THE EFFECT OF USING CUSTOMER FUNDING ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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STUDENTS DECLARATION

I declare that this research project is my original work and has not been submitted to any other university or institution of higher learning for examination purpose.

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DEDICATION

I dedicate this work to my father Mr Maurice Wanyama, to my late mother Gladys Nyongesa and to my siblings Diana, Edwin, Dorine, Kevin and Zippy for the support accorded to me during the course of the study.

ABSTRACT

The study was on the effect customer funding on the financial performance of commercial banks in Kenya. The main issue was that there had been a gradual rise in customer deposits in Kenya. The profitability of the banking sector has also been on the rise over the recent past . The empirical problem therefore is whether there exists a relationship between the customer funding and banks profitability. The problem of the study and the research gap is based on the observation that there exists conflicting evidence of the effect customer funding on bank's financial performance. There is evidence that shows a negative effect, while others show a positive effect while others show no effect at all.

The study adopted a causal research design. The population of the study were all 44 commercial banks registered by the Central bank of Kenya as at 31 Dec 2016 . The study used secondary data (over a period of 10 years from 2009 to 2016) from the banking supervision department of Central bank. A cross sectional regression model was adapted. The regressions were conducted using statistical package for social sciences (SPSS) version 21.

The Regression analysis findings revealed that customer funding has a negative significant effect on financial performance of commercial banks therefore the study recommends that since customer funding has a negative significant effect on financial performance of commercial banks there is a need for commercial banks to balance between the customer deposits they keep and the loans they give out. This is because more customer deposits than total loans become a liability in terms of interest paid to the deposit holders.

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ABBREVIATIONS AND ACRONYMS

CBK Central Bank of Kenya

CAPM Capital Asset pricing model

GDP Gross Domestic Product

LTD Loan to deposit

KNBS Kenya National Bureau Of standards

OLS Ordinary least Squares

ROA Return on Assets

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Commercial banks serve a very important role in the economy of a country and on allocation of resources in the country. According to Al-tally (2014) banks continuously channel funds and resources from depositors (surplus fund units) to investors (deficit fund units) and they can only do so, if they are able to generate income to cover for their operational costs. Okun (2012) adds that for sustainable intermediation function, banks need to be profitable. In the Global economy the banking industry serves as the most essential financial intermediary by conducting its primary functions (Alper & Anbar, 2011). When Banks make losses and there is poor performance this can lead to banking failure and crisis which have negative impacts on the economic growth of the country.

Financial institutions may rely on a variety of funding sources, and a wide array of factors may impact the stability of those funding sources. Some Recent evidence suggests that when funding from financial markets became unavailable, or prohibitively expensive, banks opt to be heavily funded via customers' deposits (Beltratti & Stultz, 2011; Demirguc-Kunt, 2010). Deposits tend to be more stable and since they are typically insured by the government, their withdrawals in most circumstances are usually predictable at the aggregate level and mostly linked to depositors' liquidity needs (Song & Thakor, 2007; Huang & Ratnovski, 2011). A bank can also fund its operations through borrowings from various counterparties. Borrowed funds include secured and

unsecured debt obligations across the maturity spectrum. Longer-term borrowed funds include various types of collateralized loans and the issuance of debt.

Since commercial banks depend on depositor's money as a source of funds, it means that there are some relationships between the ability of the banks to mobilize deposits, the amount of credit granted to the customers and the financial performance of the bank (Tanzi, 2013). This argument is borrowed from theories that underpin financial performance by commercial banks. The balance portfolio theory posited by Markowitz (1952) explains that the optimum holding of each asset in an investor's portfolio is a function of policy decisions determined by a number of factors such as the vector of rates of return on all assets held in the portfolio, a vector of risks associated with the ownership of each financial assets and the size of the portfolio. The capital pricing model (CAPM) on the other hand suggests that investors require high levels of expected returns to compensate them for choosing a model with a high expected risk. This directly affects the financial performance of the associated firms (Black, 1971).

1.1.1 Customer Funding

Customer funding refers to the use of customer loans and saving to fund the bank. Customer deposits are the main funding source for banks that have traditional deposit-taking and loan-making business models (Anna, 2009). Accordingly, deposits payable at par and on demand carry the most liquidity risk because of their maturity mismatch with longer-term loans, and they could be subject to runs. However, in practice, retail deposits are relatively stable, particularly if covered by a credible deposit guarantee scheme (Devinaga & Tan, 2010). Other types of deposits can be less stable, including uninsured deposits, foreign currency deposits, deposits collected though Internet banking, and those

collected from nonresidents, corporations, money market funds, and high-net-worth individuals (Demirguc-Kunt , 2010).

The loan-deposit ratio is a commonly used measure of bank's liquidity as well as profitability of the bank (Husni, 2011). The ratio is calculated by dividing the total amount of loans, by total amount of deposits (Taillard, 2014). This number, also known as the LTD ratio, is expressed as a percentage. If the ratio is too high, this is an indicator that: the bank is issuing out more of its deposits in the form of interest bearing loans and might not have enough liquidity to cover any unforeseen fund requirements or that the bank is generating more income if the ratio is too low, banks may not be earning as much as they could be. That means the bank is at low risk; at the same time it is not using assets to generate income for its cash flows (Demirguc-Kunt, 2010).

The amount of liquid assets that a bank should maintain is a function of the stability of its funding structure and the risk characteristics of the bank's balance sheet and off balance sheet activities (Karim, 2012). Generally, a relatively lower level of unencumbered liquid assets may be sufficient if funding sources are stable, established borrowing facilities are largely unused, and other risk characteristics are predictable. According to Husni (2011) a higher level of unencumbered liquid assets may be required if for example bank customers have numerous alternative investment options, or, recent trends show a substantial reduction in large liability accounts. Demirguc-Kunt (2010) suggests that when funding from financial markets became unavailable, or prohibitively expensive, the market valued more positively those institutions more heavily funded via customers' deposits.

1.1.2 Financial Performance of Commercial Banks

Financial performance refers to the act of performing financial activity. In the contextual sense, financial performance refers to the degree to which financial objectives of the bank has been accomplished. It is the process of measuring the results of a bank's policies and operations in monetary terms over a given period of time and can also be used to compare similar banks. Performance of commercial banks can be affected by internal and external factors (Al-Tamimi, 2010). External factors such as the 2008 global financial crisis may be beyond the bank. In country specific context, macroeconomic policy stability, Gross Domestic Product (GDP), inflation, interest Rate and political instability are also other macroeconomic variables that affect the performances of banks (Azam & Siddiqoui, 2012). According to Farazi (2011) GDP is a major determinant and the trend of GDP affects the demand for banks asset. Further, during the declining GDP growth the demand for credit falls which in turn negatively affect the profitability of banks. On the contrary, in a growing economy as expressed by positive GDP growth, the demand for credit is high due to the nature of business cycle. During boom the demand for credit is high compared to recession.

Internal factors on the other hand are individual bank characteristics which affect its performance (Beltratti & Stultz, 2011). These factors are basically influenced by the internal decisions of management and the board. Turgutlu (2014), argues that there are various drivers of profitability in the banking industry for commercial banks which include but are not limited to: Cost of funds (Customer Funding), fast changing consumer preferences, intensifying competition and profitability pressures, efficiency, risk-taking , regulatory requirements by various regulatory bodies in the country whose guidelines the

banks operate within. Ongore & Kusa (2013) additionally relates banks financial performance to factors such as capital adequacy, asset quality, management efficiency and liquidity management.

1.1.3 Customer Funding and Commercial Banks Performance

In a Research Paper for Kenya Institute for Public Policy Research and Analysis, Nafula (2003) conducted an econometric analysis on the bank earnings and bank portfolio in Kenya. The results suggested that except for customer deposits and investments in secondary companies, all the other factors (certificate of deposit; Government securities; (loans and advances; Deposit balances from other banks; Placements, loans and advances to building; societies ,term loans, credit card receivables, bills receivables, trust receipts, claims on customers under acceptance credits, loans/ financing to financial institutions, resolving credits and staff loans affect bank earnings positively.

Deposits include both deposits from customers and deposits and placements from banks and other financial institutions (Dietrich & Wanzeried, 2009). These deposits are also among the cheapest source of funds available to commercial banks. It is therefore true that, the performance of a commercial bank is related to the bank's ability to attract individual deposits both from its customers and non-customers. As these deposits have a link with profitability of the bank, Devinaga Rasiah (2010). The bank therefore has to formulate ways to attract more deposits. When banks Accept deposits this is a liability for the bank, further to this the bank is liable to pay interest to the deposit holders. A study conducted by Husni (2011) stated that there is a significant and positive relation between return on assets and total liabilities to total assets

The other source of income for the banks is interest from loans and advances. The primary function of the bank is to lend money to the borrowers through mobilize the interest revenue; this is the ultimate source of revenue for the commercial banks (Ratnovski & Huang, 2009). Normally all the banks try to increase the amount of loans to the borrowers for aggregate interest revenue in the financial statement. It is understandable that the more banks offer more loans the more it goes to generate high revenue and profit, (Abreu and Mendes 2002). Brunnermeier and Pedersen (2009) show that under certain conditions market and funding liquidity may be mutually reinforcing, leading to liquidity spirals, and most notably when there are systemic risk concerns. For example, if a bank is not able to rollover some of its debt, it may be forced to sell some of its assets to obtain liquidity. However, the fire sale of assets will depress asset prices and shrink banks' assets given that they are marked-to-market, thus making access to funding even more Constrained (Nikolau, 2009).

