THE RELATIONSHIP BETWEEN CORE CAPITAL, LIQUIDITY, AND PROFITABILITY OF DEPOSIT-TAKING MICRO-FINANCE INSTITUTIONS IN KENYA

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ABSTRACT

The purpose of this research was to look at the link between core capital, liquidity, and profitability of the microfinance-banks in Kenya. The population for this study was all the thirteen microfinance-banks operating as at 31st December 2017, while the sample comprised the nine deposit-taking microfinance institutions that were in operation for five years from 2013-2017, which represented 69% of the total population. The study used descriptive research design and multiple regression model that was analyzed using SPSS software version 22. Secondary data sources in form of audited financial statements extracted from CBK website was used. The study results showed that core capital and liquidity were positively but weakly correlated with profitability, while operational efficiency which was used as a control variable was strongly and negatively correlated with profitability. The coefficient of determination R^2 was 0.839 hence the three independent variables combined explained 83.9% variation in profitability of MFB's. The Durbin Watson test for the study variables was 2.072, implying that there was no autocorrelation between the study variables. The level of significance for the regression model was less than 0.01, hence the three independent variables were significant in estimating the profitability of MFB's. This study concluded that core capital and liquidity are not significant determinants of profitability for deposit-taking microfinance institutions evidenced by p-values of 0.210 and 0.424 correspondingly which were more than 0.01. The recommendations of this study are that microfinance practitioners should give due attention to core capital, liquidity management, and operational cost management to maximize profitability and shareholders wealth. The regulator, CBK should also review core capital minimum threshold upwards so as to ensure MFB's are adequately capitalized to protect depositor's funds and ensure their robust growth.

Keywords: Micro-Finance, Capital, Liquidity, MFB's, Profitability.

LIST OF ABBREVIATIONS

DTM – Deposit-taking Microfinance

CBK – Central Bank of Kenya

PAR – Portfolio at Risk

ROA – Return on Assets

ROE – Return on Equity

GDP – Gross Domestic Product

OER – Operating Expense Ratio

MFB – Microfinance Bank

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Core capital, liquidity, and profitability are important aspects of any profit-oriented organization. The Central Bank of Kenya prudential guidelines defines Core Capital as the shareholders' equity in a firm, which is of permanent nature. Liquidity means the capability of a business to hold sufficient resources to settle maturing obligations as and when they fall due (Eljelly, 2004). Good liquidity management involves proper planning and control of working capital in a way that minimizes the risk of not meeting maturing obligations and maximizes profitability (Lovy, 2016). Profit means revenue free from expenses for a period, usually a year (Heibati, Nourani, and Dadkhah, 2009). Profitability is affected by various internal and external factors like risk management, capitalization, competitive strategies, operational efficiency, and the operating environment Laffont and N'Guessan (2000). Liquidity and profitability give complete information on the performance of a firm. The key aspect of liquidity management is striking an optimal balance with profitability (Muiruri, 2017)

This study is anchored on four main theories namely: the anticipated income theory, liability management theory, pecking order theory and the capital buffer theory. The anticipated income theory contends that financial institutions manage liquidity by matching loan payments via installments to their cash requirements. The pecking order theory contends that corporations opt to utilize internally generated finances first, then debt and last issue of equity. This theory underpins the importance of core capital as it forms a major part of internally generated funds. Retained earnings would be the most preferred source of funds and the issue of new shares

would be the last option. The capital buffer theory asserts that business firms prefer to hold more capital than recommended to act as a buffer against any negative shocks. This theory is important in that it stresses the need for firms to have adequate capitalization

The context of this study shall be the microfinance sub-sector of the banking sector which is a part of the financial services industry in Kenya. The microfinance sector in Kenya includes of the Deposit-taking microfinance banks and the credit only microfinance institutions (Microfinance Act 2006). The deposit-taking microfinance institutions are regulated by the CBK and operate within the stipulations of the Microfinance Act which allows them to take customer deposits (Omuok, 2015). On the other hand, credit only microfinance institutions are not under the Microfinance Act hence they are prohibited from taking customer deposits. This study, therefore, will focus only on MFB's in Kenya

1.1.1 Core Capital

The Central bank of Kenya prudential guidelines defines Core Capital (Tier 1 capital) as the total shareholders' equity in a firm, which is of permanent nature. Core capital for a deposit-taking microfinance institution comprises of retained earnings, reserve funds, issued and paid up share capital, share premiums and 50% of unaudited net profit, however, it excludes intangible assets like goodwill, software, and investments in subsidiaries in the banking industry (BCBS, 1999). The central bank of Kenya stipulates that DTM's should have sixty million as core capital. Further, The Central Bank of Kenya has recommended a proposal to review core capital requirements for deposit-taking microfinance institutions upwards to a threshold yet to be established. This is to effectively offer some buffer against any potential financial downfall. This proposal aims at reviewing the minimum capital requirement upwards so as to ensure that microfinance banks are effectively capitalized (Ngugi, 2018)

Core capital is important for business firms in that it ensures that they have adequate capital levels to protect creditors and is equivalent to the risk levels of their operations. It also makes the public to have confidence with the institution. Core capital also provides the cheapest source of finance for institutional operations like the acquisition of fixed assets (Muriu, 2011). Core capital of a deposit-taking can be determined by aggregating permanent shareholders equity, which includes issued and paid-up ordinary share capital, share premiums, retained earnings, and 50% of unaudited net profit less computer software, goodwill and investment in subsidiaries carrying out banking business.

1.1.2 Liquidity

Liquidity means the method employed by businesses in changing current assets to cash. Whenever a business has to settle its liabilities, it converts current assets into cash to pay off the

maturing obligations. Whenever the banks require to settle short-term financial commitments it must have that capability, this capability is referred to as "Liquidity" of a bank. This is simply a procedure that is adopted by firms to convert current assets to cash in order to pay off due financial obligations (Muhammad, Mustabsar, and Aisha, 2016). Carlin and Kogan, (2013) argue that liquidity of assets refers to the ease of their convertibility to cash to settle due liabilities. Another characteristic of liquid assets is price stability. Short-term securities and bank deposits are more liquid compared to investments in equities owing because their prices are more stable compared to the prices of short-term securities. Liquidity can be ascertained by calculating liquidity ratios like current ratio which is computed as current assets to current liabilities and acid test ratio, calculated as current assets less stocks to current liabilities, (Muhammad et al., 2016)

Liquidity management is essential because it impacts profitability. For instance, low liquidity levels force the financial institution to attract other sources of deposits which are expensive, thus reducing its overall profitability. On the other hand, high liquidity levels, reduce the return on assets hence profitability. Deposit-taking enables the microfinance bank to improve its liquidity levels and thus profitability as they pay a lower rate of interest on customer deposits and lend at a higher rate of interest (Miriu, 2011). Microfinance financial institutions with inadequate liquidity might be less immune to future uncertainty, timely delay of refinancing, disruption in meeting growth projections and increased portfolio at risk. (Brom, 2009). The Basel Committee (2009) outlined that the viability of commercial banks depends on their liquidity position. Liquidity risk for microfinance banks can be minimized by having a daily plan for finds inflows through customer deposits and loans repayments and matching them with funds outflows through loans advances and customer deposit withdrawals. (Idama, Asongo, & Nyor, 2014)

1.1.3 Profitability

Financial performance is usually a critical area that every profit-oriented organization has to constantly look into for their long-term survival and competitiveness. Profit means revenue free from expenses for a period, usually a year. (Heibati et al, 2009). Business firms can be viewed as being organic in nature in that they survive and grow, hence it's critical for a firm to generate a profit for it to survive and grow. It's also important that adequate profits are generated to finance business operations and have funds for growth and expansion. Owolabi and Obida (2012), also defines profitability as the capability of a firm to make a profit from its business undertakings. It assesses the management's efficiency in using resources to maximize shareholders wealth. Profitability can be viewed as a relative term measure which is profit in relation to other income statements or balance sheet variables such as total assets or equity.

