

**FINANCIAL MANAGEMENT PRACTICES AND FINANCIAL
PERFORMANCE OF MICROFINANCE BANKS IN KENYA**

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DECLARATION

This project is my original work and has not been presented for the award of a Master's Degree in any other university or for any other award.

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This research project was primed by the student under my guidance and submitted with my consent as the University Supervisor.

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DEDICATION

This research project is dedicated to my beloved husband Peter Ndwiga Kimu and our children Mcdowell, Rogers, Lynnette, and Craig for their undying support. The journey has been challenging, but their great encouragement has given me the strength to complete the project. I thank them all.

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ABBREVIATIONS AND ACRONYMS

ALM	Asset and Liability Management
ASCAs	Accumulating Savings and Credit Associations
CAMELS	Capital Adequacy, Asset Quality, Management, Earnings, Liquidity and Sensitivity
CBK	Central Bank of Kenya
CGAP	Consultative Group to Assist the Poor
EBIT	Earnings before Interest and Tax
EPS	Earnings per Share
FSS	Financial Self Sufficiency
KWFT	Kenya Women Finance Trust
MFB	Microfinance Bank
MFI	Microfinance Institution
NACOSTI	National Commission for Science, Technology and Innovation
NGOs	Non-Governmental Organizations
NSE	Nairobi Securities Exchange
ROA	Returns of Assets
ROCE	Return on Capital Employed
ROE	Return on Equity

ROI	Return on Investment
ROSCAs	Rotating Savings and Credit Associations
SACCOS	Savings and Credit Co-operative Societies
SMEP	Small and Medium Enterprises Programme
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for the Social Sciences

OPERATIONAL DEFINITION OF TERMS

Asset and Liability Management

It is the manner in which a firm manages its assets and cash flows efficiently to avoid the loss that comes with the late payment of a liability.

Board Characteristics

These are features that are looked at in trying to build a strong governance system in a company in order to protect the shareholder's wealth and improve the general performance of the firm.

Credit Default Risk

It is the risk that the borrower exposes to the lender as a result of not making their liability commitment.

Financial Management

It involves the processes, systems, internal controls, and practices relating to the way MFBs manage revenues, expenses, assets, liabilities, and contingencies.

Financial Management Practices

They are a set of constructs or methods developed for carrying out accounting, reporting, budgeting, and other business finance activities and used as trajectories for understanding the financial performance of any institution.

Financial Performance

It is a gauge of the financial well-being of a company as a result of effective and efficient use of the company's assets from which incomes are created. It is the instrument that helps investors and analysts to visualize the performance of equivalent organizations as a matter of comparison to make sound financial decisions.

Financing Mix

It is the mode through which an organization is financed with a mix of debt and equity capital.

Firm size

It is an aspect that is characterized by total sales, total assets, number of employees, and market capitalization, among other characteristics.

Microfinance Bank

It is any financial company that is licensed by the Central Bank of its relevant country to offer financial services such as savings and deposits, domestic funds transfer, loan issues and other non-financial services to low income clients who cannot access conventional banks.

Return on Assets

A percentage proportion that rationalizes the level of usage of a firm's assets to earn returns. A higher ratio directs to an advanced financial performance of a company.

Quick Ratio/Acid Test Ratio

It is a liquidity ratio that shows the capacity of an organization to offset its short-term liabilities through the assets that can easily be transformed into cash on emergency.

ABSTRACT

The financial management of microfinance banks in Kenya remains one of the critical issues in the sector, considering its contribution to the economy. Thus, financial management practices are essential in shaping the financial performance of the microfinance banks. In the recent past, the microfinance banks have continued registering an unstable financial performance, evidenced in their annual audited reports even when they have been practicing several financial management practices. Empirical evidence on financial performance and financial management practices of microfinance banks have documented mixed results. This study sought to determine the effect of board characteristics, financing mix, credit default management, and assets and liabilities management practices on financial performance of microfinance banks in Kenya. The study tested hypotheses at 0.05 significance level. The theories and models adopted were: agency theory, pecking order theory, credit default model, shift-ability theory, and financial outcome model. The study employed explanatory research design. The target population was 13 microfinance banks in Kenya, hence a census survey. The study collected secondary data using a document review guide. The data sources were: published financial statements of each microfinance bank and bank supervision reports from Central Bank of Kenya. The time scope was five years from year 2015 to year 2019. Diagnostic testing to ensure data was valid included multicollinearity, normality and heteroscedasticity tests. The data was analyzed using descriptive statistics, Pearson's correlation, and panel regression analysis. The data was presented using tables, graphs and figures. Adherence to ethical standards and requirements was observed. The results showed that board characteristics had a negative and significant effect on financial performance ($\beta = -0.827$. $p = 0.012$); financing mix had a positive and significant result on financial performance ($\beta = 0.516$. $p = 0.014$); credit default management had a positive but insignificant effect on financial performance ($\beta = 0.066$. $p = 0.009$); while asset and liability management had a positive and significant influence on financial performance ($\beta = 0.216$, $p = 0.004$). The study recommends that firms must form a management team with gender diversity features and they should strive to fund their investment operations using retained profits first, with debt as a last resort, since this is compatible with the pecking order principle, which asserts that funding sources are prioritized. To boost their performance, banks' management must maintain high levels of net income, thus, aim at increasing earnings before taxes and interests while keeping their loan interest rates on check to ensure that credit default risk is minimized. The microfinance banks are also recommended to come up with relevant applicable policies governing their managerial boards, financial issues, credit and asset and liabilities for efficiency and effectiveness in their running.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Microfinance has a substantial role in fixing the gap between formal monetary institutions and the rural poor, including low-income households, entrepreneurs, and emerging businesses, by providing them with much-needed financial services such as small loans, payment services, insurance, deposits, and money transfers (Teeboom, 2019). The poor are considered non-eligible to be served by commercial banks due to lack of collaterals, employment, lack of credit history, and generation of income which are the minimum requirements of the traditional banks (Maneem, 2004). Microfinance banks in Kenya intend to heighten service delivery to their customers and be the best option in extending small loans to most Kenyans. Thus, the financial institutions have undergone substantial advances since the mid-90s (Aswani, 2019).