1.1.4 Commercial banks in Kenya

The banking system in Kenya consists of two levels. The first is the Central Bank of Kenya (CBK), whose principal objectives are as established in the CBK Act in the constitution of Kenya. The primary function of the CBK is to formulate and implement monetary directed to achieving and maintain a general level of price stability, promote stable and sound financial system and ensure an effective and efficient payment system. To foster the liquidity, solvency and proper functioning of a stable, market- based, financial system; and finally, to support the economic policy of the Government, Including its objectives for growth and employment Ongore and Kusa (2013). The second level consists of the commercial banks. Data from the Central Bank of Kenya

website indicate that as at 31 December 2013, the Kenyan banking sector comprised 44 banking institutions.

The Banking industry has experienced considerable growth in the past few years. Data from CBK indicate that the banking sector was robust and stable and registered enhanced performance in 2013 as demonstrated by a growth of 15.9 per cent in the total net assets of the banking industry and an increase in Customer deposits of 13.5 per cent in that year. This growth has been attributed to changes in the banking legislation and internal factors specific to each bank. A report by KNBS (2016) indicated that at the end of 2015, the sector recorded a growth of 8.7 per cent compared to 8.3 percent in 2014. The report also indicated that in terms of loans and advances, commercial banks interest rates rose from 15.99 per cent in December 2014 to 17.45 per cent in December 2015. At the end of 2016, following the passing of the Banking Amendment Act No. 25 of 2016 that capped interest rates on borrowing at 4 percentage points above the central bank's benchmark rate, which is 10.5 per cent, while deposit rates must be at least 70 per cent of the benchmark rate, a report by Cytonn (2017) indicated that listed banks recorded a 4.4% core EPS growth, compared to a growth of 2.8% in FY'2015.

Performance of the banking sector has also been marked by closure of some branches to bring down operational costs which is indirectly linked to banks' overall performance (Michira, 2014). The efficient and effective performance of the banking industry over time is an indicator of financial stability and banks play an important role in the mobilization and allocation of resources in an economy. The sound financial position of a bank is the guarantee not only to its depositors but equally important for the whole

economy of the nation. Financial performance of commercial banks can be measured using, customer funding, capital adequacy and asset quality.

1.2 Research Problem

Banks play an important role in an economy. These roles include to mobilize funds through savings, current , fixed deposit accounts and other financial instruments, lending loans and advances to business entities and private individuals in the name of working capital, investment and consumption, trade finance to domestic and international trade, treasury services to customers, foreign exchange transactions, cross border fund transfer service, provide customary service, involving wealth management activities, hire purchase and leasing activities (Jordan, 2011; Kupiec & Lee, 2012). The sound financial position of banks is not only an indicator to its depositors but equally important for the whole economy as an indicator for the sound economic position of the nation.

Tuyishime, *et al*., (2014) argued that banks that rely largely on deposits for their funding activities are less profitable, as deposits require more branching and other expenses. Kazi (2012) also provided evidence that the best performing banks are those who maintained a high level of deposit accounts. A review of selected global studies, for instance, Lawal (2014); Mohan (2012) reveals that globally, there seem to be a difference in opinions on the relationship between commercial bank deposits and performance.

Locally, Okun (2012) conducted a correlation analysis on the deposit portfolio as a determinant of commercial bank profitability and found a positive correlation between deposit portfolio and bank profitability. Wambari (2017) suggests that customer deposits have a significant and negative effect on earnings of banks since it is contains an

opportunity cost. This implies that level local studies display a difference in opinion. In addition, local studies are still insufficient because of their failure to single out deposits in their studies of performance of commercial banks. For instance, Ngumi (2014) reviewed the relationship between innovations and financial performance of banks in Kenya but failed to address the role of deposits in bank performance. Njogu (2014) conducted a study on the relationship between electronic banking and profitability of banks but failed to relate the level of deposits to the performance of commercial banks. This implies that local studies are yet to adequately cover the subject of determinants of commercial bank performance. The question therefore remains; is there a causal relationship between customer funding and financial performance of commercial banks in Kenya?

1.3 Research Objective

The objective of this study was to assess the effect of using the customer funding on financial performance of commercial banks in Kenya.

1.4 Value of the Study

In practice this study is expected to be of value as it provides useful information to policy makers and regulators to design targeted policies and programs that will actively stimulate the growth and sustainability of banks in the country in order to promote efficient utilization of resources, for sustainable competitiveness in the banking sector.

Regulatory bodies such as the Central Bank of Kenya can use the study findings to determine the accepted level of the Customer funding that is good for commercial banks in Kenya.

Findings from this study can also benefit management and staff of banks who can gain insight into the importance of the Customer Funding on the Performance of banks.it can also provide them with information on whether or not the current funding structure of commercial banks is viable or banks may need to select other funding strategies to be able to operate profitably.

In theory, this study can be of value to other academic researchers in this field as they will also be able to utilize the results of this study as part of secondary data in enhancing future studies. The study is expected to facilitate individual Researchers to identify gaps in the current research and carry out further research in those areas as well as add to the body of knowledge on effect of customer deposits and financial performance of commercial banks in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews some of the theories that were relevant to the study. It starts by a reviewing the relevant theories that underpin the study. These are: theory of financial intermediation, the balanced portfolio theory and Tobin's theory on investment. Focus is then given to the empirical literature on the topic of customer funding and the banks performance. Finally the chapter puts forth a summary of the literature review.

2.2 Theoretical Review

This section presents a theoretical review of the study. The theories reviewed here are the balance portfolio theory and the Capital Asset Pricing Model.

2.2.1 Balanced Portfolio Theory

The portfolio theory plays an important role in bank performance studies (Nzongang and Atemnkeng, 2006). According to the Portfolio balance model of asset diversification, the optimum holding of each asset in an investor's portfolio is a function of policy decisions determined by a number of factors such as the vector of rates of return on all assets held in the portfolio, a vector of risks associated with the ownership of each financial assets and the size of the portfolio (Markowitz, 1952). As expected in the current study, a banks portfolio consists of both assets and liabilities. It is the bank manager's jobs to construct a portfolio that leads to high return at the same time reduce the risk (standard deviation) of such a portfolio. According to Kierkegaard, *et al.*, (2006) the ability to obtain maximum

profits depends on the feasible set of assets and liabilities determined by the management and the unit costs incurred by the bank for producing each component of assets. These profits ultimately define the nature of financial performance.

The portfolio theory approaches financial performance from an investment angle with the aim of maximizing earnings from an entire portfolio (Nzongang & Atemnkeng, 2006). The modern portfolio theory introduces the 'mean-variance' analysis to simplify the portfolio selection problem. Markowitz (1959) attempted to quantify risk and quantitatively demonstrate why and how portfolio diversification works to reduce risk for investors. The standard deviation is the measure used to quantify risk of return from period to period, and the portfolio selection problem is reduced to computing an 'efficient' that minimizes the risk for a fixed level of return in a single period.

According to the portfolio theory, the larger the expected return the better the investment, and the smaller the standard deviation of the return the more attractive the investment.

Furthermore, the theory shows that we can reduce the standard deviation of the return or risk by combining anti-covariant securities. However, each asset class generally has different levels of return and risk and also behaves uniquely so that one asset may be increasing in value as another is decreasing or at least not increasing as much, and vice versa. The balanced portfolio's argument is that the bank has to choose to be risk averse in giving out loans with the hope that borrowers will repay as expected. This is their type of investment. This theory, however, has a shortcoming; it cannot allow both more and less risk averse investors to find their optimal portfolio, a problem surmounted by the capital asset pricing model (CAPM) (Sharpe, 1964).

2.2.2 Capital Asset Pricing Model

CAPM, associated with Sharpe (1964), Lintner (1965) and Black (1972) explains the risk of a particular asset or portfolio using the excess return on the market portfolio (Black, 1971). It describes the relationship between systematic risk and expected return for assets. CAPM model suggests that investors should hold diversified portfolios, and predicts that investors will hold some fraction of the market portfolio. Furthermore, an important proposition of the CAPM, also referred to as efficient markets hypothesis, is that investors lacking special investment knowledge would be well advised to buy and hold diversified portfolios (Black, 1971).