A good performing microfinance sector is critical in supporting the stability of the microfinance system. Poor financial performance reduces the capacity of firms to absorb negative shocks, further affecting solvency (Yenesew, 2014). Profitability is important as profits add to retained earnings, which provides a cheaper source of finance. Profits also aid in absorbing shocks from interest rates changes and default on loans. Profits are also a prerequisite for businesses to access external sources of finance as well as ensure that investors get a return on their investment via payment of dividends.

1.1.4 Core Capital, Liquidity and Profitability

Business firms usually use core capital comprising issued and paid up share capital, share premiums and retained earnings to finance their operations like the acquisition of fixed assets, acquiring inventory. The more business transactions a business is able to complete, the more the revenue generated and by extension net profits. Studies done by Nyagaka (2013) in Kenya's banking sector showed that core capital and profitability were positively correlated. Osborne, Fuertes, and Milne (2017) observed that high liquidity levels are usually expensive for businesses and that it decreases profitability.

The level of liquidity affects the day to day operations of an enterprise. Low liquidity levels force the firm to attract other sources of deposit that are expensive thus negatively affecting profitability. On the other hand, high liquidity levels lower the return on assets. Liquidity and profitability have been found to have a positive relationship in the Kenyan banking (Muiruri, 2017). Maina (2011) found that liquidity and profitability were positively but weakly correlated for oil companies in Kenya. Karani (2013) established that liquidity management and profitability was positively correlated for Kenya's commercial banks and that liquidity management was a major determinant of profitability for commercial banks in Kenya. Kimondo (2014) researched the effect of liquidity on profitability for companies in non-financial sector listed in NSE and found out that liquidity and profitability were positively but weakly correlated. Omworo (2014), researching on the effect of liquidity on profitability of SMEs in Kenya established that liquidity had a positive but insignificant effect on profitability. From the above studies, liquidity and profitability are expected to be positively correlated

1.1.5 Deposit-Taking-Microfinance Institutions in Kenya

According to Omuok (2015) Microfinance encompasses the provision of various financial services like credit, deposits, money transfer services, payment services, and insurance to the poor people and their businesses in third world countries. According to Roth (2002) Microfinance services includes microcredit, micro savings, and microinsurance services. Deposit-taking microfinance bank refers to a company licensed to operate microfinance business

and includes all branches, marketing units, offices, outlets, and all other business places licensed by the Central Bank of Kenya (Microfinance Act 2006). Microfinance banks are accepted by law to mobilize deposits from the public and use the funds for extending credit facilities to their customers (Alastair, 2015).

Deposit Taking Microfinance banks mainly focus their services on taking deposits from customers and lending to their clients (Omuok, 2015). Microfinance banks are registered under the Microfinance Act of 2006 which became operational in May 2008. Deposit-taking microfinance institutions are not regarded as fully registered banks. They are however required to adhere to the regulations and control of the CBK due to the fact that that they can mobilize capital from the public through customer deposits (Alastair, 2015). In the microfinance sector, Kenya has made great progress globally and is ranked first in Africa and fifth in the world (Ayele, 2014). There were thirteen microfinance banks in Kenya as of December 2017. They included Kenya Women, Faulu, Rafiki, SMEP, Caritas, Sumac, Remu, Uwezo, U&I, Century, Daraja, and Choice. As of December 2017, the total gross loan portfolio of the thirteen microfinance banks was Sh52.149 billion, while deposits were Sh38.92 billion, total assets were 67.6 billion, core capital amounted Sh9.5 billion, and a total of 114 branches countrywide. (Banks annual supervisory report 2017)

The first deposit-taking microfinance institution was licensed and became operational in 2009, therefore deposit-taking microfinance institutions have only been in operation for nine years in Kenya. Profitability in this sector is affected by both internal and external factors (Yenesew, 2011). Core capital and liquidity are internal factors that the management of deposit-taking microfinance institutions can control so as to maximize profitability. It's, therefore, crucial to understanding the impact of core capital and liquidity on the profitability of MFB'S in Kenya

1.2 Research Problem

Deposit-taking microfinance institutions core business is mobilizing capital through customer deposits and granting loans to their clients (Omuok, 2015). Core capital is a major source of funds used by financial institutions to fund loans granted to their customers. The higher the core capital held by a financial institution the greater its capability of lending which will lead to higher revenues through interest income and by extension net profits according to (Oyier, 2016). Higher core capital also aids in absorbing negative shocks and risks such as loan defaults, therefore the higher the core capital the more shocks the firm can absorb and vice versa. Liquidity management is essential because it impacts profitability. For instance, low liquidity levels force the financial institution to attract other sources of deposits which are expensive, thus reducing its overall profitability (Miriu, 2011). Brom (2009) observes that Microfinance

institutions with inadequate liquidity might be less immune towards future uncertainty, timely delay of refinancing, disruption in meeting growth projections and increased portfolio at risk.

Between 2014 and 2017, the profitability of MFB'S has been on the decline for instance net profit for the sector were as follows: - 775 million in 2014, 616 million in 2015, and (361) million in 2016, and (470) in 2017. This decline in profitability has hit core capital and liquidity negatively to an extent that some MFB's core capital and liquidity ratios have fallen below the minimum threshold stipulated by CBK of 60 million, and 20% respectively. The CBK through the Microfinance amendment Bill, 2018 has proposed an overhaul of the regulatory and legal framework governing microfinance institutions. The proposal seeks to increase the minimum capital requirements for existing and new MFB's. This proposal also seeks to have a single license for all microfinance banks as opposed to the current license categories for nationwide and community types microfinance banks, This will address the need for resilient and feasible business models, which will ensure capital adequacy given the changes in the microfinance sector (Ngugi, 2018).