There are 13 registered and regularized microfinance banks in Kenya with a total asset base of about Kshs.16.5 billion and deposits of around Kshs.40.2 billion by December 2018 (Central Bank of Kenya, 2019). Convergences (2019) shows that by 2016, Microfinance banks had attained 132 million low-income earning members who have a loan portfolio worth \$102 billion. Although microfinance banks have upgraded the living standards of the majority of Kenyans through facilitation and

expansion of their economic activities, evidence has shown that the microfinance banks started experiencing financial performance challenges in the year 2016. In the 2017/2018 financial year, the registered Microfinance Banks recorded a four hundred and fifty percent rise in reported loss of around Kenyan shillings 935.1 million up to June, 2018 in comparison to the loss of Kenyan shillings 171.4 million up to the end of June, 2017. Customer deposits lessened by five percent from Kenya shillings 40.6 billion to Kenya shillings. 38.5 billion between June, 2017 and June, 2018. The MFBs' basic capital to risk-weighted assets ratio lessened from twenty percent according to the financial reports drafted in June 2017 to eighteen percent in June 2018. This took place within one year. (Central Bank of Kenya, 2019).

Financial management of microfinance banks remains one of the critical issues in the sector, and as such, financial management practices are essential in determining the financial performance of MFBs (Mabonga, Kimani & Maina, 2017). Sound financial management practices have economic benefits and provide long-term direction and stability to microfinance banks' operations (Eugene & Joel, 2009). On the other hand, Rahaman (2010) postulates that the management of MFBs must be vigilant in adopting financial management practices to be at a competitive edge with their rivals. Board characteristics are one of the corporate governance aspects that determines the performance of an

organization. Ees, Postma & Sterken (2003) postulate that the corporate board has three key roles: strategic decision making, the link between the organization and its shareholders, and internal governance and monitoring roles. The board of directors' capacity to achieve these roles largely depends on its characteristics (Gouiaa & Zeghal, 2014).

Financing mix refers to the mode by which an organization is financed using debt and equity mix. This mix shows how much debt microfinance bank is financed with compared to financing from the owners' funds (equity) (Nduka *et al.*, 2016). Therefore, MFBs must have informed financing decisions when making choices between debt and equity, affecting their financial performance (Salman & Munir, 2012). The most significant risks from microfinance's perspective are credit default risk. It can lead to severe hurting of the firm's liquidity, which is considered its heartbeat if it has to sustain its ability to issue loans to the customers (Setargie, 2013).

Furthermore, MFBs may acquire assets through various investment vehicles, and management of these assets is of paramount importance. Inasmuch as they will consider the asset side of the financial balance sheet, they should equally have a rigorous examination on the financial balance sheet's liability side, having expanded their funding sources. This will minimize and manage financial risks (Karla, 2009). Microfinance banks have faced myriads of challenges such as

competition and rapid changes in the business environment, financial instability, uncontrolled growth, management challenges, credit rating issues, and political and economic instability (Aswani, 2019). This makes it hard for them to sustain their success in the future. Thus, the microfinance sector is attributed to a significant role in reducing poverty and economic growth and development. Therefore, microfinance Banks need to operate in effectiveness and efficiency (Xu & Liu, 2019).

1.1.1 Financial Management Practices

Turyahebwa *et al.* (2013) describe financial management practices as a set of constructs or methods developed to carry out accounting, reporting, budgeting, and other business finance activities and are used as trajectories for understanding the financial performance of any institution. Kamande (2015) contends that various practices on financial management are crucial in the control of institutions. Therefore, this research aims to establish the effect of board features, financing mix, credit default risk management, and the management practices of liability and assets on microfinance banks' financial performance.

Board characteristics are features that are looked at in trying to build a strong governance system in a company in order to protect the shareholder's wealth and improve the general performance of the firm (Francis *et al.*, 2012). According to Ees, Postma, and Sterken (2003), corporate boards have three critical roles of

strategic decision-making: a link between the organization and shareholders and the role of internal governance, and one-to-one observation surveillance. The capacity of the board of directors in achieving these roles largely depends on its characteristics. The board composition is one of the board's characteristics that elaborate non-executive directors' part to executive directors (Sandada, Manzanga & Shamhuyenzwa, 2015). This proportion is vital so that none of the individuals' categories can dominate the board's policymaking (Borlea, Achim & Mare, 2017).

Non-executive directors can be defined as independent directors from outside and look into and safeguard the bondholders' comforts (Lawal, 2012). Their presence in a more significant proportion compared to the executive is attributed to better governance (Fama, 1980). On the other hand, executive directors are inside directors well acquainted with the organization and are thus engaged in running their daily activities (Lawal, 2012). However, inside directors are associated with causing conflicts between themselves and shareholders due to putting their interests before those of the shareholders. Thus, the importance of an independent composition of board directorate.

Gender diversity is another board characteristic that examines male to female ratio who occupy board member positions in corporate boards of directors. According to Wikipedia.org, men occupy more seats than women worldwide, and

this imbalance is explained by the fact that women lack the required qualifications. Ruigrok *et al.* (2007) show the benefit of having a woman director on a board in that she brings valuable skill, knowledge as well as different norms and understanding. In research done in Europe and Asia, the importance of a committee consisting of a certain percentage of women shows more excellent attendance of meetings and greater monitoring of financial and employee performances and productivity. Female directors are also attributed to a greater diversity of ideas. Tan and AuYong (2017) consider that gender varied board can uplift a firm to a more superior position in a similar business sector, consequently improving its performance. Kodelja (2016) stipulates that gender imbalance can be curbed through the principles of equality of opportunity and equality of outcome. Equality of opportunity requires the treatment of every gender with the same opportunity in order to acquire what they desire. In contrast, the equality of outcome requires every gender to possess an equal share of results such as positions.

The financing mix is also called capital structure, and it refers to the mode through which an organization is financed, with a combination of debt and equity (Nduka *et al.*, 2016). According to Njagi (2017), the modalities of funding of a business can influence the firm's objectives and goals. Capital structure is how a model assesses an institution's financial behavior through a combination of debt

and equity (Mwenda & Kalio, 2014). Debt is defined as the borrowed fund. Silverman (2017) postulates that microfinance banks typically borrow from commercial banks, SACCOS, Cooperatives, and others to improve their loan levels and creditworthiness and meet essential fixed assets operational needs. Mainly, debt capital is used by private companies because they cannot raise through equity unless they go public (McBride, 2017). Equity may be that from the shareholders or private equity. According to Silverman (2017), shareholders' equity is the total amount of ownership investment in a company which comprises all capital contributed to the company, including paid-in capital and retained earnings. Chen and Scott (2020) stipulate that investment funds classified as limited partnerships are an alternative to private funding consisting of equity securities and debt not issued to the general public.