CAPM suggests that banks require high levels of expected returns to compensate them for choosing a model with a high expected risk in their lending. However, according to Nguyen (2015) in the presence of informational asymmetries and contract enforcement problems, it is not necessarily true that the banking system will allocate resources to projects/ firms with the highest returns. Empirical evidence based on mean-variance portfolio selection, simulation analysis, and out of sample portfolio performance suggests that correcting for estimation error, particularly in the means, can substantially improve investment performance as suggested by (Jobson 1979; Jobson and Korkie (1980, 1981); Jorion, 1985, 1991).

Despite attempts to verify or counter the CAPM, there is no general agreement on its legitimacy. The modelling approach engaged in this study is therefore that of the portfolio theory alongside that of CAPM. This paper therefore assumes that deposits are one of the items in a bank's portfolio. A banks portfolio consists of both assets and

liabilities. It is the bank manager's job to select a portfolio that will increase returns and minimize risk for the firm.

2.3 Determinants of Financial Performance

The determinants of financial performance can be classified into three major categories. These are the bank specific factors, industry specific factors and the macro-economic indicators (Elyor, 2009). Bank-specific factors are those factors within the direct control of managers, while external factors include industry-specific and macroeconomic factors. This is further discussed below.

2.3.1 Industry Specific Determinants of Performance

Industry specific factors such as the market structure and bank specific variables to explain the differences in the financial performance of commercial banks across the various countries. Studies have shown that generally, a high bank asset-to-GDP ratio shows that financial development plays a very critical role in the economy in the economy of a country. This is an indication of a higher demand for banking services,

2.3.1.1 Market structure

Studies by Hurka (2017) show that commercial banks in countries that have more competitive banking sectors, where the bank assets make up a large part of the GDP of the country, generally tend to have smaller profit margins and are therefore less profitable. It also shows that countries that have underdeveloped or poorly developed financial systems tend to exhibit lower efficiency in their operations and also tend to adopt less-than-competitive pricing behaviors which lead to poor financial performance (Elyor, 2009). It is clear that for such countries, an improvement in financial development

would lead to an improvement in the efficiency levels of the banking sector which is a clear indication that the market structure of the banking industry has a significant influence on the financial performance of the commercial banks in the industry (Khrawish, 2011).

The structure of the bank is also a determinant of financial performance. Commercial banks that are able to offer investment products are also able to make more money since they earn more from the fees and commissions from the investments (Mwania, 2009).

2.3.1.2 Maturity of the banking sector

Another industry specific determinant of the financial performance of commercial banks is the maturity of the banking system. Delis et al (2008) concluded that there was a negative relationship between the financial performance of the commercial banks and the size of the banking industry in the country. Bodie, *et al*., (2005) adds that this leads to a situation where the maximum performance of each commercial bank is reduced and thus clearly showing that a greater banking sector may lead to poor financial performance of the commercial banks.

Maturity of the banking industry also influences the number of services that commercial banks are able to offer to their consumers as well as the coverage of the market. The more mature the banking industry is, the more it is expected to be large and to accommodate large volumes of transactions thus better performance (Wen, 2010). A mature banking industry is characterized by various products to satisfy the needs of most customers and therefore it is able to attract more customers. When more citizens rely on the banking industry to conduct their businesses as well as make payments and transfer money,

commercial banks tend to earn more from the banking charges and fees and therefore they are able to increase their revenues (Dang, 2015). The ability of a commercial bank to increase its revenues while at the same time lowering its costs of operations result in improved financial performance and profitability (Dietrich and Wanzenried, 2008).

2.3.1.3 Competition

Research in marketing has shown competitive forces in the Industry influence the performance of players in every industry (Khrawish, 2011). Porter (1980) refers to these forces as the drivers of competition and profitability in every industry, which as well include banking industries around the world. He further stressed that it is difficult for firms which operates in highly competitive industries to earn favorable returns on investment (Amare, 2012). As a result, it is very clear that the financial performance and profitability of commercial banks is influenced by certain competitive forces in the industry. Increased competition in the banking industry leads to lower levels of financial performance and profitability due to the increased number of players and the lower market share (Podder, 2012) however Over the years banks have experienced stiff competition from foreign banks and other institutions this has emerged due to disintermediation and deregulation. Competition increases efficiency of firms according to Tirole (1998). Other literature suggests that efficient banks have better screening and monitoring procedures in place, and are therefore less likely to suffer from non-performing loans (e.g., Petersen and Rajan, 1995; Berger and DeYoung, 1997; Williams, 2004). Based on these arguments, a conclusion can be drawn that efficiency could be the medium through which competition makes banks more financially sound.

2.3.2 Bank Specific Determinants of Performance

Firm specific factors that influence the financial performance of commercial banks have been studied by various researchers in different settings. This is attributed to the fact that internal factors such as management efficiency are some of the major determinants of the performance of an organization.

2.3.2.1 Management efficiency

Firms that perform well are normally characterized by good management of internal factors and these are the factors that can be manipulated by the management of the firm for better and improved performance (Amare, 2012). Such factors are noted to include but are not limited to, cost of operations, ownership status, size of bank, credit risk and productivity.

The operating costs of a bank are normally expressed as a percentage of the profits and they are normally expected to influence the financial performance of the bank in a negative manner (Swarnapali, 2014). Memmel and Raupach (2010

Efficiency in cost management is normally measured as a ratio (operating costs to assets). This is due to the fact that only operating expenses can be directly associated to the outcome of bank management (Athanasoglou, Brissimis and Delis, 2008). This has resulted in a negative relationship due to the fact that improved management of bank expenses lead to improved efficiency and thus improved profitability ratios. Commercial banks that are interested in achieving high financial performance or profitability need to develop ways of ensuring that their costs of operations are maintained at an acceptable

level (Oloo, 2011). Firms that are able to minimize their costs of operations are considered to be more efficient and it is also expected that they post higher profits margins than their counterparts that have higher costs of operations (Athanasoglou, et al., 2008).

2.3.2.2 Ownership structure

Some studies show that there is no significant negative effect of either government or private ownership on the financial performance of commercial banks (Bonin, Hasan and Wachtel, 2005). While some studies show that privately owned commercial banks post better financial results than government owned banks due to the improved efficiency associated with the private sector (Dietrich and Wanzenried, 2008).

2.3.2.3 Bank size

The size of the bank which is normally measured in terms of assets (Goddard,2014). Bonin, Hasan and Wachtel, (2004) showed that there is a significant and positive relationship between the bank's size and its financial performance. This is associated with the fact that the bigger the size of the bank the lower the cost of raising capital for that bank and thus the higher the profitability ratios Podder (2012).Bank size is a significant performance indicator which is adopted to capture the economies of scale effect. A larger bank is able to achieve cost advantage from economies of scale and in turn generates greater profitability (Ameur and Mhiri 2013) In most of banking literature, bank size is often measured by natural logarithm of total assets (Javaid, Anwar, Zaman & Gafoor, 2014). Bank size is proved that statistically significant and positively associated with the profitability level of commercial banks in Ethiopia (Rao & Lakew, 2012).

Conversely, Javaid, (2011) suggested that bank size has a negative impact and significant in explaining the bank profitability in Pakistan.

2.3.2.4 Technological factors

Investments in technological innovations as well as engaging in joint ventures with technological companies such as companies providing mobile money transfer services is one way of improving the performance of the commercial bank (Al-Tamimi & Hassan, 2013) . In Kenya for example, one of the largest commercial banks in terms of assets (KCB Bank) has entered into various partnerships with Safaricom and other mobile networks to develop a mobile money transfer platform which has enabled to increase its revenues in a significant manner and thus its profitability (Ongore and Kusa, 2013). The fact that larger banks are able to enter into more strategic partnerships and engage in more investments clearly indicates that there is potential for improvement of financial performance or profitability in the long term (Amare, 2012).

2.3.2.5 Bank credit risk

A bank facilitates the movement of funds from savers to borrowers by buying financial claims with one set of characteristics from borrowers (for example, loans) and then selling its own liabilities with a different set of characteristics to savers (for example, deposits) A risk can be defined as an unplanned event with financial consequences resulting in loss or reduced earnings (Vasavada, Kumar, Rao &Pai, 2015). An activity which may give profits or result in loss may be called a risky undertaking due to uncertainty or unpredictability of the activity of trade in future. In other words, it can be defined as the uncertainty of the outcome. If a bank is managed to maximize shareholder

wealth, it will choose a level of risk consistent with that objective and which does not expose the bank to high level of uncertainty of the outcome and potential financial distress (Afonso, Kovner&Schoar, 2014)

Existing theory on the bank exposure suggests that increased risk is associated with a decrease in bank profitability. Banks like any other commercial organization also intend to take risk, which is inherent in any business. Higher the risk taken, higher the gain would be. But higher risks may also result into higher losses. However, banks are prudent enough to identify measure and price risk, and maintain appropriate capital to take care of any eventuality. The major risks in banking business or 'banking risks', as commonly referred, are Liquidity Risk, Interest Rate Risk, Market Risk, Credit or Default Risk, Operational Risk and Reputational risk. (Borio & Drehmann , 2009).