Heibati et al (2009) argue that profit is important for a firm's survival and competitiveness. The profitability of microfinance institutions is affected by various internal and external factors (Yenesew, 2011). Studies on core capital, liquidity, and profitability done by various scholars show mixed results. Ngo (2006) researched on the relationship between capital and profitability for the Australian commercial banks and concluded that there existed no statistically significant relationship. Osborne, Fuertes et al (2009) researched the effect of capital on the profitability of the United States commercial banks and established a strong negative correlation. Kiambi (2011) studied the relationship between Core Capital and financial performance of commercial banks in Kenya and concluded that core capital and profitability were linearly correlated. Nyagaka (2013) conducted a research to ascertain how core capital influences the financial performance of commercial banks in Kenya and established a positive linear relationship. Muhammad et al (2016) studied the trade-off between liquidity and profitability of Pakistan's private banks and established a statistically significant relationship using return on assets as the proxy of profitability and a statistically insignificant relationship using return on equity as a measure of profitability. Oyier (2016) explored the relationship between core capital and profitability of commercial banks in Kenya and concluded that core capital and profitability had a strong positive linear relationship, while liquidity and profitability had a weak negative relationship. Miururi (2017) established that liquidity and profitability were positively correlated for commercial banks in Kenya.

The above studies show conflicting conclusions on the relationship between core capital, liquidity, and profitability in the context of commercial banks. There are, however, limited studies in the context of deposit-taking microfinance institutions using recent data. This is the

research gap which this research study intends to fill by answering the question. What is the relationship between the core capital, liquidity, and profitability of MFB in Kenya?

1.3 Research Objective

To establish the relationship between core capital, liquidity, and profitability of deposit-taking microfinance institutions in Kenya.

1.4 Value of the Study

This study shall be of benefit to the finance theory by providing a point of reference and insight to academicians and researchers interested in microfinance sector studies by adding to the existing literature on microfinance institutions, specifically how core capital and liquidity impacts the financial performance of deposit-taking microfinance institutions in Kenya.

This study shall be of benefit to the microfinance industry and microfinance practitioners by enabling them to understand how capitalization and liquidity levels impact profitability. This study will enable them to give due attention to capital, and liquidity management with an objective of maintaining optimal levels that maximize shareholders wealth.

The study will be of benefit to the policymakers in the microfinance sector, like, the Central Bank of Kenya, the Central government, and County governments in understanding the policies and legislation they can put in place to boost the microfinance sector in the country and effectively protect depositor's funds.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses relevant literature on financial performance within the banking system and narrowing to the link between core capital, liquidity, and financial performance of microfinance institutions in Kenya. It also looks at various theories on liquidity and core capital and lastly on empirical studies locally and internationally on the relationship between core capital, liquidity, and profitability.

2.2 Theoretical Reviews

This study will give attention to theories on liquidity, and capital structure. The theories relevant for this study are: - The Anticipated Income Theory, The Liability Management Theory, The Pecking Order Theory, and the Capital Buffer Theory. These theories are discussed below.

2.2.1 The Anticipated Income Theory

This theory was developed by H.V. Prochanow (1944) based on the commercial banks of the United States practice of granting term-loans. According to this theory, the banks plan client's loans repayments based on their anticipated income and not based on the nature and characteristics of their businesses. A term-loan means a loan with a repayment period between one year and less than five years (Muiruri, 2017). Term loans are given against borrower's collaterals like inventory, machinery, and immovable property. The bank puts conditions to the borrower regarding his financial activities when giving the loan. The bank considers the borrower's collaterals and anticipated income when granting the loan to the borrower. The loan granted to the borrower is payable in installments and not as a lump sum.

This theory is important as it meets three important objectives of financial institutions namely safety, liquidity, and profitability. The safety principle is assured through granting of loans based on borrower's collaterals and their ability to repay. Liquidity is assured to the deposit-taking microfinance through regular clients deposits and loans repayments by installments. This theory, however, has some shortcomings in that repayment of loans in installments as opposed to lump sum definitely provides regular liquidity but does not meet the emergency requirements of the banks.

2.2.2 The Liabilities Management Theory

This theory was developed in the 1960s when bank interest rates were highly turbulent. It posits that banks do not need to lend self-liquidating loans or hold liquid assets to maintain their liquidity levels, because they can source for more funds from external investors to satisfy the high demand for credit facilities and deposit withdrawals. This external sources tends to increase the firm's liabilities but improves the liquidity levels and includes channels like an issue of shares, issuing of time certificates, borrowing from central banks or by ploughing back profits (Muiruri, 2017)

The theory is important in this study in that it recognizes other avenues that deposit-taking microfinance banks can utilize to raise funds to enhance their liquidity levels other than customer deposits and loan repayments through installments. For instance, they can raise funds through borrowing from the central bank, issuing new shares issuing time certificate of deposits or by plowing back profits. For this reason, the operations of deposit-taking microfinance institutions (Provision of credit facilities and customer deposits withdrawals) can be guaranteed.

2.2.3 Pecking Order Theory

The proponents of this theory are Mogadilian and Miller (1958), Myers and Majluf (1984) after the findings of Donaldson in (1961) which concluded that management prefers internally generated funds compared to externally generated funds. This theory posits that firms utilize internal funds first, issues debt as a second option and then issue new shares as the last option (Abeywardhana, 2017). Pecking order theory argues that firms first use internal sources of funds then debt and finally the issue of new shares. Firms do not have an optimal debt ratio, hence the firm's debt ratio represents the accumulated external finance requirement. This theory posits that firms that issue less debts are more profitable (Mostafa and Boregowda., 2014)

This theory is important in this study as it underpins the importance of core capital in the capital structure of deposit-taking microfinance institutions. Core capital which comprises of share capital, share premiums, retained earnings and other reserves would to a large extent influence how operations of deposit-taking microfinance institutions are financed. The management would first utilize the available retained earnings, then debt financing and finally, issue new shares. Two components of core capital i.e. retained earnings and issuance of shares would come first and last in the financing options for deposit-taking microfinance institutions which are likely to have some effect on their financial performance.

2.2.4 The Capital Buffer Theory

A capital buffer refers to the mandatory capital banks and other financial institutions are needed to have beyond the minimum stipulated amount. The capital buffer theory argues that financial institutions aims at maintaining higher capital levels than the stipulated levels so as to minimize the procyclical lending nature through creation of countercyclical buffers as spelt out in Basel III (Von Thadden, 2004) Banks and other financial institutions that have low capital buffers strives to increase their buffer capital, while those with high capital buffers aims at maintaining them. Buffers act as shock absorbers hence preventing a financial institution from chances of failure. Banks will increase their capital buffers whenever their portfolio at risk is high and vice versa when their portfolio at risk is low.

This theory is relevant for this study because deposit-taking microfinance institutions are faced with risk such as high portfolio at risk which can ultimately lead to their failure. They can, however, minimize this risk by increasing their buffer capital through either issuance of new shares or by retaining more profits. The capital buffers held by deposit-taking microfinance institutions either in form of retained earnings, share capital, share premiums or other reserves is thus a part of core capital.