Financing mix was measured using a model known as the debt-to-equity ratio used to evaluate a company's financial pull. The institutional economic level is usually assessed on dividing total liabilities with the total bondholders' equity. It shows the extent to which an organization is using debt versus wholly-owned to finance its operations. A higher leverage ratio will indicate a risk to shareholders (Fernando & Mansa, 2020). Credit default risk is one of the practices that MFBs ought to take seriously as they deal with small credits to low-income earners whose probability of default is high. It is the most significant risk

from an MFB's perspective due to its severe adverse effects on the microfinance industry's success. This is because it can lead to liquidity problems, thus limiting the ability of MFBs to extend loans to their customers (Setargie, 2013). According to Kagan and Brock (2020), Credit default risk is the risk that the borrower exposes the lender from not making his liability commitment. The borrower may go beyond a limit of 90 days without making any payment or may default completely. According to the scholars, default risk is two-faceted; it applies to people who borrow money and financial corporations that lend to other individuals and entities; thus, both may fail to make their interest payments if financial constraints occur.

Kagan and Brock (2020) suggest that a higher required return is instigated to mitigate default risk, thus propelling a greater interest rate. Agyepon (2015) argues that the extent of credit default risk is mirrored in how an organization conducts credit rating on their potential customers. Therefore, if customers default, the microfinance banks will not also honor their debt payments. The interest coverage ratio would be ideal for measuring this risk, and it is calculated by sharing earnings before taxes and interests by its periodic debt interest payments. An advanced ratio indicates a lower default risk since there would be enough income earned and vice versa. Asset and Liability Management (ALM) is referred to by Banton and Boyle (2020) about how a firm manages its assets and

cash flows efficiently to avoid the loss that comes with late payment of a liability. Thus, ALM reduces a likelihood of a mismatch. Clients' loans are the largest sources of assets for MFBs because they earn revenue through the interest charged. It attracts a lot of credit risk; thus, its effective management largely relies on the organization's credit control policies and cultures (Twesige *et al.*, 2019). As MFBs expand where they obtain their funds, comprehensive management of assets and liability helps them evaluate and moderate their related financial risks.

For microfinance banks, credit risk is of great concern because they extend loans to clients who do not have collateral; hence they are not guaranteed on getting their money back. Therefore, MFBs should effectively manage loans, which are their main assets, to minimize potential risks that would affect their financial performance (Twesige *et al.*, 2019). This can be done through group lending, a strategy of reducing the risk of a loan default (Dellien, Burnett, Gincherman & Lynch, 2005). MFBs acquire funds from other financial institutions for use in lending and investing, of which they have to repay with a particular interest rate. This is considered a liability to the microfinance bank since it comes with high-interest rate-related risk (Maina, 2013). Generally, there is the main objective in ALM: managing the risk of interest rate and liquidity risk. It also defines the general policy for credit risk and sets its direction (Novickytė & Petraitytė, 2014). ALM would be measured by asset coverage ratio, showing how much assets a

firm will require to cover its outstanding debts. It measures a company's physical and fiscal assets in comparison to its financial obligations. It predicts future earnings and also the risk of insolvency. A higher ratio will mean that the MFB has enough assets to cover the existing debts.

1.1.2 Financial Performance

Kenton and Scott (2020) define financial performance as generally a gauge of an organization's economic well-being as a result of effective and efficient use of the company's assets from which incomes are created. It is an instrument that helps investors and analysts to visualize the performance of equivalent organizations as a matter of comparison in order to make sound financial decisions. It appreciates how a company can craft proceeds and efficiently handily its assets, liabilities, and financial interests of its shareholders. Most business organizations have a priority in analyzing their financial performance to ensure long-term sustainability and the potential to increase the value of the business (Kenton & Scott, 2020).

Crane (1998) posits that measuring any firm's financial performance is a critical step in managing risk, geared towards making sound decisions from accurate information and proper analysis. Many stakeholders ranging from investors, bondholders, creditors, and employees to management, are interested in a firm's financial performance with each group's interest. They are provided with the essential information on the financial performance of an organization by the

relevant authorities, and they also extract it from published data in the form of financial reports that are audited yearly and also analyzed from supposedly reliable and accurate financial statements of the company (Kenton & Scott, 2020). Kenton and Scott (2020) also argue that the most common financial statements or reports include the balance sheet, income statement, and cash flow statement.

Ijaz and Naqvi (2016) postulate that financial performance can be measured through various indicators, but the most relevant in finance is financial ratios. Mohammed, Abdullah, and Faudziah (2014) indicate that performance measurement is substantially crucial for any monetary organization's operative management. According to the scholars, most of the researchers have tried to find out the best performance measurements. Still, no performance indicator has been classified to have the ability to measure all performance to date. Mohammed and Abdullah (2014) show that some measures have been classified into accounting-based and marketing-based measurements. Most of the accounting-based standards include Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS), Return on Capital Employed (ROCE), Return on Investment (ROI), among others and are mainly used to gauge the profitability of the firm.

Most of the researchers have indicated the effectiveness of ROA as an assessment tool for organizational financial performance. For instance, Nuryana and Islam (2011) show how ROA is effective when its result is a cheerful high indicator.

Ibrahim and Abdul (2011) also indicate a company is able to see effective use of its assets through ROA. Mohammed and Abdullah (2014) compiled a list of the authors who used various accounting-based measures. Evidence in the compilation shows that most researchers preferred ROA as a financial performance ratio to other measures. This study considered two financial performance measures: Return on Assets as a profitability ratio and Quick/Acid test as a liquidity ratio. Return on Assets is an indicator that shows a company's level of profit or any likely profit a company is entitled to be relative to its total assets due to how the management has competently used its assets to acquire earnings. (Hargrave & James, 2020).

ROA is expressed as a percentage calculated by dividing a firm's net income by its sum of assets. A higher ratio indicates greater asset efficiency, thus higher profitability. The Sum of assets involves the total sum of the total liabilities and shareholders' equity in an organization. These are used to finance the operations of the firm through debt or equity (Hargrave & James, 2020). Although MFIs, in general, are viewed as instruments of social change, that is, poverty eradication among the poor, long-term sustainability is of paramount consideration; thus, their performance remains an issue for focus. Therefore, ROA was relevant for this study, whereby it was collected for the MFBs under study for a time period of 5 years from 2015 – 2019 for trend analysis.

