study would be the value of financial services on commercial bank's customers.

## **5.6 Limitation of the Study**

This study was limited to the financial performance of Tier II banks in Kenya, which comprises of fourteen of the forty three banks in Kenya, and for a five year period from 2014 to 2018. The results of the study thus cannot be used to generalize on the performance of all banks in Kenya. For the study, data relating to financial training was not easily available. The banks have aggregated training cost as one item in their financials and therefore it was not easy to separate what pertains to financial training of staff, customers and other forms of training. But given the nature of the banking business, it has been assumed that all the training costs are incurred for purpose of financial training.

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## APPENDICES

### Appendix I: Tier Two Banks in Kenya - Loans Issued (Ksh 'M')

<b>Banks</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Bank of Africa	25,397	37,799	31,542	27,388	21,188
Bank of Baroda	31,463	31,018	36,401	42,207	41,571
Bank of India	15,106	17,858	19,246	20,641	18,427
CFC Stanbic Bank	91,732	104,982	115,588	143,279	146,604
Citibank	27,961	26,629	27,437	37,187	26,436
Diamond Trust Bank	145,912	177,545	186,303	196,048	193,074
Ecobank	61,744	54,169	24,474	16,371	13,023
Family Bank	39,980	55,854	50,164	43,472	44,113
Guaranty Trust Bank	14,270	19,607	19,442	20,543	19,682
Housing Finance	43,584	53,021	54,470	49,640	43,440
I&M Bank	96,008	48,268	120,697	153,018	166,737
National Bank of Kenya	45,044	65,641	55,020	52,361	47,779
NIC Bank	68,950	114,658	87,170	119,761	110,976
Prime Bank	31,936	41,048	39,356	38,966	36,777

### Appendix II: Tier Two Banks in Kenya - Deposits with Banks (Ksh 'M')

<b>Banks</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Bank of Africa	24,007	47,488	34,464	31,572	30,122
Bank of Baroda	54,014	52,929	64,874	73,005	101,958
Bank of India	36,372	24,613	26,726	31,286	40,636
CFC Stanbic Bank	96,747	106,246	119,328	193,368	197,915
Citibank	71,658	62,022	62,486	64,369	54,789
Diamond Trust Bank	198,949	194,052	238,104	266,247	282,860
Ecobank	59,949	49,827	32,243	43,686	44,747
Family Bank	42,847	62,711	41,395	47,362	48,483
Guaranty Trust Bank	34,832	26,371	27,192	27,595	28,689
Housing Finance	32,194	41,665	38,707	36,744	34,721
I&M Bank	96,919	76,299	129,636	169,282	213,139
National Bank of Kenya	82,627	104,734	93,870	94,276	98,866
NIC Bank	61,726	112,365	72,689	138,917	136,072
Prime Bank	38,659	50,819	49,313	57,283	71,075

**Appendix III: Tier Two Banks in Kenya - Financial Training Costs (Ksh 'M')**

<b>Banks</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Bank of Africa	40	31	104	96	69
Bank of Baroda	193	210	223	187	158
Bank of India	133	145	161	148	115
CFC Stanbic Bank	335	474	528	486	211
Citibank	165	179	200	184	143
Diamond Trust Bank	82	90	78	71	122
Ecobank	60	65	73	67	52
Family Bank	113	123	137	126	16
Guaranty Trust Bank	127	138	42	48	110
Housing Finance	59	65	72	66	52
I&M Bank	191	318	365	354	267
National Bank of Kenya	87	95	106	97	76
NIC Bank	255	387	320	294	222
Prime Bank	79	163	70	64	69