2.3 Determinants of MFB Profitability

Deposit-taking microfinance bank refers to a company licensed to operate microfinance business, it includes all branches, marketing units, offices, outlets, and all other business places licensed by the CBK (Microfinance Act 2006). Profit means revenue free of expenses over some time period, usually one year. Profitability is a critical area that deposit-taking microfinance institutions should constantly address so that they can survive and remain competitive (Heibati et al., 2009). Profit in the microfinance sector is a function of various variables that are internal or external to the organization. This is discussed below.

2.3.1 Non-Performing Loans

Non-performing loans are those loans within the loan portfolio that the borrowers have ceased repaying the principal and interest as was originally scheduled. The lender is therefore not able to earn an interest or recover the principal rendered for this loans according to (Mombo, 2013). Also, portfolio at risk accounts for the greatest variance in the profitability of microfinance banks. Portfolio at risk is an important area of performance analysis as the greatest source of risk in financial institutions comes from the loan portfolio. The portfolio at risk for loans that are not secured by bankable collaterals is usually a critical area of analysis for microfinance institutions as they are the greatest source of risk for this institutions. It is therefore important for microfinance institutions to maintain quality portfolios. Portfolio at risk is usually taken as loans whose installments have not been made for over 30 days (Yenesew, 2014). Higher levels of credit risk are generally associated with lower MFI profitability (Miriu, 2011).

2.3.2 Firm Size

Large organizations benefit from economies of scale as they have a lower cost of capital compared to small organizations. Economies of scale are the major reason for mergers and takeovers in the economy. The relationship between size and economies of scale is usually not linear at all stages of organizational growth. This means that diseconomies of scale sets in after a firm attains a certain size. This makes it costly to manage the organization due to complexity, bureaucracy, and inefficiencies (Kinyua, 2013). The size of a microfinance institution can be measured by the total value of its assets (Yenesew, 2014). The size of the deposit-taking microfinance banks is worth analyzing due to economies of scale that firms enjoy as they expand and which also ceases at some level. This consequently affects profitability. For this reason, the relationship between size and financial performance of deposit-taking microfinance banks can be linear or nonlinear depending on their size.

2.3.3 Operational Efficiency

Operational efficiency is a performance measure that indicates how well management has streamlined their operation or how effective they are in deploying resources at their disposal. It simply shows how well the operating expenses have been managed in terms of how much the microfinance bank is spending to maintain a unit of its loan portfolio (Yenesew, 2014). Efficient microfinance institutions use fewer resources to run their operations, which results in increased profitability and vice versa for inefficient microfinance banks. Operating efficiency is measured using the operating expense ratio (OER) which is calculated as operating expenses divided by average loan portfolio. A high operating expense ratio means that the firm is inefficient while a low operating expense ratio shows greater efficiency in its operations. Studies conducted by Muriu (2011) and Yenesew (2014) both concluded that operational efficiency is a significant predictor variable for microfinance profitability.

2.3.4 Yield on Gross Loan Portfolio

Portfolio yield demonstrates the earning potential of a loan portfolio. It measures the income generated by a unit of loan portfolio from interest, fees, and commissions. But does not include any non-cash receipts, collaterals or accrued income (Langat, 2015). The yield on gross loan portfolio gives an indication of the revenue the microfinance bank is able to generate from its loan portfolio to cater for other operational expenses and generate some profit.

Holding other factors constant, a high portfolio yield would lead to higher profitability and vice versa. Research conducted by Langat (2015) on the relationship between profitability growth and gross portfolio of microfinance institutions in Kenya demonstrated that profitability and portfolio yield was positively and significantly correlated. The yield on loan portfolio is calculated as cash financial revenue to the average loan portfolio. Cash financial revenue is the total revenue received from the loan portfolio and includes interest, fees, and commissions.

2.3.5 Real Gross Domestic Product Growth Rate

GDP means the aggregate value of goods and services produced in an economy for a particular period of time, typically a year. It shows the economic health of a country, living standards, and productivity levels. GDP growth rate, on the other hand, shows how fast the economy is expanding from one time period to another. Real GDP growth rates is a major macroeconomic environment indicator and the most informative single factor of economic development.

Low economic growth rate can negatively affect loan portfolio quality leading to an increased default rate and low disbursement of new loans hence reducing profitability. On the other hand, a

positive economic growth leads to a vibrant economy leading to growth of loan portfolio and reduced default rate, which improves microfinance profitability (Miriu, 2011). Positive economic growth is thus expected to exhibit a positive relationship with profitability and vice versa.

2.4 Empirical Review

This section looks at various studies regarding core capital, liquidity, and profitability in the financial institutions. The studies are in both international and local context and are discussed below.

Ngo (2006) conducted a research on endogenous capital and profitability with the aim of investigating the relationship between bank capital, and profitability for commercial banks in Australia. He used secondary data and a sample of 2,500 out of the 37,962 largest banks, according to total assets for the period 1996–2005. Data were analyzed using a two-equation structural model. The study results revealed there was no statistically significant relationship between capital and financial performance for the Australian commercial banks.

Osborne, *et al* (2009) researched on the effect of capital on the financial performance of the United States of America banking industry. Secondary data was extracted from the United States banking sector covering numerous economic cycles from the 1970s to 2010. The study results confirmed there existed a strong negative association between capital and financial performance for Banks that had high capital buffers in both stressed and non-stressed conditions.

Kiambi (2011) explored the link between core capital and profitability of Kenya's commercial banks for a ten years period from 2001 to 2010 using a descriptive research design and linear regression analysis. The study results confirmed that core capital was linearly correlated to profitability as measured using return on equity across all the three tiers of banks, tier group one, tier group two and tier group three used in the study. The study concluded that core capital was not a major determinant of profitability across all the three tiers of the banks, which was evidenced by weak values of both correlation coefficient and coefficient of determination.

Nyagaka (2013) evaluated the influence of core capital on the profitability of Kenya's commercial banks. His exploratory study included all the 43 commercial banks in operation for the year 2012. The study results showed that core capital and profitability of Kenya's commercial banks is positive and linearly correlated. The study also established that 20% of the profitability of commercial banks is affected by the core capital.

Pastory and Marobhe (2015) sought to establish the external and internal determinants of Tanzanian's commercial bank's profitability by use of panel data analysis. Data were drawn from secondary sources from eighteen commercial banks covering eleven years from 2000-2011.

Multiple regression analysis and Camel model were used to assess the level of profitability for the commercial banks. The study findings showed that liquidity, capital adequacy, and asset quality are important determinants of Tanzanian's commercial bank's profitability.

Kalanidis (2016) investigated how liquidity impacts profitability for the European banking industry. Fifty largest commercial banks in terms of assets in Europe were used for this study. Secondary data for seven years from 2009 and 2015 was used. Two macroeconomic variables and seven bank-specific variables were used as independent variables. Profitability was measured through Return on assets, Return on equity, Net interest margin, and pre-tax profits. From the results, capital and profitability were positively correlated while liquidity showed a negative relationship with profitability. It was observed that banks should use their capital reserves (Core capital) in maintaining their liquidity levels and mitigating credit risk for their investments.