The acid test is one of the liquidity ratios that shows the capacity of an organization to offset its short-term liabilities through the assets that can be transformed into cash on emergency. Liquid assets are those assets that an organization can quickly convert to cash and offset its firm's current liabilities, thus the name acid test, which is designed to produce instant results (Kenton & Scott, 2020). According to Kenton & Scott (2020), the higher the quick ratio results, the better a firm is in liquidity and financial health. A lower acid test ratio may mean that a firm will likely struggle in meeting its debts. The ratio is usually calculated by dividing present possessions by the company's present liabilities in a specified period. In MFBs, liquidity risk may be double-phased because the borrowers may fail to honor their repayment obligations, thus putting the microfinance institution in a liquidity crisis. Microfinance will not be able to offer new loans to new clients. On the other hand, due to the liquidity crisis, the microfinance banks may not repay their borrowed funds from financial institutions such as commercial banks. This may result in a liquidation of the firm (Owino, 2011). Conclusively, this ratio remains critical for assessment of any firm's financial health.

1.1.3 Firm Size

According to Hamsi *et al.* (2020), the size of a firm is a characteristic that is measurable by different measures such as total sales, number of employees'

Market capitalization, and total assets, Sritharan (2015) defines firm size as the ability a firm has in terms of capacity to offer multiplicity services to its customers. Babalola (2013) notes that a large firm has a greater drive on its shareholders than a small firm. Levine and Robert (2011) indicate that large firms face fewer limitations in accessing credit facilities from financial institutions for investments. Such firms have a wider pool of qualified human capital and might realize improved strategic diversification. These large firms can acquire funds at better interest rates while also gaining tax shields from interest-earning from borrowers, increasing possible tax benefits on debts. Dogan (2013) also indicates that large firms are more profitable because they possess a larger market share. On the other hand, small firms have more significant conflicts between creditors and shareholders. This is because managers of such firms are usually the main shareholders and are able to adjust from one investment project to another without any barriers. (Levine & Robert, 2011).

In this study, firm size was assessed and measured using the sum of its assets' logarithm. Dang and Li (2015) postulate that total assets are a measure of a firm's resources. According to Nyamasege (2014), assets are the basis through which financiers gain confidence to finance a business entity since they are guaranteed to recover their capital. Nyamasege (2014) suggests that tangible and generic assets enable a firm to achieve more excellent liquidation value. Some assets,

such as fixed assets, support a sophisticated debt level in comparison to imperceptible assets, which may include corporate image and business network strength. Therefore, valuable assets and the number can be used as collaterals to minimize potential distress costs such as agency costs due to debt use. (Nyamasege, 2014).

1.1.4 Microfinance Banks in Kenya

Ndondo (2007) indicates that Kenyan microfinance institutions are classified into three: the formal subsidized, formal non-subsidized, and informal. This study will consider formal non-subsidized monetary institutions legally registered and regulated by the Central Bank of Kenya. They are known as microfinance banks (MFBs), and they are guided by Microfinance Act, 2008 that allows them to take deposits and make savings from and for their clients, respectively (Ndondo, 2007). According to Nyakinda (2019), since the licensing of the first microfinance bank in 2009, their number has risen to 13 with a total asset base of about Kshs.16.5 billion and deposits of around Kshs.40.2 billion by December 2018. In the 2017/2018 financial year, Microfinance banks (MFBs) registered a four hundred- and forty-seven percent increase in reported loss of Kshs. 935.1 million in the period up to the end of June 2018 in comparison to loss a of Kshs. 171.4 million at the end of June 2017. Customer deposits decreased by 5 percent (Central Bank of Kenya, 2019).

Although microfinance banks have played a vital role in the Kenyan economy, they have faced significant equal measure challenges (Aswani, 2019). Some of the fundamental challenges include competition and rapid business environment changes, financial instability, uncontrolled growth, management challenges, credit rating issues, and political and economic instability (Aswani, 2019). This makes it hard for them to sustain their success in the future. Therefore, they need to operate in effectiveness and efficiency (Xu & Liu, 2019).

1.2 Statement of the Problem

Management of finance is a crucial function of any business institution since it determines its success (Lakew & Rao, 2014). Kwame (2010) suggests that unpleasant financial management practices will negatively impact business profit and organizations' financial results. A trend analysis by CBK, (2019) for the last five years indicates that the Kenyan microfinance banks' financial outcome has continuously declined, thus a reason for this study to find out the major cause of the poor financial performance of the institutions. CBK, (2019) notes that although microfinance started on a high notch, the MFBs have been slogged into a loss-making streak in that pre-tax losses increased from 171 million in June 2017 to 935 million by the end of June 2018, thus a decline of 450%. Evidence also shows that about 70% of microfinance banks had registered losses by the end of 2016/2017. For instance, Daraja, Choice, Maisha, and Century Microfinance

Banks had breached their minimum requirement for core capital, thus signaling financial instability. Only Kenya Women Microfinance Bank did not fall into the loss-making spree, but its profits declined by 92%, from 224 million shillings to 18.7 million shillings in December 2016 (CBK, 2019). There is not enough evidence to assess what impact the synthesis of board characteristics, financing mix, management of credit default, and assets and practices of liability management have on the financial outcome of microfinance banks in Kenya. Thus, this study assessed these particular variables.

Empirical evidence on similar studies showed that the studies depicted mixed results. They employed different independent variables on the financial recital of microfinance banks, concluding that all variables classified as financial management practices have not been exhausted. For instance, Mabonga (2017) investigated the impact of different financial management techniques on microfinance institutions' financial results in Bungoma County, Kenya. Credit risk has a substantial impact on the financial returns of MFIs in Kenya, according to the study. Macharia (2018) investigated the connection between economic management and microfinance institution financial performance in Kenya. The research found a link between liquidity levels, managerial quality, asset quality, and the financial success of microfinance organizations. At the same time, there was a non-significant positive connection between the MFIs' financial success and

the quality of their profits. Njue (2020) examined the effects of liquidity and financial results on MFIs in Kenya, finding that asset quality and maturity gap had a little influence on the microfinance organizations' financial performance.