**Appendix IV: EPS of Tier Two Banks in Kenya (in Ksh)**

<b>Bank / Year</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Bank of Africa	27.31	(174.50)	(12.14)	7.76	(27.32)
Bank of Baroda	44.80	40.94	59.55	79.28	79.41
Bank of India	2.30	2.46	2.39	2.09	1.94
CFC Stanbic Bank	32.12	27.54	25.94	25.44	36.21
Citibank	0.52	0.73	0.75	0.87	0.73
Diamond Trust Bank	21.92	24.42	26.94	23.73	23.91
Ecobank	(26.26)	(21.91)	(20.78)	(71.24)	16.24
Family Bank	1.61	1.59	0.28	(0.80)	0.20
Guaranty Trust Bank	413.45	341.89	360.93	160.60	208.53
Housing Finance	4.21	3.43	2.59	0.36	(1.56)
I&M Bank	178.35	201.76	220.21	212.71	184.92
National Bank of Kenya	3.11	(3.75)	0.23	1.26	0.02
NIC Bank	7.07	7.00	6.77	6.48	6.06
Prime Bank	578.70	404.60	380.90	368.40	304.00

**Appendix V: Loans / Net Income**

<b>Banks</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Bank of Africa	31.52	(26.36)	(1,911.98)	778.41	101.11
Bank of Baroda	9.14	12.48	9.39	8.35	8.06
Bank of India	7.83	12.15	8.81	7.72	7.53
CFC Stanbic Bank	17.11	14.26	19.11	26.53	16.66
Citibank	5.33	4.77	4.55	5.84	4.68
Diamond Trust Bank	15.53	18.56	16.95	19.41	19.12
Ecobank	9.28	8.51	(8.47)	(11.42)	95.57
Family Bank	70.61	18.89	75.47	(32.02)	101.43
Guaranty Trust Bank	26.27	44.58	31.10	64.02	62.04
Housing Finance	44.34	30.24	39.89	159.29	(66.66)
I&M Bank	13.06	6.74	13.37	16.38	15.29
National Bank of Kenya	18.98	(40.07)	688.69	66.69	104.70
NIC Bank	14.18	17.92	22.36	21.38	18.55
Prime Bank	12.03	15.83	16.85	17.20	15.20

**Appendix VI: Deposits / Net Income**

<b>Banks</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Bank of Africa	29.79	(33.11)	(2,089.09)	897.33	143.74
Bank of Baroda	15.69	21.29	16.74	14.45	19.76
Bank of India	18.86	16.75	12.23	11.69	16.60
CFC Stanbic Bank	18.04	14.44	19.73	35.80	22.50
Citibank	13.65	11.12	10.36	10.10	9.71
Diamond Trust Bank	21.17	20.28	21.67	26.37	28.01
Ecobank	9.01	7.82	(11.16)	(30.46)	328.38
Family Bank	75.67	21.21	62.28	(34.89)	111.47
Guaranty Trust Bank	64.13	59.96	43.50	86.00	90.44
Housing Finance	32.76	23.76	28.34	117.91	(53.28)
I&M Bank	13.18	10.66	14.36	18.13	19.55
National Bank of Kenya	34.82	(63.94)	1,174.98	120.08	216.64
NIC Bank	12.70	17.56	18.65	24.80	22.75
Prime Bank	14.56	19.60	21.11	25.29	29.38

**Appendix VII: Training costs / Net Income**

<b>Banks</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Bank of Africa	0.05	(0.02)	(6.33)	2.73	0.33
Bank of Baroda	0.06	0.08	0.06	0.04	0.03
Bank of India	0.07	0.10	0.07	0.06	0.05
CFC Stanbic Bank	0.06	0.06	0.09	0.09	0.02
Citibank	0.03	0.03	0.03	0.03	0.03
Diamond Trust Bank	0.01	0.01	0.01	0.01	0.01
Ecobank	0.01	0.01	(0.03)	(0.05)	0.38
Family Bank	0.20	0.04	0.21	(0.09)	0.04
Guaranty Trust Bank	0.23	0.31	0.07	0.15	0.35
Housing Finance	0.06	0.04	0.05	0.21	(0.08)
I&M Bank	0.03	0.04	0.04	0.04	0.02
National Bank of Kenya	0.04	(0.06)	1.32	0.12	0.17
NIC Bank	0.05	0.06	0.08	0.05	0.04
Prime Bank	0.03	0.06	0.03	0.03	0.03