Muhammad et a*l* (2016) targeted Pakistan's private banks to observe the influence of liquidity on financial performance using a descriptive research design. Secondary data drawn from twenty-two private banks for a period of 5 years (2009-2013) was used and analyzed by use of the ordinary least square technique. The study results showed a   statistically significant relationship between bank liquidity and profitability. However, when the return on equity, (ROE) and return on investment (ROI) were used as the measures of financial performance the relationship became statistically insignificant.

Oyier (2016) aimed to establish the effect of core capital on the profitability of commercial banks in Kenya using a descriptive research design and a sample comprising of 33 banks for the period between January 2011 and December 2015. The study results showed that core capital and profitability had a strong positive linear relationship. Liquidity, solvency margin and profitability had a weak positive linear relationship. While size and profitability showed a weak negative relationship. It was also revealed that 42.8% of the profitability of commercial banks in Kenya was determined by Core capital, liquidity, solvency margin, and size. Is was thus concluded that Core capital, liquidity, solvency margin, and size were major determinants of commercial banks profitability in Kenya.

Muiruri (2017) researched on the influence of liquidity on profitability of Kenya's commercial banks using a descriptive research design and linear regression analysis with a sample of 35 commercial banks. Seven years data from 2011 to 2016 was used. The study findings revealed a positive linear relationship between liquidity and profitability variables over the six years of study.

Muli (2017) researched on the relationship between core capital and profitability of Kenya's commercial banks using a descriptive research design and multiple linear regression analysis. A

sample of 38 commercial banks was used and secondary data for 9 years from 2009 to 2016. The study results showed that core capital and bank size had a significant positive relationship, while liquidity had a negative and statistically insignificant relationship.

2.5 Conceptual Framework

Based on the empirical and theoretical studies and results discussed a theoretical relationship exists between core capital, liquidity, Operational efficiency, and profitability. Profitability as measured using return on assets (ROA), will be the outcome variable. While core capital, liquidity and operational efficiency will be the predictor variables for this study.
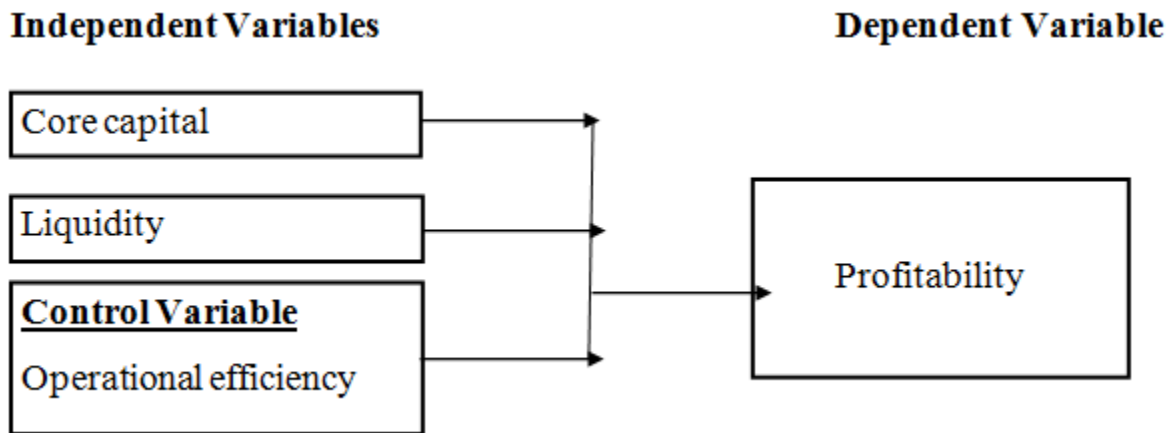
Independent Variables   **Dependent Variable**

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┌─────────────────────┐
│ Core capital        │──────────────┐
└─────────────────────┘              │
                                     ▼         ┌──────────────────┐
┌─────────────────────┐              │         │                  │
│ Liquidity           │──────────────┤         │  Profitability   │
└─────────────────────┘              │         │                  │
┌─────────────────────┐              │         └──────────────────┘
│ Control Variable    │              │
│ Operational efficiency │───────────┘
└─────────────────────┘
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Figure 2.1: Conceptual Framework

Source: Researcher 2018

2.6 Summary of the Literature Review and Research Gap

Review of literature, both empirical and theoretical show mixed results on the relationship between capital, liquidity, and profitability. For instance in Kenya Muli (2017), Oyier (2016), and Nyagaka (2012) established a positive linear relationship between core capital & profitability. Internationally, Ngo (2006) found statistically insignificant relationship between capital and profitability in Australia. While Kalanidis (2016), and Pastory and Marobhe (2015) found a significant positive linear relationship between capital & profitability in Europe and Tanzania respectively. The objective of this research, therefore, will be to explore the relationship between core capital, liquidity, and profitability of deposit-taking microfinance institutions in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the research methodology for this study. Areas to be covered includes research design, population, sampling technique and sample size, data collection methods, data analysis, analytical model, the operationalization of the study variables, data analysis, and diagnostic tests.

3.2 Research Design

A descriptive research design was chosen for this research as it shows in detail the link between core capital, liquidity, and profitability for the deposit-taking microfinance institution in Kenya. Cooper & Schindler (2011) defines descriptive studies as those studies that aim at explaining a situation, estimating a population proportion with the same characteristics, and discovering association among variables

3.3 Population of the Study

The population consisted of the thirteen deposit-taking microfinance institutions in operation in Kenya as at 31st December 2017 (Appendix 1).

3.4 Sampling Technique and Sample Size

The sampling technique used for this study was purposive/judgmental sampling. This technique was preferred because it is convenient, time-saving, low cost, and it also enabled the selection of only those deposit-taking microfinance institutions that had complete data sets for all the five years under study. The sample size for this study was nine deposit-taking microfinance institutions that were in operation for five years from 2013-2017.

3.4 Data Collection

Secondary data sources in form of annual audited financial statements summarized in the CBK, Bank's supervision annual reports extracted from CBK website were used. The bank's supervision annual report comprises of balance sheets, income statements and disclosure information for all the deposit-taking microfinance institutions. It is from this financial statements that data on the variables being studied (Core capital, liquidity, Operational efficiency, and profitability) was directly obtained or computed from the available data.

3.5 Data Analysis

Quantitatively, the information was presented using tables and graphs. Multiple linear regression analysis was used to establish the link between the dependent variable (Profitability) and the three explanatory variables (Core capital, liquidity, and Operational efficiency).

Pearson correlation coefficient (r) was used to determine and measure the strength and direction of the relationship between the outcome variable and each of the explanatory variables. The coefficient of determination (R^2) was used to measure the overall strength of the model i.e. to what extent the selected predictor variables influence the outcome variable.