In contrast, capital adequacy depicted a positive and momentous effect on microfinance institutions' financial performance. Kirika (2018) deliberated on the factors that mostly affect microfinance institutions' performance: A case study of Meru County and found out that credit management, competition, and investment decisions have a significant relationship with the performance of microfinance institutions. Mutura and Omagwa (2018) assessed credit management practices and microfinance institutions' financial performance in Nairobi Central District, Kenya. The results of the study showed mixed results in that bank size and net income had a beneficial effect on real GDP, bank performance, and inflation showed a negative insignificant effect on bank performance while on the other hand, the total assets to loans had a statically positive inconsequential impact on the performance of the monetary institution. This study sought to determine what effect the board characteristics, financing mix, credit default management, and assets and liabilities management practices have on the financial performance of microfinance banks in Kenya.

1.3 Research Objectives

The study sought to achieve the following objectives:

1.3.1 General Objective

To assess the effect of financial management practices on financial performance of microfinance banks in Kenya.

1.3.2 Specific Objectives

The study sought to achieve the following specific objectives:

- i. To evaluate the effect of board characteristics on financial performance of microfinance banks in Kenya.
- ii. To determine the effect of financing mix on financial performance of microfinance banks in Kenya.
- iii. To evaluate the effect of credit default risk management on financial performance of microfinance banks in Kenya.
- iv. To establish the effect of assets and liabilities management on financial performance of microfinance banks in Kenya.
- v. To determine the moderating effect of firm size on the relationship between financial management practices and financial performance of microfinance banks in Kenya.

1.4 Research Hypotheses

The study tested the following null hypotheses:

H₀₁: Board characteristics do not significantly affect financial performance of microfinance banks in Kenya.

H₀₂: Financing mix does not significantly affect financial performance of microfinance banks in Kenya.

H₀₃: Credit Default Risk Management does not significantly affect financial performance of microfinance banks in Kenya.

H₀₄: Asset and Liability Management does not significantly affect the financial performance of microfinance banks in Kenya.

H₀₅: Firm size does not significantly moderate the relationship between financial management practices and financial performance of microfinance banks in Kenya.

1.5 Scope of the Study

The study sought to assess the effect of financial management practices on microfinance banks' economic outcomes in Kenya. The study chose microfinance banks as they are regularized and controlled by the Central Bank of Kenya, thus bringing out a precise and reliable status considering the variables under study. Financial management practices were measured using board characteristics, financing mix, credit default risk management and assets and liabilities management practices. Financial performance was measured using return on assets and liquidity ratio (Quick/Acid test ratio). The study was a

survey of 13 microfinance banks in Kenya. Secondary data from published audited financial statements was based on five (5) years from 2015 to 2019.

1.6 Significance of the Study

The conclusions of this study provided data on the impacts of monetary management practices and financial performance of microfinance banks in Kenya. These findings were necessary to stakeholders in the financial services industry and businesses in general. The primary beneficiaries of this study would be the microfinance banks' policymakers, who would be informed of strengths and weaknesses in their financial management practices. The study recommendations, if implemented should see improvement in the financial performance of MFBs. Moreover, The Government would also benefit from the results obtained in this study as it sought to leverage growth and progress in the financial outcome of microfinance institutions. This is amongst fundamental economic drivers in Kenya.

From the study findings, the Kenyan administration would appreciate ways by which financial performance can be enhanced through financial management practices. This act may cascade to the rural microfinance institutions, thus improving the whole sector. Further, this study serves as a stepping stone to newer research on financial management practices in microfinance institutions. The research would add more facts to the already existing scholarship work. It

would outline the techniques of improving the performance of microfinance banks in Kenya for future growth and sustainability.

1.7 Organization of the Study

The introductory chapter for this project covered the background of the study topic and defined the study problem, study hypothesis, study objectives, and significance of this study in that order. The chapter also covered the outline of the study. The second chapter critically analyzed the existing literature on the study topic. The review would shed light on prior research that is related to this study. The third chapter defined the research methodology that this study adopted to solve the study problem and meet the study objectives. The fourth chapter presented the findings and analytical discussions. Finally, chapter five captures the summary, conclusion and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section involved the work of different authors and researchers who exposed the concepts and theories of financial management. The discussion herein presented a literature review relating to the subjects being studied as presented by different investigators and specialists. It also provided a conceptual framework and summary table of research gaps that the project filled.

2.2 Theoretical Review

The study was emphasized through review of agency theory, pecking order theory, shift-ability theory, credit default model and model of financial performance.

2.2.1 Agency Theory

Jensen and Meckling (1976) structured this theory, which explains the separation of ownership in corporate governance whereby professional managers referred to as the "agents" are appointed to manage the firm and represent the role of the firm owners. Agency theory is also described as the segregation of firm ownership and governance, which is likely to result in insufficiency (Reade, 2010). It addresses the issue relating to existing problems between principles and agents. The firm or business owner can benefit from the separation caused by strategic delegation

(Arnold, DeOrtentiis & Van Iddekinge, 2017). Steinle, Schiele, and Ernst (2014) indicate that the primary expectations of principals are the maximization of the wealth and profitability of the shareholders, who are the owners of the organization. These are described as the priorities of the principal. However, sometimes managers or agents perform contrary to the expectations of principals, thus resulting in agency conflicts.

Ross and Mitnick (1973) posit that conflicts of principal-agent nature are normal in organizational setups. These conflicts may incur agency costs in the event of the principal trying to implement solutions to the agency problems (Arnold et al., 2017). Ross and Mitnick (1973) explain that conflicts occur as a result of contrasting interests among different parties in a firm. For instance, conflicts may arise if the managers, herewith referred to as the "agents," put their personal interests over those of the stakeholders, also referred to as the "principals," by offering great packages to benefit themselves (Fayezi, Sajad, O'loughlin, Zutshi & Ambika, 2012). Agency theory postulates that the company may solve agency problems by providing market discipline such as hostile take-over, where management provides incentives to ensure enriched management that enhances operations (Arnold *et al.*, 2017). This may cause new management to dismiss the existing managers.