2.3.3 Macro Economic Determinants of Performance

Macro-economic factors influence the performance of the business entities in an economy in a significant manner since they determine the kind of operating environment available (Lipungam, 2014). Commercial banks do not operate in a vacuum and this therefore means they are influenced by the conditions of the external environment. An economy with favorable macro- economic conditions will give room for business to thrive and this also means that commercial banks will benefit from the increased business activities and thus improved profitability (Bodie, et al., 2005). Macro-economic factors that determine financial performance include Gross Domestic Product (GDP), interest rates and inflation rates.

2.3.3.1 GDP

According to Katrodia (2012) GDP is used to measure the total economic activity within a particular country. This growth in GDP has been linked with increased economic activity in a country. Khrawish (2011) also notes that increased economic activity means there are more people with improved standards of living and who can be able to engage in banking activities. This will mean more business for the commercial banks as they are the intermediaries in of money exchange in such economies and this will lead to improved financial performance and profitability (Bikker & Hu, 2012).

2.3.3.2 Interest rates

It is also believed that an increase in interest rates should lead to an increase in the financial performance of commercial banks since this leads to an increase in the spread between the interest rates for savings and the interest rates for borrowing (Makkar & Singh, 2013). When the interest rates are too low, the interest earned from the loaned out amounts is negligible and thus contributes little to the profitability of the commercial bank. There is therefore need for a balance in the interest rates in order to ensure the banks benefit (Lipunga, 2014).

2.3.3.3 Inflation

The inflation rate in a country is also another macro-economic factor that has been associated with the performance of commercial banks and a number of researchers have focused on establishing this relationship (Azam, 2012). It is noted that generally, high inflation rates lead to high interest rates on loans and thus lead to higher income to commercial banks.

Inflation reflects the continuous increase in general price of goods and service in the economy. When there is anticipated inflation, bank would adjust the lending and saving strategies accordingly in order to generate greater profit. (Pasiouras & Kosmidou, 2007) Thus, a positive relationship is estimated between anticipated inflation and bank profitability (Vong & Chan, 2009; Sufian, 2009; Wasiuzzaman & Tarmizi, 2010; Syafri, 2012).However, if there is unanticipated inflation, banks are not well-prepared to overcome this, thereby causing costs incurred increase more than revenues earned do (Pasiouras & Kosmidou, 2007). therefore, unanticipated inflation and bank profitability are expected to be in negative relationship as unexpected inflation reduces the bank profit.

2.4 Empirical Review

Gavalas and Syriopoulos (2014) investigated banking performance as far as lending rates and loan quantity was concerned. According to the study findings, higher capital requirements, by raising banks' marginal cost of funding, lead to higher lending rates. They also found that the banking sector worldwide is under reforms and constant review of banking regulations. Accordingly, the new regulations tighten the definition of bank capital and require that banks hold a larger amount of capital for a given amount of assets and expand the coverage of bank assets. This study singly focused on the impact that lending rates have on financial performance leaving other factors such as asset quality and capital adequacy.

Hurka (2017) studied the impact of credit risk management on the profitability of Nordic commercial banks. He studied various macroeconomic indicators and confirms a significantly positive relationship between the economic situation in the country, credit

risk management in banks and overall financial performance of the banks. Thereinafter he discusses that it is possible to predict the amount of the defaulted loans in the future based solely on the macroeconomic measurements. These findings signify the role that the economic environment plays in the distribution of nonperforming assets in the banking sector and the profitability of the bank. This study focuses only on the macroeconomic indicators and did not attempt to look at industry specific and bank specific factors in financial performance.

Shleifer and Vishny, (2010) in their publication on Unstable banking whose results were driven by the large number of unlisted banks included in their sample which primarily fund their loans by customer deposits as indicated by relatively low average loan-to-deposit ratios. Moreover, the study did not include investment banks hence, the risks stemming from the excessive reliance on wholesale funding as, for example, described by Huang and Ratnovksi (2008) should be significantly lower for most of the banks included in the study sample.

Diamond and Rajan (2000) highlighted how the capital structure of banks affects their credit-creation and liquidity creation functions. In particular, banks provide liquidity to depositors upon their demand (on the liability side) and to difficult, illiquid borrowers on the asset side of the balance sheet), thus enhancing the flow of credit in the economy. They did note that deposits are fragile and prone to runs. As a result, illiquidity may be created by banks as a defense mechanism. The first natural response of banks which are subject to liquidity shortages is that they may ration financing, providing it only to good-quality borrowers (Webb2000) which, overall, could negatively affect profits for the

banks. Other than the capital structure other factors such as asset quality affect financial performance. This has not been addressed in their study.

Grigorian and Manole (2002) used data envelopment analysis to bank-level data on some 17 transition economies from 1995-1998. Their results suggested that well capitalized banks ranked higher in terms of their ability to collect deposits than their less capitalized counterparts. This was attributed to the possibility of implicit deposit insurance which in turn encourages more deposits. However they found less evidence linking capitalization to revenues. However in their investigations there was evidence that foreign banks were able to attract more deposits by paying lower rates on deposits. This was attributed to implicit deposit insurance. The ability to attract deposits at lower rates would mean higher net interest margins and hence higher profitability. Data envelopment analysis is not popular in measurement of financial performance.

Berlin and Mester (1999) conducted a study on deposits and relationship lending. From the complete data set of banks, they constructed a panel that included 126 banks that reported in each quarter from the first quarter of 1977 through the fourth quarter of 1989. They concluded that core deposits such as demand and savings deposits, which are largely inelastic, have historically insulated the bank funding costs against economic shocks. This study was carried out 2 decades ago and there has been many changes in the industry since then.

Ratnovski and Huang (2009) found out that Canadian banks compared to other large commercial banks in OECD countries were more resilient during the 2008 economic turmoil since they relied more on depository funding as compared to the other banks that relied more on wholesale funding. A related study in Kenya conducted by Ochung (1999)

established that there was a very strong correlation between deposits of commercial banks and Financial Institutions and their individual performances. There have been a lot of developments in the industry since then.

Muriithi and Waweru (2017) studied liquidity risk and financial performance of commercial banks in Kenya. . Findings indicated that NSFR is negatively associated with bank profitability both in long run and short run while LCR does not significantly influence the financial performance of commercial banks in Kenya both in long run and short run. However, the overall effect was that liquidity risk has a negative effect on financial performance. It is therefore advisable for a bank's management to pay the required attention to the liquidity management however capital adequacy and asset management were not given any attention in this study.

Obuya (2017) reviewed literature on debt financing and financial performance of micro and small enterprises. As per the various literature reviewed, trade credit may be necessary when these enterprises face cash inflows problem that hampers them from purchasing their merchandises on cash basis and at the same time it serves as a safety net when suppliers offer discounts for earlier settlement, conversely suppliers impose penalties for breach of contractual obligation Trade credit as a spontaneous source of finance could be relatively cheaper compared to bank loan. This study did not have direct relationship with the performance of the lending institutions.

Kiragu (2010) reviewed the relationship between the capital adequacy and the profitability of banks in Kenya. He concluded that a positive relationship existed between capital and the profitability. However, the relationship was found to be stronger in

smaller banks compared to larger banks, which further implied a case of diminishing marginal returns. However, he failed to address the role of deposits in bank performance.

Gikonyo (2011) conducted a study on the asset liability management and profitability of commercial banks in Kenya. The study drew out the importance minimizing the opportunity costs of holding deposit reserves and the incidence of non-performing loan portfolio. The study suggested that effective credit risk management practices such as credit assessments, information gathering and aggressive debt collection practices may be used as part of the management of the quality of assets and the minimization of exposures from liabilities. However, the study failed to isolate the effect of deposit levels on the financial performance of commercial banks.

Mwathi (2009) conducted a study on the relationship between commercial banks financial performance and their ownership structure. The author noted that a majority of banks with a significant government holding were outperformed by banks with a large private ownership. Listed banks also seem to perform better than non-listed banks perhaps because of the added requirements for good governance. However, the author failed to relate the level of deposits to the performance of commercial banks.

Olweny and shipho (2010) attempted to determine and evaluate the effects of bank-specific factors; Capital adequacy, Asset quality, liquidity, operational cost efficiency and income diversification on the profitability of commercial banks in Kenya. The data was analysed using multiple linear regressions method. The analysis showed that all the bank specific factors had a statistically significant impact on profitability, while none of the market factors had a significant impact. Further research on factors influencing the

liquidity of commercials banks in the country could add value to the profitability of banks and academic literature.

2.5 Summary of Literature review

The independent variable is the Customer funding level in commercial banks. The dependent variable of the study is financial performance which will be measured by return on assets (ROA). The ability of the bank to supply safe and liquid deposits will adversely affect the value and performance of the institution. Some studies link level of deposits to positive financial performance of banks, others link it to negative performance while others still find no relationship at all.