3.5.1 Analytical Model

The applied regression model was of the form shown below:

$$Y = K + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

Y = Profitability as measured by Return on Assets (ROA)
K = Y-Intercept

X_1 = Core capital as measured by core capital to total risk-weighted assets

X_2 = Liquidity as measured by Current ratio.

X_3 = Operational efficiency as measured by the operating expenses ratio (OER)

e = Error term

β_1, β_2, β_3, are constants (Slopes of the independent variables)

3.5.2 Test of Significance

The coefficient of determination R^2 and p-value were used to test for the level of significance. ANOVA was also used to examine the relationship between core capital, liquidity, and profitability. Testing was done at 95% confidence intervals.

3.6 Operationalization of the Study Variables

This section highlights the measurements that were used to operationalize the study variables

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Table 3.1: Operationalization of the Study Variables

	Variable	Measurement
Y	Profitability	Return on assets (ROA) computed as net income to total assets.
X_1	Core capital	Core capital to total weighted assets
X_2	Liquidity	Current ratio. Computed as current assets to current liabilities.
X_3	Operational efficiency	Operational expense ratio (OER) calculated as Total operational expenses divided by the total loan portfolio.

Source: Researcher 2018

3.7 Diagnostic Tests

To ensure that the data fulfilled the basic linear regression equation basic assumptions, various diagnostic tests were carried out. Descriptive statistics i.e. kurtosis and skewness of data distribution were used to test for normality. The correlation between independent variables (Multicollinearity) was tested using the variance inflation factors and the Pearson correlation coefficient (r). Durbin Watson test was used to test for autocorrelation between the study variables.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter covers data analysis, results, and findings, as per the research methodology, the sample size comprised of thirteen microfinance institutions and covered a five year period from 2013-2017. Data were obtained from secondary sources in the form of audited financial statements summarized in the Central bank of Kenya Banks annual supervisory reports and was evaluated through multiple linear regression analysis.

4.2 Response Rate

The population for this study consisted of all the thirteen deposit-taking microfinance institutions in operation as at 31st December 2017. Four deposit-taking microfinance institutions were not included as they were not operational for all the five years under study (2013-2017). Data was therefore gotten from nine firms which represented sixty-nine percent of the total deposit-taking microfinance institutions in Kenya. This was deemed sufficient to draw a conclusion from since the nine firms represented over 96% of the total market share (CBK 2017).

4.3 Descriptive Statistics

Table 4.1: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ROA	45	.307	-.269	.038	-.02418	.067204	-2.286	.354	4.875	.695
CORE CAPITAL RATIO	45	3.250	-.150	3.100	.46218	.508501	3.491	.354	16.318	.695
CURRENT RATIO	45	2.080	.090	2.170	.38849	.329468	3.987	.354	19.717	.695
OER	45	.737	.225	.962	.39446	.165758	2.192	.354	4.767	.695
Valid N (list wise)	45									

Source: Researcher 2018

From table 4.1 above, the mean for profitability as measured by return on assets (ROA) was -2.418% for the deposit-taking microfinance institutions researched, this means MFB's have a negative return on assets (ROA) for the period of study with a maximum of 3.8%, a standard

deviation of 6.72% and a range of 30.7% which implies that profitability for MFB's vary significantly.

The mean for core capital to weighted assets ratio was 46.218% which implies that on average core capital covered 46.218% of the risk of insolvency for MFB's with a maximum of 310%, a standard deviation of 50.85%, a range of 325% and a minimum of -150%. This means that core capital varies widely for MFB hence influences profitability to some extent.

The mean for liquidity as measured by current ratio was 38.85% which means that MFB's current ratio is slightly above 33% and are thus capable of settling their obligations as and when they fall due. They have a maximum current ratio of 217%, a minimum of 9%, a standard deviation of 32.9% and a range of 208%. This implies that liquidity vary significantly for MFB's

Operating expense ratio had a mean of 39.44% which means that on average MFB's operating expenses are 39.44% of their average loan portfolio. Operating expense ratio has a standard deviation of 16.57%, a maximum of 96.2%, a minimum of 22.5%, and a range of 73.7%. This wide disparity means that operational efficiency accounts for the greatest variance of MFB's profitability.

4.5 Correlation Analysis

Pearson correlation was used to find the association of the four variables of the study i.e. core capital, liquidity, operational efficiency, and profitability.

Table 4.2: Correlation Analysis

		ROA	CORE CAPITAL	LIQUIDITY	OER
ROA	Pearson Correlation	1	.191	.122	-.902[**]
	Sig. (2-tailed)		.210	.424	.000
	N	45	45	45	45
CORE CAPITAL	Pearson Correlation	.191	1	.454[**]	-.042
	Sig. (2-tailed)	.210		.002	.784
	N	45	45	45	45
LIQUIDITY	Pearson Correlation	.122	.454[**]	1	-.021
	Sig. (2-tailed)	.424	.002		.893

	N	45	45	45	45
OER	Pearson Correlation	-.902**	-.042	-.021	1
	Sig. (2-tailed)	.000	.784	.893	
	N	45	45	45	45

Source: Researcher 2018

From table 4.2 above, core capital, and liquidity were positively but weakly correlated with profitability with a Pearson correlation of +0.191 and +0.122 respectively, while operational efficiency had a strong negative correlation with profitability, with a Pearson correlation of -0.902. Core capital and liquidity were not significant determinants of profitability with a p-value of 0.210 and 0.424 which was above the threshold of 0.01. However, the correlation between operational efficiency and profitability was significant with a p-value of less than 0.001.

4.5 Diagnostic Tests

Normality of data distribution was tested using skewness and kurtosis. From table 4.1 above, return on assets (ROA) was skewed to the left (Negatively skewed), while core capital, liquidity, and operational expenses were positively skewed. While, core capital, liquidity, operational efficiency, and profitability have positive kurtosis values meaning that the data is peaked (leptokurtic). This implies that the data on all the study variables were not normally distributed.

Autocorrelation between the study variables was tested using the Durbin Watson test. From table 4.4 below, Durbin Watson was 2.072, which implied that there was no autocorrelation between the study variables as the observed value of 2.072 was very close to 2.0. Multicollinearity between independent variables was tested using the variance inflation factor (VIF). From Table 4.3 below the independent variables did not have collinearity issues since the variance inflation factors were less than 3 for all the variables.

Table 4.3: Collinearity Diagnostics

Coefficients [a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	LIQUIDITY	1.000	1.000
	OER	1.000	1.000

a. Dependent Variable: CORE CAPITAL

Coefficients [a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	CORE CAPITAL	.998	1.002
	OER	.998	1.002

a. Dependent Variable: LIQUIDITY

Coefficients [a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	CORE CAPITAL	.794	1.260
	LIQUIDITY	.794	1.260

a. Dependent Variable: OER

Source: Researcher 2018

4.5 Regression Analysis

The regression model used was of the form;

$$Y = K + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

Y = Profitability as measured by Return on Assets (ROA)

K = Y-Intercept

X_1 = Core capital as measured by core capital to total risk-weighted assets

X_2 = Liquidity as measured by Current ratio.