According to Steinle, Schiele, and Ernst (2014), the company may also tie administration's compensation to the organization's stock price or performance, monitoring the agents' activities, use written contracts to avoid agency problems, creating a principal-agent model that spots and reduces the costs and threat of firing the agents. All these solutions may incur agency costs which can either be the one that occurs when an agent uses resources from the company to benefit him/herself or even the cost relating to techniques used by principles in the prevention of the agent from prioritizing his interest over the interest of the firm (Panda & Leepsa, 2017). Microfinance banks aim at minimizing agency problems in order to maximize the shareholders' value and increase profitability. Agency theory is linked to board characteristics which in this case is indicated by board composition and gender diversity. Fama (1980) proposes that the structure of the board is expressed by the ratio of non-executive as opposed to the executive committee of executives whereby non-executive who are independent directors are of appropriate number and caliber so as to give them an upper hand in deciding for the firm and to meet supreme interests of the shareholders.

On the other hand, gender diversity is the proportion of men and women who occupy board members' positions (Wikipedia.com). According to Wikipedia.com, men tend to occupy more seats than women world over, and this forms a basis for debate, of which a survey of more than 4,000 directors cited the

reason as to lack of qualified female candidates. Ruigrok *et al.* (2007) note that a woman director can bring valuable skill, knowledge as well as different norms and understanding while also promotes greater attendance to meetings and vigilant monitoring of financial and employee performances. Gouiaa and Zeghal (2014) suggest that the features of the board of directors largely determine the accomplishment of their responsibilities. Agency theory, therefore, was of paramount importance in this study that seeks to determine the impact of board characteristics on the financial outcome of microfinance banks in Kenya.

2.2.2 Pecking Order Theory

Myers and Majluf (1984) advanced the pecking order theory, which shows the preference of financing sources by managers through a hierarchical structure. Eldomiaty, Sliman, Fikri and Anis, (2016) assert that a firm prefers internal financing first than external financing in the event that internal resources are not enough. According to Hejazi, Valipoor, and Siamer (2012), internal funding includes the retained profits used to pay dividends and finance new investments, while external funding includes debt and equity. This theory arises from the concept of asymmetric information where managers possess better information than external parties (shareholders who are the investor and creditors who are the debt holders), thus causing transaction inequality. (Corporate Finance Institute, 2021). This results in a greater rate of return for external sources of finances in

order to mitigate the high risk the investors are taking. As a result of information asymmetry, firms lack optimal debt to equity ratios (Bhama, Jain, & Yadav, 2018).

The decision about how to finance a firm is important because firms want to know how to invest in the best way possible (Jarallah, Saleh, & Salim, 2019). According to Bhama, Jain, and Yadav (2018), if it is a must for a firm to use external funds, it is recommended that it uses the pyramid in funding structure, starting with internal funding to external funding last option. In this order, only the common stock has a management's voice, thus reflecting the financial management motivation in retaining the control of the firm. It also helps in reducing the agency cost of equity and avoidance of seemingly unavoidable market reactions during the announcement of the new equity issue (Eldomiaty, Sliman, Fikri & Anis, 2016). This theory relates to the financing decisions where the microfinance banks' management has to determine the order of funding its operations. Most MFBs prefer internal financing instead of debts and equities (Maina, 2011). However, in the event that the microfinance banks must use external financing, preference should be on debt financing over equity financing because debt is less expensive than equity in a certain proportion (Corporate Finance Institute, 2021).

According to Corporate Finance Institute (2021), the issuance of debt gives a signal of undervalued stock, hence confidence that the investments of the bank are profitable. On the contrary, the issuance of equity signals adversely that the stock is overvalued, thus gives a notion that the management is seeking funds through diluting the shares of the microfinance bank. Financing decisions are critical in the determination of the value and financial outcome of an organization. (Gomez et al., 2012). Although debt is cheaper than equity, its high exposure may lead to bankruptcy (Oino, 2014). Therefore, it is important for all businesses, including microfinance banks, to identify and acquire the most suitable financing synthesis between borrowed funds and shareholders' funds for optimum capital structure (Ukaegbu & Oino, 2012). This is why this study involved a financing mix as one of the independent variables and showed its effects on the financial outcome of the microfinance banks.

2.2.3 Shift-ability Theory

This theory was proposed by Moulton (1918). It asserts that when a financial institution such as a commercial bank or microfinance bank is in shortage of equipped cash, it can sell or lead its possessions to a more liquid bank to solve the cash shortage. In other words, it can uphold a substantial amount of assets that can be transferred without any capital loss whenever a need for liquidity arises. According to Wikipedia, illustrations of such assets include shares, debentures,

treasury bills, and bills of exchange which should be shiftable to other institutions with higher cash status, thereby forming the capital needed. Moulton (1918) asserts that this aptitude to move assets provides liquidity to other non-liquid assets. This theory may apply to MFBs because when they have idle cash, they have it in the form of valuable assets that can be shiftable immediately to other financial institutions able to convert them to liquid cash whenever the MFBs' liquidity need arises to cater for day-to-day financial operations.

According to Banton and Boyle (2020), ALM is the manner in which a firm manages its assets and cash flows efficiently to avoid the loss that comes with late payment of a liability. Banton and Boyle (2020) emphasize that when there is good management of assets and liabilities, a business is bound to raise its profit levels. During a crisis, a company should have liquid assets that can immediately cover due debts. The theory is applied to loan portfolios of banks. In MFIs, especially the Deposit-taking, ALM remains critical since it addresses managing the acquisition and allocation of funds to ensure adequate liquidity, maximum profitability, and minimizing risks (Manohar, 2015). To make money, financial entities should be ready to risk; thus, an appropriate balance between risk and reward should be critically analyzed. As MFBs extend their areas where they secure finances, total assets and liability management (ALM) are crucial to gauge and moderate financial risk (Karla, 2009). ALM was necessary in this study to

show how a trade-off between assets and liabilities can minimize risks that impact the financial outcome of microfinance banks.

2.2.4 Credit Default Model

Kenton and Scott (2020) describe credit as an agreement between a creditor and a debtor. The debtor receives some money from the creditor and agrees to repay in the future with some interest within the agreed timeframe. When a debtor thus fails to honor this obligation past the due date, it becomes a default. Chatterjee (2015) also defines credit as money provided by a creditor to a borrower, also referred to as the obligor. In contrast, credit risk is the threat from the possibility of non-payment of a debt obligation. According to Sy (2007), the credit default model should have an explicit consideration of the instances that directly lead to the effects that are linked to credit evasion. The scholar posits that there must be straight causative links between macro-economic causes of the dynamic financial setting and their microeconomic conditions on fluctuating individual or commercial economic situations leading to possible credit defaults. Sy (2007) suggests that the credit default model should be a causal framework, including two delinquency concepts and insolvency.