Banks fund themselves through a wide range of financial instruments, from both retail and wholesale sources. Accounting for most of the former sources are customer deposits and loans. Customer deposits are the main funding source for banks that have traditional deposit-taking and loan-making business models. Deposits payable on demand. Retail deposits are relatively stable, particularly if covered by a credible deposit guarantee scheme. Other types of deposits can be less stable, including uninsured deposits, foreign currency deposits, deposits collected though Internet banking, and those collected from nonresidents, corporations, money market funds, and high-net-worth individuals. The Funding matters for financial performance because a healthy funding structure lowers probability of making losses.

Although extensive research has generally been documented, few studies have been undertaken in Kenya on the role the impact of using customer funding on the financial performance of commercial banks in Kenya. Okun (2012) carried out a correlation

analysis on the deposit portfolio as a determinant of commercial bank profitability and found a positive correlation between deposit portfolio and bank profitability. Wambari (2017) suggested that customer deposits have a significant and negative effect on earnings of banks since it is contains an opportunity cost.

Majority of studies on the performance of commercial banks have been pegged on interest rates Korir (2016), loan repayment Mugambi *et al.* (2016) and liquidity risk Muriithi and Waweru (2017). Study by Obuya (2017) was mainly a review of literature on finacial performance but did not review the performance of lending institutions but rather that of the enterprise that borrows from the banks. The study by Ngumi (2014)also gave little attention to customer deposits but focused on the impact that innovation had on the financial performance of commercial banks.

The main gap however is that there is hardly any study that has been carried out to show the impact that customer funding has on the financial performance of commercial banks in Kenya. To this end, this study was carried out to fill these gaps left by previous studies.

2.6 Conceptual Framework

A conceptual framework is a logically developed, described and elaborated network of interrelationships among variables integral in the dynamics of a situation being investigated (Bryman, 2012). It explains the theory underlying these relationships and describes the nature and direction of these relationships (Kothari, 2004). It will illustrate the relationship that exists between the dependent variable that is financial performance of commercial banks and the independent variables that include performance determinants notably; capital adequacy, asset quality, earnings ability and liquidity.

This study's conceptual framework is as detailed in figure 2.1 below.

Financial performance is the process of measuring the results of an organization policies and operations in terms of monetary value (Tihomir 2001). These results are reflected in the firm's profitability, liquidity or leverage. Capital adequacy focuses on the total position of bank's capital and protects its depositors from the potential shocks of losses that the bank might incur Kolinska (2016).

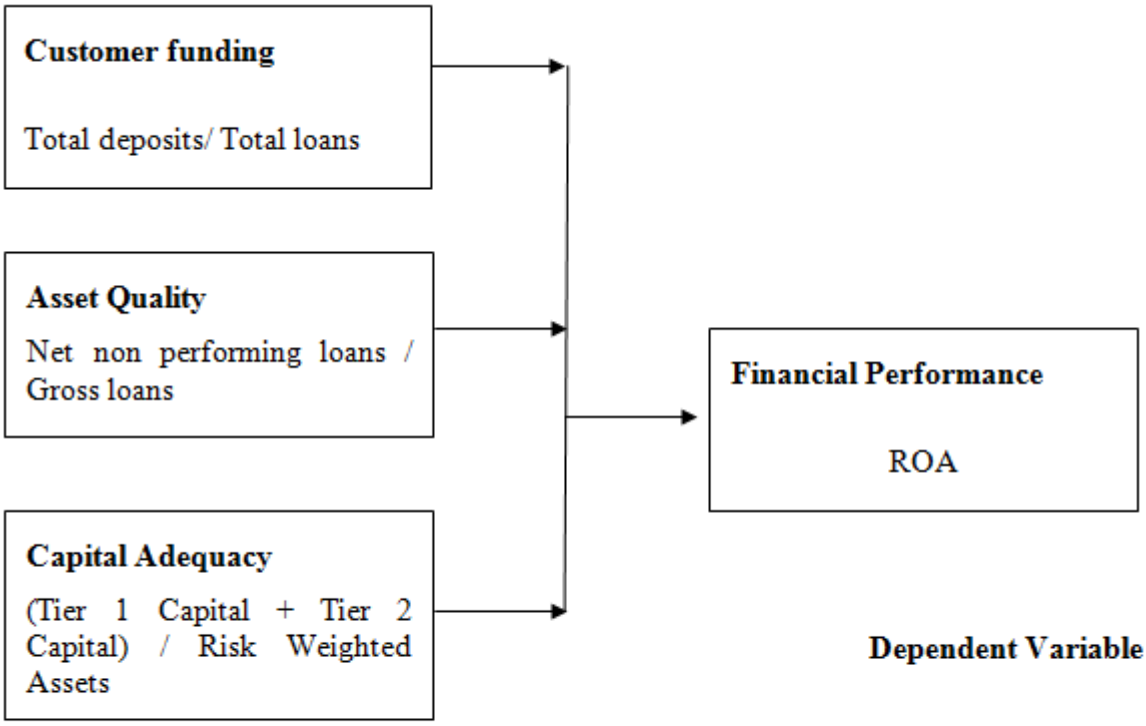

Figure 2.1 Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology that was used in undertaking the study. The section covers the research design and research methodology used to test the variables. In particular, the target population, the type of data to be collected, data collection instrument, data collection procedure, pilot test, validity and reliability of the instrument, and the data analysis and presentation are discussed.

3.2 Research Design

Elahi & Dehdashti, (2011) describes research design as a plan that describes how, when and where data are to be collected and analyzed. The focus of this study was to establish the relationships between variables of interest and not the causal effects. It is important to note that just because variables are related, does not necessarily mean that one directly causes the other (Arasa, 2008). This study used descriptive in nature and involved quantitative analysis of data.

3.3 Target Population of the Study

The research is targeted towards commercial banks in Kenya. The list of commercial banks as published on Central Bank of Kenya website are 44. This is as illustrated in the table 3.1 below.

Table 3.1 Target Population

Type of Bank	Population	Percentage
Foreign owned but locally incorporated institutions	8	18%
Foreign owned not locally incorporated	4	9%
Foreign owned but locally incorporated institutions	2	5%
Institutions with Government participation	6	14%
Institutions locally owned	24	54%
Total	**44**	**100%**

Source: Central Bank of Kenya

3.4 Methods of Data Collection

Data was collected from published annual financial statements of the sampled banks for both dependent and independent variables of the study. The source provided a higher quality data, given that it was a permanent source of information, which will enable this study to relatively cross check the data easily, hence taken to be reliable. Data for the study was collected and compiled from the banks existing financial reports.

3.5 Data Analysis

The study used descriptive statistics to establish a relationship between dependent and independent variables with the help of SPSS 21. The dependent variable of the study is return on assets (ROA) and the independent variable of the study is the Customer Funding. The present research work is based on historical accounting data; it has been

collected from the annual reports of the sampled banks. The data interpretation was made by ratios and also based on mean, standard deviation, Skewness, kurtosis, paired t –test and correlation. The study applied ordinary least squares (OLS) technique.

To determine whether there exists any relationship between the explanatory variables, a multi-multicollinearity test will be carried out. This study will use the correlation matrix to test for the implied relationship between the independent variables.

The Customer Funding and return on assets is demonstrated in the following regression model. The return on assets included in the analysis as the dependent variable and the independent variable is denoted as loan deposit ratio.

The regression model is specified below and the following symbols were used to identify the respective variables.

$Y = \alpha + \beta_1 X_1 + \beta_2 X_{2+} \beta_3 X_{3+} \varepsilon$

Where

Y = Dependent Variable (Financial Performance measured by ROA= (Profit before tax/Total assets) 100)

α = Constant (coefficient of intercept)

$\beta_1 - \beta_3$ = Regression coefficients

X_1= Customer funding (Total deposits/ Total loans)

X_2=Asset Quality (Net non-performing loans / Gross loans)

X_3= Capital adequacy ((Tier 1 Capital + Tier 2 Capital) / Risk Weighted Assets)

ε=Error term

3.5.1 Diagnostic Test

Estimating heterogeneous time series data would lead to biased standard errors and therefore inference was adversely affected. To test for Heteroskedasticity, likelihood test was applied.

Auto correlation test was also carried out. Assumptions of OLS indicate that there should not be any relationship or correlation between the independent variables. To test for this relationship Wooldridge test was used to test for serial correlation.

3.5.2 Testing of significance

The study will be at 0.05 level of significance and was tested using paired t test. In order to determine the relationship between customer funding and financial performance, a multiple regression analysis was conducted.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The chapter presents the findings of the data collected and analyzed. The presentation is for the trend analysis, descriptive findings and inferential analysis. Secondary data collected over a span of 7 years was used in the study.

4.2 Descriptive Analysis

The study conducted descriptive analysis to establish the mean, standard deviation, maximum and minimum values of the study variables that is customer funding, asset quality, capital adequacy and financial performance of commercial banks measured as returns on assets. The results for the descriptive results are indicated in Table 4.1.

The findings in Tale 4.1 reveal that the minimum customer funding ratio captured in terms of the ratio of total deposits to total loans was negative 0.68 while the maximum value was 16.18. On average, the customer funding was 1.51 over the study period which indicated that the commercial banks had more deposits than loans an indicator that there was less income from the loans. A standard deviation of 2.02 revealed that the variation in customer funding over the study period was high.