X_3 = Operational efficiency as measured by the operating expenses ratio (OER)

e = Error term

β_1, β_2, β_3, are constants (Slopes of the independent variables)

Table 4.4: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.916[a]	.839	.827	.027955	.839	71.094	3	41	.000	2.072

a. Predictors: (Constant), Core Capital, Liquidity, Operational Efficiency

b. Dependent Variable: Profitability (ROA)

Source: Researcher (2018)

The coefficient of determination R^2 for the study regression model was 0.839, implying that 83.9% of the variation in profitability of deposit-taking microfinance institutions was explained by the three predictor variables i.e. core capital, liquidity, and operational efficiency. On the other hand, 16.1% of MFB's profitability was influenced by factors not discussed in this study.

The Pearson correlation coefficient (R) for the study was 0.916 or 91.6%. This means there is a significant positive relationship between profitability, core capital, liquidity, and operational efficiency. The p-value for the model was less than 0.01 (p<0.01) this indicates that the model was significant at a 5% significance level.

Table 4.5: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.167	3	.056	71.094	.000[b]
	Residual	.032	41	.001		
	Total	.199	44			

a. Dependent Variable: Profitability (ROA)
b. Predictors: (Constant), Core Capital, Liquidity, Operational Efficiency

Source: Researcher (2018)

The overall regression model was significant, $F(3, 41) = 71.1$, $p < 0.001$, $R^2 = 0.839$. The three independent variables accounts for 83.9% variation in profitability for deposit-taking microfinance institutions.
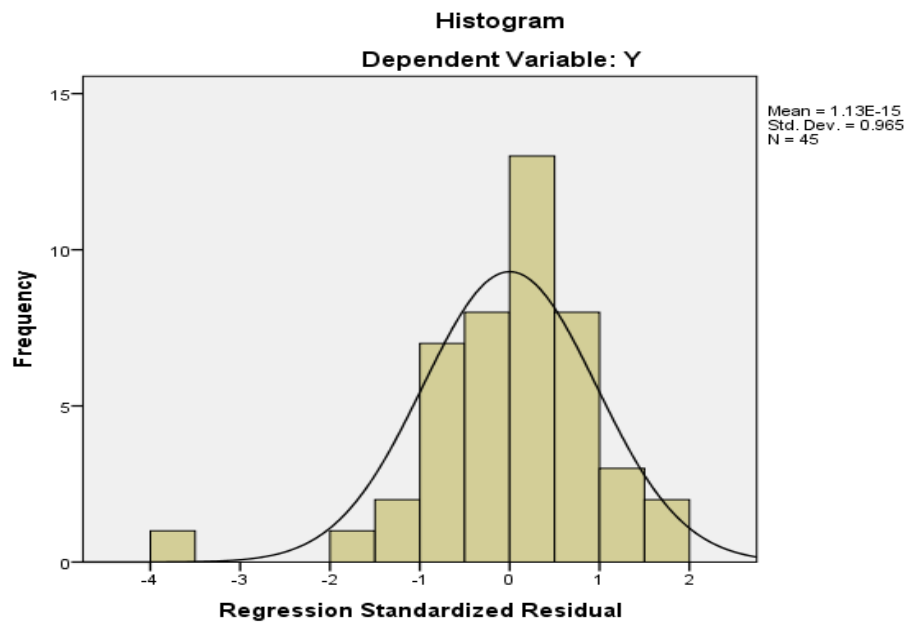
Table 4.6: Regression Coefficient Results

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1 (Constant)	.108	.012		8.797	.000	.083	.132
CORE CAPITAL	.018	.009	.134	1.897	.065	-.001	.036
LIQUIDITY	.009	.014	.043	.608	.547	-.020	.038
OER	-.363	.025	-.896	-14.270	.000	-.415	-.312

a. Dependent Variable: Profitability (ROA). **Source: researcher 2018**

From table 4.6 above core capital, and liquidity have positive coefficients of 0.018 and 0.009 respectively, while operational efficiency has a negative coefficient of -0.363. This means that core capital and liquidity have a positive association with profitability, while operational efficiency has a negative association with profitability. An increase in core capital ratio and the current ratio by one percent would result in an increase in profitability (ROA) by 1.8% and 0.9% respectively. On the other hand, an increase in an operational expenses ratio by one percent would cause profitability (ROA) to decrease by 36.6 %. The constant (Y-intercept) is 0.108, this means that when core capital, liquidity, and operational efficiency are zero, profitability (ROA) will be 0.108. From the values in table 4.6 above the deriving regression equation model was as below.

$ROA = 0.108 + 0.018X_1 + 0.009X_2 - 0.36X_3$

Source: Researcher 2018

The histogram in figure 4.1 above shows close to a normal distribution. This was an indication that there were no normality issues with the data.
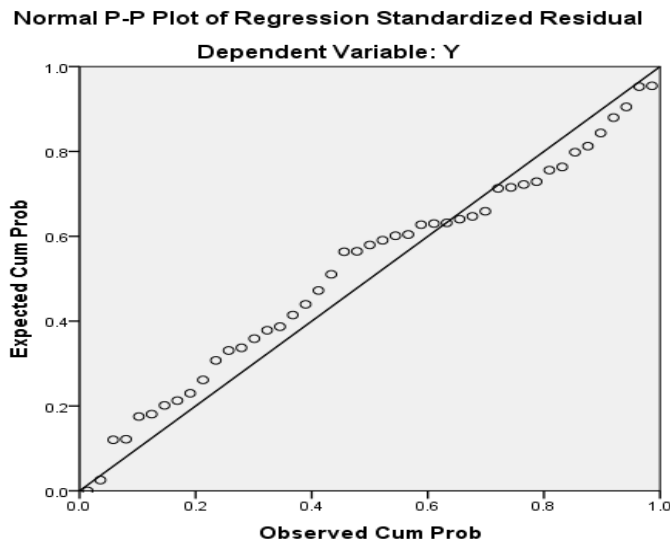

Figure 4.1: Normal P-P Plot of Regression Standardized Residual

Source: Researcher 2018

From figure 4.2 above most of the data, plots are close to the 45^0 line, this means that the data is normally distributed.

4.6 Interpretation of Findings

From the above analysis and results, there exists a weak positive linear relationship between core capital, liquidity, and profitability and a strong negative linear relationship between operational efficiency and profitability. The research findings of this study are in agreement with other empirical studies such as, Oyier (2016) who established a strong positive correlation between core capital and profitability of commercial banks in Kenya, and Miururi (2017) who established a positive correlation between liquidity and profitability of Kenya's commercial banks.

The study findings also contrasted with other empirical studies, such as Kalanidis (2016) who established that liquidity was negatively correlated with the profitability of the European commercial banks, Ngo (2006) who found statistically insignificant relationship between capital and profitability of commercial banks in Australia

CHAPTER FIVE: SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter covers the study findings in summary as indicated in chapter four, conclusion, recommendations, and limitations of the study and concludes with suggestions for further research.