Delinquency arises when a debtor cannot meet his or her debt settlement at the appropriate set date, thus causing problems to the lender. This concept applies primarily to unsecured loans. On the other hand, insolvency is a situation where

assets are less than liabilities, which applies to secured loans. Sy (2007) offers that insolvency cannot lead to credit evasion on its own since holdings of an institution are not easily noticeable, especially if they are intangible such as intellectual property, trademarks, among others. Hence, only delinquency can be assumed to lead to a net equity position that can be evaluated, leading to a possible assumption of insolvency and, therefore, a credit default. Microfinance banks depend on effective loan recovery mechanisms for continuous stability in liquidity. Thus, default on loan repayment that will pose a significant risk to their financial performance should be significantly prevented (Keitany, 2013). Therefore, according to Keitany (2013), firms should embark on effective credit policies that will positively impact debtors' levels, thus improving their financial performance. This model was crucial in the study in order to show how credit default affects the overall performance of microfinance banks and how policies should be put in place to prevent or control it.

2.2.5 Financial Performance Model

Abraham (2004) structured the financial performance model in which he suggested that it should answer four critical questions according to the organization's mission. These include whether there are sufficient financial resources to enhance the mission, whether the monetary resources to support the mission are available, ways in which financial resources will be utilized to

support the mission and finally, whether analysis of the financial resources is well used to support the mission. This is well demonstrated in the model below:

Model of Financial Performance in Relation to Mission

(Turk et al., 1995, p. 1)

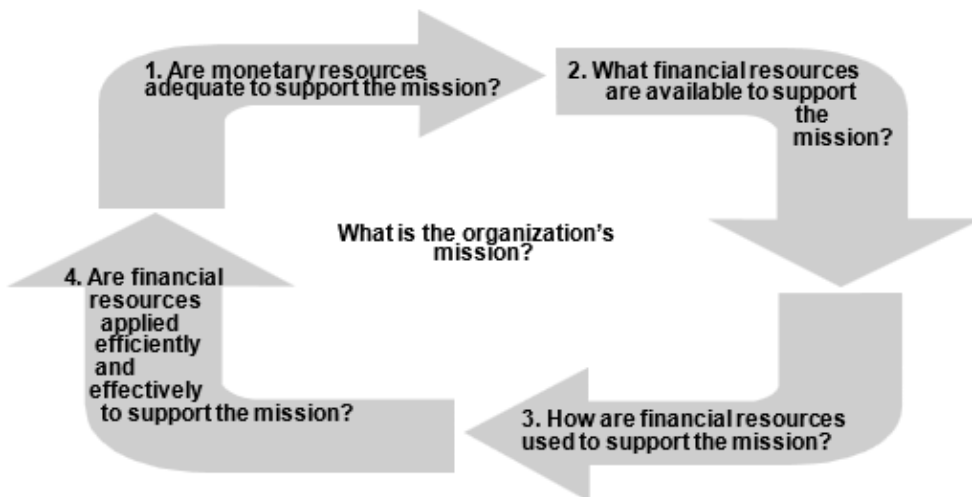


Figure 1.1: Shows the Model of Financial Performance in relation to mission

Source: AFAANZ 2004 Conference Paper: Alice Springs, NT, 4-6

According to Abraham (2004), in analyzing the availability and suppleness of an organization's fiscal resources, figures in both balance sheets and income

statements should be considered as these financial statements judge the organization's financial health in a particular period of time.

The available financial resources suggest long-term funding, which describes the extent to which an organization uses internal and external funding to support its mission. Further, Abraham (2004) poses that how fiscal resources are used critically touches on how organizations use the scarce resources, thus should put priority activities in the limelight.

In conclusion, Abraham (2004) proposes that how an organization proficiently and effectively applies fiscal resources is tied to financial concert accountability. Some of the efficient application parameters include profitability measures, innovation measures quality, internal measures of efficiency, and time (Horngren, Datar & Foster, 2003). This research considered profitability ratio (ROA) and liquidity ratio (Quick/Acid Test) ratio as measures of financial performance of MFBs in Kenya. ROA would indicate how profitable MFBs are relative to their efficiency in the use of their assets to generate earnings (Marshall & Margaret, 2020), while Quick /Acid Test measured how MFBs would able to offset their temporary debts with assets that can be transformed into cash in the shortest time possible (Kenton & Scott, 2020).

2.3 Empirical Review

2.3.1 Board Characteristics and Financial Performance

Ndegwa, Senaji, and Mugambi (2020) evaluated the influence that board characteristics have on the financial anguish of deposit-taking SACCOs in Nairobi County, Kenya. Secondary facts were collected from SASRA using a collection sheet as the data collection technique, while the analysis of the panel data was conducted using STRATA software. The significant results were a positive relationship between board the board's characteristics and financial combatant of deposit-taking SACCOs where board structure, board tenure, and board education had a statistically substantial and undesirable influence on financial distress. The study recommended SACCOs to have sinewy boards, improve structural board composition by including more women on boards. Finally, the study recommended more members with high qualifications, good decision-making skills, knowledge, and members with relevant credentials and to develop strict time schedules and measures for their members.

Kramario, Aleksic, and Bach (2018) established the effects of the board members' characteristics on Croatian insurance companies' financial behavior. The effects of gender diversity and the size of the board were analyzed. Panel model was used to analyze data for all operating insurance companies between 2007 and 2013. The findings suggested that gender differences and biasness at the top

positions are not crucial for firms' financial behavior. The study also found out that financial outcome is negatively affected by the structure and the total number of members in the top positions within the board members' organizational flow.

Gafoor and Thyagarajan (2018) studied the features of the board members and a bank's performance in India. A sample consisting of thirty-six scheduled commercial banks in India for the period 2001-2014. The study explored the effects of board size, independence, and Chief Executive Officer's duality on the performance of the bank. The key results show a noteworthy relationship between the size of the board and the bank's performance. At the same time, there was a good and important relationship between the board's independence and the bank's performance. Furthermore, the research established an insignificant relationship in the bank's account when the CEO and chairperson's roles were alienated.