The results also revealed that the minimum asset quality recorded in the study period was negative 1.33 while the maximum was 0.97. The average asset quality as captured by the ratio of net non-performing loans to gross loans was 0.97. This indicates that on average, the credit risk of the commercial banks over the study period was manageable as the asset

quality ratio is below one. There was also a high variation in the asset quality among the commercial banks over the study period as shown by a higher value of standard deviation of 0.18.

The results also showed that capital adequacy as captured by the ratio of capital to risk weighted assets recorded a minimum value of 5.90 and a maximum value of 270.39 over the study period. The mean value of 26.17 revealed that on average, the commercial banks had more tiers I and tier 2 capital as compared to the risk weighted assets which was enough cushion to absorb a reasonable amount of losses before they become insolvent and consequently lose depositors' funds. The variation in the capital adequacy was high as shown by a standard deviation of 21.15.

The minimum returns on assets recorded over the study period were a loss of negative 11.43 while the maximum was 8.80. On average, the returns on assets was 2.97 which was positive revealing that over the study period, the commercial banks posited positive financial performance on average but the variation was high from year to year and from bank to bank as shown by a high standard deviation of 2.38.

Table 4.1 Descriptive Analysis

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Customer funding	400	(0.68)	16.18	1.51	2.02
Asset Quality	400	(1.33)	0.97	0.08	0.18
Capital Adequacy	400	5.90	270.39	26.17	21.15

ROA	400	(11.43)	8.80	2.97	2.38

4.3 Trend Analysis

Since the data was collected over a study period of 10 years, the trends were established in order to establish the changes in the variables over time in order to establish the time effects. The trend analysis has been established for each of the 4 variables.

4.3.1 Trend Analysis of Financial Performance

The findings in Figure 4.1 reveal unsteady decreasing trends for the financial performance of commercial banks calculated as an annual mean for the study period. The results reveal that the return on assets for the banking sector has been decreasing since the year 2009 up to the year 2016 although the decrease is not steady. This confirms the research problem.

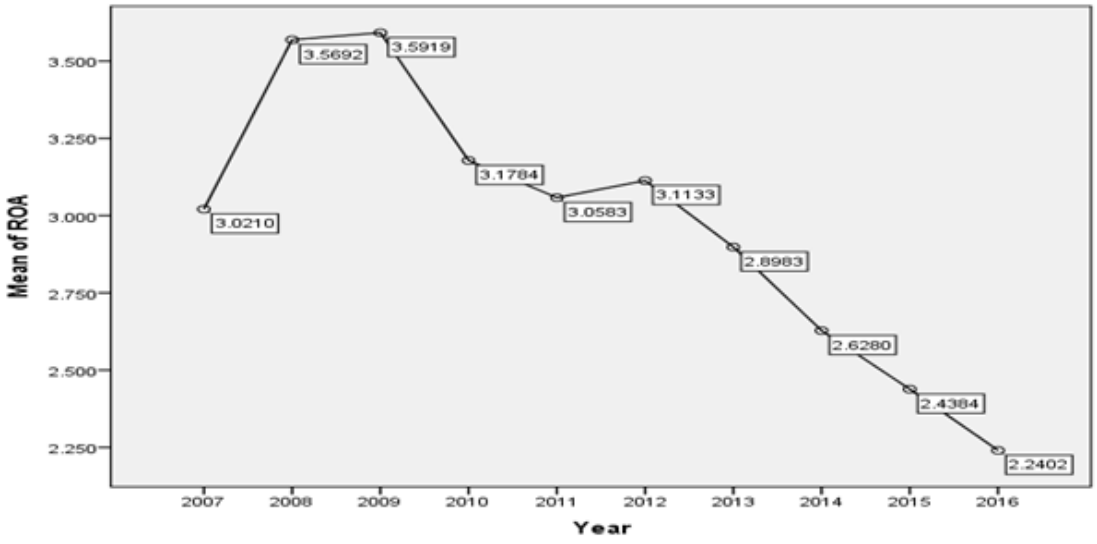

Figure 4.1 Trend Analysis of Financial Performance

4.3.2 Trend Analysis of Customer Funding

The trends for customer funding confirms the descriptive analysis results that there was high variations in the customer funding from year to year. The results reveal unsteady fluctuations in the customer funding ratio but the lowest value was recorded in the year 2011 while the highest was recorded in the year 2014. However, for the last three years of the study period, this ratio indicated decreasing trends which is a sign of fewer loans being issued as opposed to the available customer deposits hence less income from loans. This is a reflection of the trends of the decreasing returns on assets.

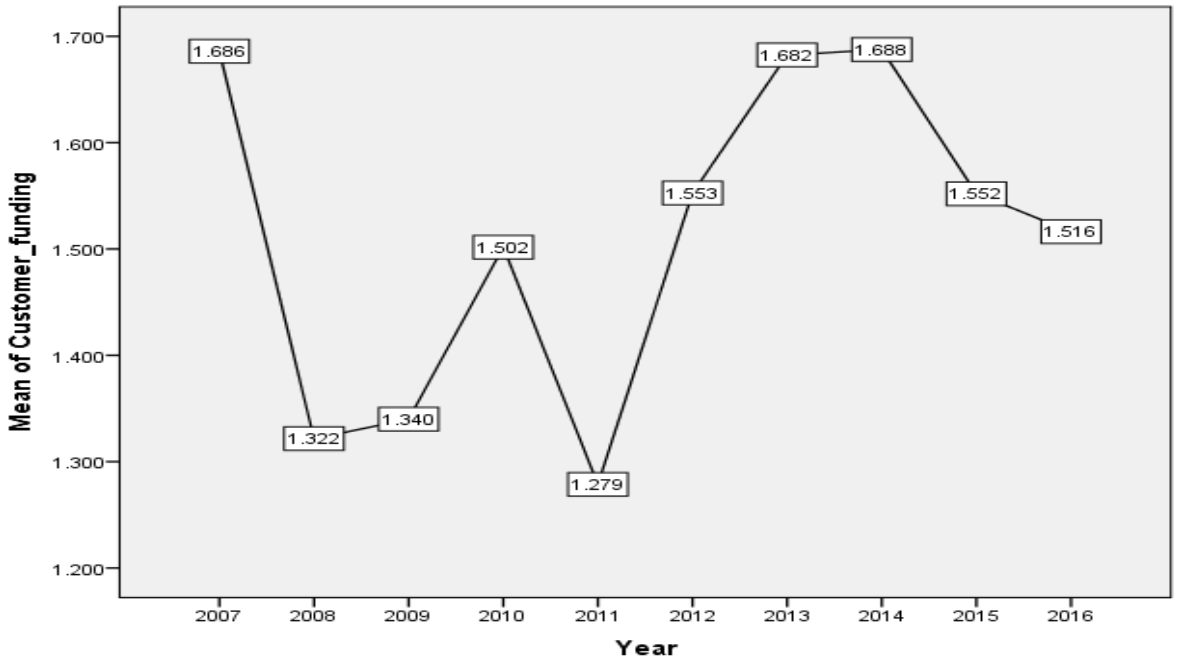

Figure 4.2 Trend Analysis of Customer Funding

4.3.3 Trend Analysis of Asset Quality

The findings in Figure 4.3 revealed that from the year 2007 to the year 2011, the trends in asset quality of the commercial banks unsteady but hence forth, the commercial banks had on average, a steadily increasing trends in asset quality. This implies that the commercial banks were facing more credit risk since their ratio of non-performing loans to the total loans was increasing over the years. This poses a risk and affects the performance of the commercial banks negatively and this trend compliments the poor performance captured by returns on assets.