5.2 Summary of Findings

The aim of this study was to look at the link between core capital, liquidity, and profitability of MFB's by employing a descriptive research design and secondary data for a five year period from (2013-2017). From the descriptive statistics, profitability, as measured by return on assets (ROA), had a mean of -2.418 and a standard deviation of 6.7% which means that, MFB'S had a negative return on assets and that there is a big variation in their profitability.

From the correlation analysis, core capital, and liquidity were positively correlated with profitability but were not significant determinants of MFB's profitability. Operational efficiency was significantly and negatively correlated with profitability. Pearson correlation coefficient (R) for the study was 0.91 meaning there's a strong positive correlation between profitability, core capital, liquidity, and operational efficiency. The coefficient of determination R^2 for the study was 0.839, meaning that the three predictor variables explained 83.9% variation in profitability. The Durbin Watson value was 2.072 meaning that, there was no autocorrelation between the

study variables. The regression equation developed from the findings of the study that estimates profitability is as shown below:

ROA (Y) = 0.108+0.018X_1+0.009X_2-0.36X_3

5.3 Conclusions

From the research findings, core capital, and liquidity has been confirmed to be positively correlated with profitability. This suggests that an increase in core capital through either plowing back profits (Retained earnings) or issue of more shares will effectively increase profitability. An increase in liquidity ratio through timely loan repayments, borrowing, or injection of additional capital through an issue of shares will increase profitability. Operational efficiency is negatively correlated with profitability, which implies that an increase in operational expenses decreases profitability.

5.4 Recommendations

The study results concluded that core capital, liquidity and operational efficiency are major determinants of deposit-taking microfinance institutions profitability because they jointly explain 83.9% of MFB's variation in profitability. For this reason, the management of MFB's should give more attention to liquidity management, capitalization and operating cost management in order to maximize profitability as well as shareholders wealth.

The regulator, CBK, should also put stringent measures to ensure DTM's are adequately capitalized so as to ensure their robust growth and effectively protect depositor's funds. It would be prudent for CBK to revise core capital upwards so as to ensure all MFB's are adequately capitalized. Some DTM's have however operated at a loss in the recent years which have made them have negative core capital, the CBK should be particularly keen on this institution's and ensure they are well capitalized.

5.5 Limitations of the Study

Lack of published financial statements for all the deposit-taking microfinance institutions. This is because they were licensed and became operational after 2013 hence they were not in operation for all the five years under study i.e. (2013-2017). this reduced the sample size to nine firms, four firms were thus not included in the study.

There were limited studies on core capital and liquidity in the context of deposit-taking microfinance institutions. Most of the studies were in the context of commercial banks. The economic, legal and regulatory environments are also different for developed and developing

countries, hence the results of this study are not comparable with the empirical evidence from the international arena because our level of economic development is different.

5.6 Suggestions for Further Study

This research can be replicated in other sectors of the economy like non-deposit taking microfinance institutions, agricultural sector, and the manufacturing sector to examine the connection between core capital, liquidity, and financial performance. This research can also be simulated in other countries with vibrant microfinance sector to determine if the study results will be significantly different in those countries. This study can also be repeated using primary data sources for example questionnaires and interviews so as to capture more detailed information from the microfinance practitioners. On the other hand, the study could be repeated using different proxies for profitability like return on equity (ROE) as well as other measures for liquidity such as excess deficiency ratio.

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APPENDICES

APPENDIX 1: LIST OF MFB IN KENYA AS AT 31ST DECEMBER 2017
LARGE MFB
1. Kenya women MFB
2. Faulu MFB
3. Rafiki MFB

MEDIUM MFB
4. SMEP MFB
5. Caritas MFB
6. Sumac MFB

SMALL MFB
7. Remu MFB
8. I & U MFB
9. Uwezo MFB
10. Daraja MFB
11. Maisha MFB

12. Century MFB
13. Choice MFB

Source: Central Bank of Kenya: Banks supervision annual report 2017

APPENDIX II: SECONDARY DATA

MFB	YEAR	ROA	CORE CAPITAL/WEIGHTED ASSETS	CURRENT RATIO	OPERATING EXPENSE RATIO
KWFT	2017	0.001	0.210	0.290	0.289
	2016	0.007	0.200	0.280	0.277
	2015	0.012	0.190	0.280	0.298
	2014	0.018	0.210	0.240	0.317
	2013	0.018	0.158	0.270	0.329
FAULU	2017	0.006	0.180	0.260	0.225
	2016	0.002	0.190	0.300	0.251
	2015	0.005	0.200	0.310	0.252
	2014	0.020	0.210	0.240	0.270
	2013	0.015	0.050	0.230	0.279
RAFIKI	2017	-0.049	0.090	0.190	0.350
	2016	-0.041	0.150	0.120	0.390
	2015	0.004	0.180	0.530	0.320
	2014	0.004	0.210	0.350	0.325
	2013	0.002	0.180	0.420	0.386
SMEP	2017	-0.012	0.120	0.230	0.367
	2016	-0.050	0.180	0.300	0.389
	2015	0.000	0.290	0.240	0.348
	2014	-0.041	0.300	0.290	0.425
	2013	0.019	0.390	0.260	0.323
SUMAC	2017	0.004	0.270	0.600	0.288
	2016	0.017	0.330	0.290	0.297
	2015	0.012	0.360	0.400	0.280
	2014	0.010	0.510	0.270	0.389
	2013	-0.036	0.610	0.210	0.397
REMU	2017	-0.048	0.440	0.540	0.372
	2016	-0.033	0.560	0.360	0.351
	2015	-0.038	0.580	0.400	0.440
	2014	0.008	0.790	0.810	0.377
	2013	-0.018	0.600	0.670	0.437

	YEAR	ROA	CORE CAPITAL/WEIGHTED ASSETS	CURRENT RATIO	OPERATING EXPENSE RATIO
	2017	0.027	0.500	0.210	0.268
	2016	0.020	0.580	0.270	0.242
U & I	2015	0.038	0.790	0.280	0.265
	2014	0.015	1.450	0.570	0.383
	2013	0.013	3.100	0.634	0.389
MFB	YEAR	ROA	CORE CAPITAL/WEIGHTED ASSETS	CURRENT RATIO	OPERATING EXPENSE RATIO
	2017	-0.042	0.910	1.080	0.419
	2016	0.019	0.840	0.490	0.427
UWEZO	2015	0.001	1.250	2.170	0.432
	2014	0.006	0.530	0.150	0.354
	2013	-0.019	0.660	0.250	0.486
	2017	-0.219	-0.150	0.269	0.962
	2016	-0.182	0.140	0.090	0.935
CENTURY	2015	-0.269	0.276	0.334	0.762
	2014	-0.147	0.384	0.261	0.751
	2013	-0.165	0.600	0.244	0.634

Source: Central Bank of Kenya: Banks supervision annual report 2017, 2016, 2015, 2014, 2013