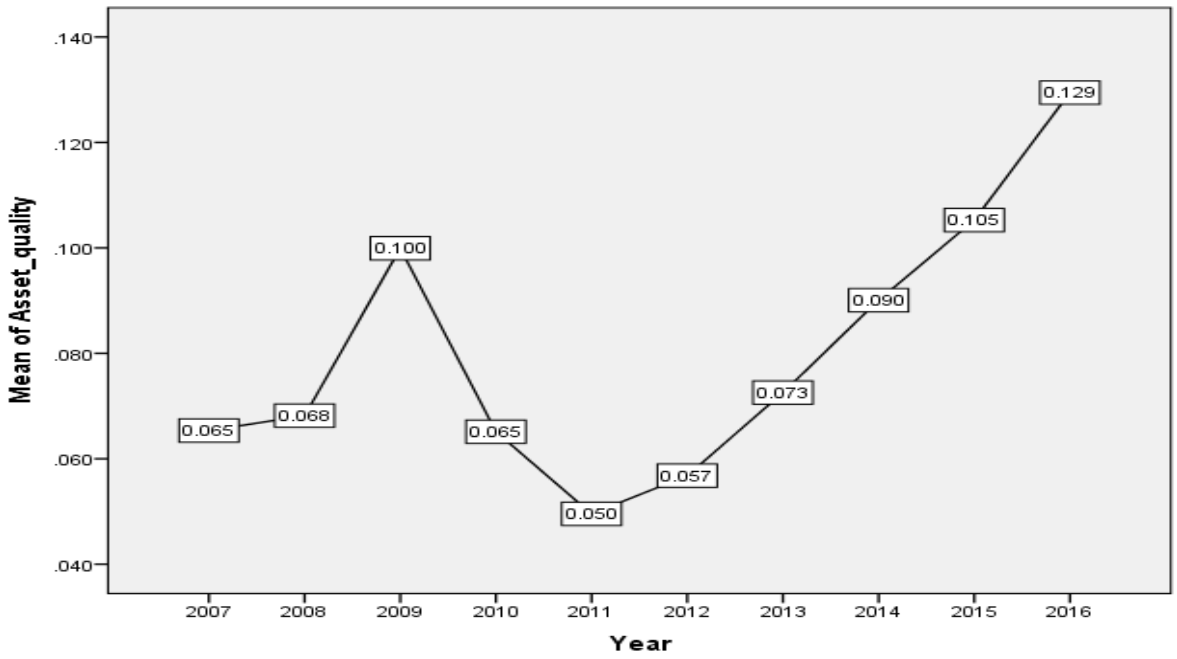

Figure 4.3 Trend Analysis of Asset Quality

4.3.4 Trend Analysis of Capital Adequacy

The results in Figure 4.4 reveal unsteady trends in capital adequacy as captured by the ratio of tier 1 and tier 2 capital to risk weighted assets. A decrease in this ratio reveals that the commercial banks are being exposed to more risk because of less capital to cushion them before insolvency. The results reveal that since the year 2009, the commercial banks have recorded unsteadily decreasing capital adequacy ratio and that shows that they have been exposed more and more between the year 2009 and 2014. From the year 2014, the ratio has been improving gradually.

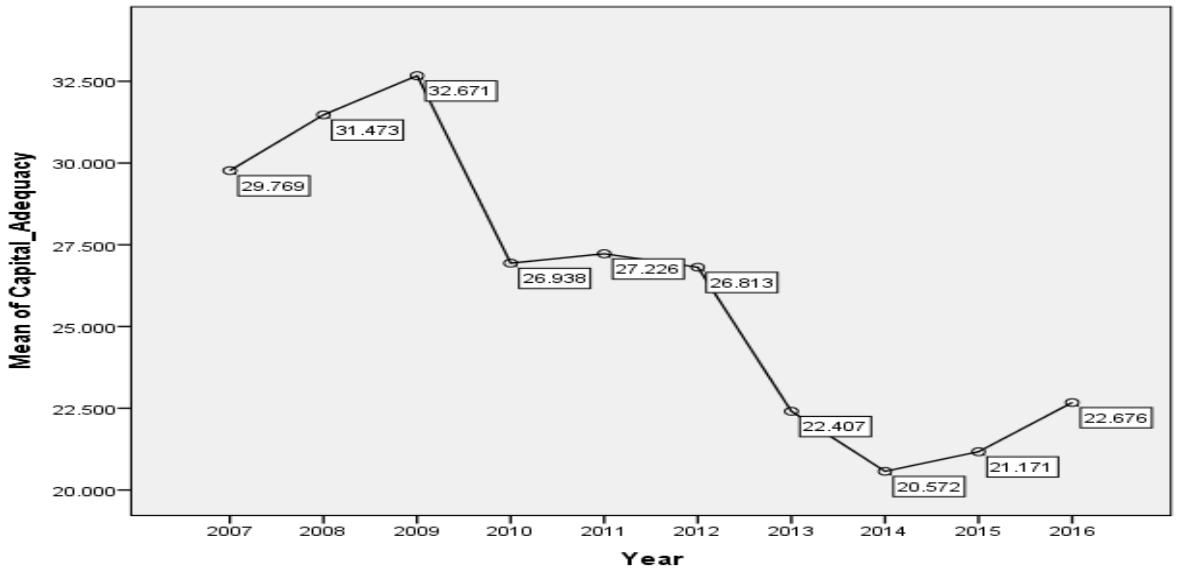

Figure 4.4 Trend Analysis of Capital Adequacy

4.4 Diagnostic Tests

Before running the regression analysis, the study ensured that the data obeyed the assumptions of classical linear regression entailing Heteroskedasticity, autocorrelation and multicollinearity.

4.4.1 Heteroskedasticity Test

The assumption of classical linear regression entails that the error term of a regression model needs to have a constant variance. When the error term don't have constant variance, its termed as Heteroskedasticity. The study tested for Heteroskedasticity using Likelihood Ratio Test. The results in Table 4.2 indicate that the null hypothesis of Homoscedastic error terms is rejected as supported by a Prob > chi^2 which is less than the critical p value (0.05). There was hence a need to use robust standard errors when running the regression model so as to control the problem of Heteroskedasticity.

Table 4.2 Likelihood ratio test for Heteroskedasticity

Likelihood ratio test	
Lr Chi2(3)	59.41
Prob > Chi2	0.000

4.4.2 Autocorrelation Test

The assumption of classical linear regression also entails that the error term of a regression model should not be correlated over time. When the error term is correlated over time means that it is having a problem of autocorrelation. The study tested for presence of autocorrelation using Wooldridge test. The null hypothesis for the test is that there is no problem of autocorrelation. The findings in Table 4.3 reveal that the data had a problem of autocorrelation since the null hypothesis was rejected at 5% level of significance. This is because the Prob > F was 0.0003 which is less than the 5% level of significance.

Table 4.3 Wooldridge test for Autocorrelation

Wooldridge test for autocorrelation
H0: no first order autocorrelation
F(1, 39) = 15.995
Prob > F = 0.0003

4.4.3 Multicollinearity Test

The study conducted a multicollinearity test to establish whether the independent variables are highly correlated. A variance inflation factor method was used. A VIF factor value less than 10 indicates no presence of multicollinearity. Since all the independent variables had a VIF value less than 10, there was no presence of multicollinearity.

Table 4.4 Variance Inflation Factor Test of Multicollinearity

Variable	VIF	1/VIF
Capital Adequacy	1.04	0.965
Customer Funding	1.03	0.969
Asset Quality	1.01	0.995
Mean VIF	1.02	

4.5 Correlation Analysis

The study established the association between customer funding and financial performance of commercial banks in Kenya using a Pearson Correlation analysis. The findings are as established in Table 4.5. The findings revealed that customer funding has a negative significant correlation with financial performance of commercial banks as captured by returns on assets (r = -0.263, Sig = 0.000). This implies that an increase in customer funding is associated with a decrease in financial performance.

The findings also revealed that asset quality has a negative significant correlation on financial performance of commercial banks measured as returns on assets (r = -0.239, Sig = 0.000). This implies that an increase in asset quality is associated with a decrease in financial performance. The study findings further indicated that capital adequacy has a positive significant effect on financial performance of commercial banks (r = 0.122, Sig = 0.014). This implies that an increase in capital adequacy is associated with an increase in financial performance.

Table 4.5 Correlation Analysis

		Customer Funding	Asset Quality	Capital Adequacy	ROA
Customer Funding	Pearson Correlation	1			
	Sig. (2-tailed)				
Asset Quality	Pearson Correlation	-0.016	1		
	Sig. (2-tailed)	0.747			
Capital Adequacy	Pearson Correlation	.174**	0.067	1	
	Sig. (2-tailed)	0	0.18		
ROA	Pearson Correlation	-.263**	-.239**	.122*	1
	Sig. (2-tailed)	0.000	0.000	0.014	
	N	400	400	400	400
** Correlation is significant at the 0.01 level (2-tailed).					
* Correlation is significant at the 0.05 level (2-tailed).					

4.6 Regression Analysis

The relationship between customer funding and financial performance of commercial banks in Kenya was established using an ordinary regression analysis. The regression analysis results presented in Table 4.6 indicates that the coefficient of determination (R squared) was 0.164 which implies that 16.4% of the changes in financial performance of commercial banks in Kenya is explained by customer deposits, capital adequacy and asset quality and the remaining percentage is explained by other factors.

Table 4.6: Coefficient of Determination

R	R Square	Adjusted R Square	Std. Error of the Estimate
.405a	0.1640	0.1580	2.1836
a Predictors: (Constant), Capital Adequacy, Asset quality, Customer funding			

The study also established the model significance of the regression model customer funding to financial performance of commercial banks in Kenya. The study findings revealed that the overall model was significant. The F statistic for the model of 25.873 was significant (Sig = 0.000), hence an indication that the model linking customer funding to financial performance of commercial banks in Kenya was significant.

To corroborate the findings, the study also used the F-distribution table to obtain the F-critical value ($F_{0.05\,(3,396)}$) calculated at α = 5%, using denominator degrees of freedom of 396 and numerator degrees of freedom of 3 and compared against the F-calculated value of 25.873. The rule of the thumb is that if F-calculated is greater than the F-critical, then the model is significant. The F-critical value from the F-distribution table was 2.627, which is less than 22.873 (22.873 > 2.627) hence it confirms the previous findings that the model linking model linking customer funding to financial performance of commercial banks in Kenya was significant.

Table 4.7: Overall Model Significance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	370.091	3	123.364	25.873	.000
Residual	1888.138	396	4.768		
Total	2258.229	399			
Dependent Variable: ROA					
Predictors: (Constant), Capital Adequacy, Asset quality, Customer funding					

The study finally presented the model coefficients in Table 4.8 and the results revealed that Customer funding has a negative significant effect on financial performance of commercial banks implying that an increase in customer funding leads to a decrease in financial performance (Beta = -0.354 , Sig = 0.000). The findings also showed that asset quality has a negative significant effect on financial performance of commercial banks in Kenya (Beta = -3.409, Sig = 0.000). This shows that an increase in asset quality leads to a decrease in financial performance of commercial banks in Kenya.

The finding further revealed that capital adequacy has a positive significant effect on financial performance of commercial banks in Kenya (Beta = 0.022, Sig = 0.000). This indicates that an increase in capital adequacy leads to an increase in financial performance of commercial banks in Kenya.

Table 4.8: Model Coefficients

Predictor Variables	B	Std. Error	t	Sig.
(Constant)	3.217	0.188	17.087	0.000
Customer funding	-0.354	0.055	-6.434	0.000
Asset quality	-3.409	0.611	-5.577	0.000
Capital Adequacy	0.022	0.005	4.101	0.000
Dependent Variable: ROA				

4.7 Discussion

The findings revealed that customer funding has a negative significant effect on financial performance of commercial banks. This implies that having a higher customer funding ratio contributed by more customer deposits than total loans, leads to a decrease in performance of commercial banks more deposits becomes a liability in that the commercial bank has to pay interest to the deposit holders. Furthermore, higher customer funding through high deposits indicates that the bank has less aggregate interest revenue generated from loans since there is fewer loans being offered. It is understandable that the more banks offer more loans the more it goes to generate high revenue and profit. The findings are consistent with the findings of a study by Devinaga Rasiah (2010) who argued that customer deposits can affect financial performance of commercial negatively since when banks accept deposits this is a liability for the bank, further to this the bank is liable to pay interest to the deposit holders.

The findings also revealed that asset quality has a negative significant effect on financial performance of commercial banks measured as returns on assets. The findings imply that an increase in asset quality captured by more net non-performing loans leads to poor financial performance because of the losses. The findings are consistent with Olweny and shipho (2010) who revealed that the effect of bank- specific factors; Capital adequacy, Asset quality, liquidity, operational cost efficiency and income diversification on the profitability of commercial banks in Kenya was statistically significant.

The study findings further indicated that capital adequacy has a positive significant effect on financial performance of commercial banks. The findings indicate that an increase in capital adequacy indicated by an increase in tier I and tier 2 capital as compared to the risk weighted assets provides enough cushion to absorb a reasonable amount of losses before they become insolvent losing depositors' funds hence affecting financial performance positively. The findings are consistent with the findings of a study by Kiragu (2010) who reviewed the relationship between the capital adequacy and the profitability of banks in Kenya and concluded that a positive significant relationship existed between capital adequacy and the profitability of commercial banks in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The trends analysis revealed unsteady decreasing trends for the financial performance of commercial banks calculated as an annual mean for the study period. The trends for customer funding revealed high variations in the customer funding from year to year. The trend analysis also revealed that since the year 2009, the commercial banks have recorded unsteadily decreasing capital adequacy ratio and that shows that they have been exposed more and more between the year 2009 and 2014

The inferential results showed that customer funding has a negative significant effect on financial performance of commercial banks implying that an increase in customer funding leads to a decrease in financial performance (Beta = -0.354 , Sig = 0.000). This implies that having a higher customer funding ratio contributed by more customer deposits than total loans, leads to a decrease in performance of commercial banks more deposits becomes a liability in that the commercial bank has to pay interest to the deposit holders.

The findings also showed that asset quality has a negative significant effect on financial performance of commercial banks in Kenya (Beta = -3.409, Sig = 0.000). The findings

also revealed that asset quality has a negative significant effect on financial performance of commercial banks measured as returns on assets.

The finding further revealed that capital adequacy has a positive significant effect on financial performance of commercial banks in Kenya (Beta = 0.022, Sig = 0.000). The findings indicate that an increase in capital adequacy indicated by an increase in tier I and tier 2 capital as compared to the risk weighted assets provides enough cushion to absorb a reasonable amount of losses before they become insolvent losing depositors' funds hence affecting financial performance positively.

5.2 Conclusions

The study concluded that customer funding has a negative significant effect on financial performance of commercial banks and that higher customer funding ratio as a result of more customer deposits than total loans, leads to a decrease in performance of commercial banks more deposits becomes a liability in that the commercial bank has to pay interest to the deposit holders.

The study also concluded that asset quality has a negative significant effect on financial performance of commercial banks in Kenya implying that an increase in non-performing loans leads to poor performance of commercial banks in Kenya.

Another conclusion made by the study is that capital adequacy has a positive significant effect on financial performance of commercial banks in Kenya thus revealing that an increase in capital adequacy indicated by an increase in tier I and tier 2 capital as compared to the risk weighted assets provides enough cushion to absorb a reasonable

amount of losses before they become insolvent losing depositors' funds hence affecting financial performance positively.

5.3 Recommendations

The study recommends that since customer funding has a negative significant effect on financial performance of commercial banks there is a need for commercial banks to balance between the customer deposits they keep and the loans they give out. This is because more customer deposits than total loans become a liability in terms of interest paid to the deposit holders.

The study also recommend that since asset quality has a negative significant effect on financial performance of commercial banks in Kenya, there is a need for commercial banks in Kenya to come up with measures of handling the non-performing loans through enhanced credit appraisal systems.

The study also recommends that since capital adequacy has a positive significant effect on financial performance of commercial banks in Kenya, there is a need for commercial banks in Kenya to ensure a high level of capital adequacy by increasing the tier one and two capital so as to increase the cushion to be able to absorb a reasonable amount of losses in case of default.

5.4 Limitations of Study

However accurate, no study is free of limitations. The data used was secondary in nature and its accuracy is a concern. The researcher is not aware of how it was prepared and the various manipulations and assumptions that were used when preparing and presenting it.

The study only focused on 10 years hence a need to cover more years so as to compare the study findings. Perhaps using a longer time period would have yielded different trends and results. This is a limitation of the study.

5.5 Areas for Further Study

The study suggests that further areas of study should focus on a longer time span, probably 20 years. This would clarify whether the observed relationship changes over the years. Such a study would call for advanced econometric and statistical analysis such as time series analysis. Future studies can also use both secondary and primary data by including qualitative analysis in the research methodology. This can help to bring out a clear picture of the financial performance of commercial banks. Future studies can also consider other bank specific factors other than the three investigated in the study.

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APPENDICES

APPENDIX I: LIST OF BANKS

A) Foreign Owned Institutions

i) Foreign owned not locally incorporated
- Bank of India
- Citibank N.A. Kenya
- Habib Bank A.G. Zurich
- Habib Bank Ltd.

ii) Foreign owned but locally incorporated institutions (Partly owned by locals)
- Bank of Baroda (K) Ltd.
- Barclays Bank of Kenya Ltd.
- Diamond Trust Bank Kenya Ltd.
- K-Rep Bank Ltd.
- Standard Chartered Bank (K) Ltd.
- Ecobank Ltd
- Gulf Africa Bank (K) Ltd
- First Community Bank

iii) Foreign owned but locally incorporated institutions
- Bank of Africa (K) Ltd.
- UBA Kenya Bank Limited

B) Institutions with Government Participation

- Consolidated Bank of Kenya Ltd
- Development Bank of Kenya Ltd.
- Housing Finance Ltd.
- Kenya Commercial Bank Ltd.
- National Bank of Kenya Ltd.
- CFC Stanbic Bank Ltd.

C) Institutions Locally Owned

- African Banking Corporation Ltd.
- Jamii Bora Bank Ltd.
- Commercial Bank of Africa Ltd.
- Co-operative Bank of Kenya Ltd.
- Credit Bank Ltd.
- Charterhouse Bank Ltd.

- Chase Bank (K) Ltd.
- Dubai Bank Kenya Ltd
- Equatorial Commercial Bank Ltd.
- Equity Bank Ltd.
- Family Bank Ltd.
- Fidelity Commercial Bank Ltd.
- Fina Bank Ltd.
- Giro Commercial Bank Ltd.
- Guardian Bank Ltd.
- Imperial Bank Ltd.
- Investment & Mortgages Bank Ltd.
- Middle East Bank (K) Ltd.
- NIC Bank Ltd.
- Oriental Commercial Bank Ltd.
- Paramount Universal Bank Ltd.
- Prime Bank Ltd.
- Trans-National Bank Ltd.
- Victoria Commercial Bank Ltd.