Assenga et al. (2018) assessed the effects of the characteristics of the board such as gender differences, size and the structure of the board, external directors, the duality of the CEO/Chair, skills of the board, and international directors on the financial performance of the listed firms in Tanzania. The data collected ranged from 2006 up to 2013 from annual reports produced by the institutions and semi-structured interviews conducted by researchers. The critical research results show that CEO/Chairperson roles should be separated. The gender diversity

characteristic had a positive impact on the firms' economic performance; other factors such as the size of the board, Ph.D. attainments, and external directors did not influence the financial outcome of the listed firms.

Kasyoki (2016) studied the impacts of the board's characteristics on the financial outcome of the listed viable and service firms at Nairobi Securities Exchange. The study aimed to establish the association of the board's size, board diligence, and gender diversity with the listed commercial and service firms' performance. Data was collected as of December 2015, while panel data regression with the application of a test known as Hausman specification at 0.05 category of significance was employed. The study's key findings showed that both board diligence and board size significantly incremented the firms' performance. Gender diversity an adverse outcome portraying a decline in financial firms' performance. The research recommended more board meetings to increase its performance and a considerable proportion of directors in a board for better decision-making.

Ogunda (2015) investigated the link between board features on the performance of the firm, a survey of organizations listed at the Nairobi Securities Exchange. The study looked into female representation, age, education qualification, occupation experience, board independence, and nationality and their impact on firm performance. The descriptive research design was used, and secondary data

of 61 listed firms were analyzed through a multiple linear regression model. The key findings resulted in a substantive bond of the six variables with firm performance. The study recommended that stakeholders should take into account the board characteristics issues to minimize stakeholders' conflicts, improve managerial functions and overall performance.

2.3.2 Financing Mix and Financial Performance

Fatoki (2017) investigated the practices of the financial management of new micro-enterprises in South Africa. The research focused on six main practices of financial management: accounting information, management of working capital, accounting management, analysis of financial reports and records, financial control and strategic planning, and investment appraisal. The findings indicated that many new small businesses do not practice financial control and strategic planning, investment appraisal, and financial analysis. On accounting information, most of the upcoming enterprises maintained some books of accounts while omitting others, thus indicating a mixed result.

Onsase *et al.* (2017) evaluated the impact of external funding on SACCOs' financial outcome in Kisii Central District. The study indicated that 88.9% of the total number of the sampled SACCOs had been beneficiaries of external funding, whereas the remaining 11.1% had not benefited from any form of external funding. The findings showed that financing and investment policies have a

substantial impact on financial performance. Also, they have an influence on the quality of the organizational portfolio. This research aims at seeking and determining the effect financing mix has on the financial outcome of microfinance banks in Kenya.

Kyereboah (2013) surveyed on the elements of capital structure of fifty-two Micro-finance Institutions in Ghana. This research used panel data that involved a period of ten years from 1995 up to 2004. The researcher also used fixed and random-effects models to scrutinize the data. The study indicated that many large MFIs are of high leverage on their experimental results, and they finance their activities on long-term terms, which is not the case with short-term debt. Their leverage is well related to the tangibility of the assets. On the other hand, Small MFBs use short-term debt. The germane results confirmed that highly leveraged organizations in terms of debts perform better since they gain more customers. They also enjoy the scale of economies that help them curb moral threats and adverse selection, which makes them improve their ability to eradicate the risk. The study also showed that the status accorded to the board members and independence of the boards of MFIs significantly and positively affect their influence on decision-making on capital structure and composition.

Kuria (2013) studied the influence of the capital composition on the financial behavior of viable banks in Kenya. The findings of the study revealed that the

financial leverage had little bearing on commercial banks in Kenya. On the other hand, the results showed an affirmative link between debt ratio and Return on Equity (ROE), whereby an increase in debt ratio led to a higher ROE of commercial banks. This means that banks with higher debt levels have a higher return on equity ratio; thus, their financial performance is enhanced. Conversely, the banks that focus more on core capital tend to have reduced ROE, hence leading to low profitability.

Njeru (2012) examined the relationship between the firms' practices on financial management and the firm's performance on the financial sectors of savings and credit cooperative society (SACCOs) in Nairobi County, Kenya. According to the findings, it can be concluded that SACCOs use a combination of financial policies and plan to maximize their member equity. These, when well implemented, have led to better profitability of the SACCOs and better management of the resources. The Sacco sector is booming, especially due to the affordable loans from the SACCOs. This has helped the SACCOs to come up with the best policies for financial management to ensure profitability, thus, leading to the sector making major steps in regulating SACCOs due to the growth evidenced.

Orua (2009) investigated the relationship between the capital's organizational structure and its financial performance of MFIs in Kenya. He pointed out that

MFIs were positively and suggestively influenced by short-term debt. On the other hand, a debtor who borrowed long-term debt showed a better connection with outreach but had immaterial avoidance rates. However, both long and short-term debts showed insignificant results that indicated no impact that maturity has on the avoidance rates in MFIs. Generally, substantially leveraged MFIs were identified to exhibit a better performance by reaching out to more users.

2.3.3 Credit Default Risk Management and Financial Performance

Ndyagyenda (2020) assessed the management of credit risk and organizational financial performance: A case study of Africa (u) limited in Uganda where both qualitative approaches were used. The key findings showed a positive relationship between variables whereby a conclusion was drawn that suggested that credit appraisal has a great definition of a bank's survival and profitability, thus influencing its performance.

Eminike *et al.* (2018) examined the management of credit risk and financial behavior of MFIs in Uganda, where the research aimed at seeking whether there was any link between identification of credit risk, monitoring of credit risk, credit risk extenuation, credit risk appraisal, and financial outcome of the MFIs in Kampala. A sample of sixty staff members of the three selected licensed MFIs was used. A questionnaire was the data gathering technique that was used in the collection of the data. The data were analyzed using descriptive statistics

and the individual's correlation coefficient. The key findings indicated a strong well-structured relationship between identification of related risks, appraisal of credit risk, and financial performance of the MFIs. On the other hand, monitoring credit risk and mitigating credit risk had a reasonably significant positive affiliation on the financial outcome of the MFIs.

Muriuki (2017) analyzed the effects that credit risk management has on the financial behavior of Kenyan commercial banks and focused on assessing the impacts of credit administration unit, top management, credit policies, and practices of credit risk management on the financial outcome of selected Kenyan commercial banks. The data collection method that was used is Cluster sampling, and also, the researcher employed the use of descriptive research design in data analysis and presentation. Primary data was collected through a structured questionnaire while analyzed by descriptive statistics. SPSS tool was also used to analyze correlations among variables. The key findings showed that credit risk management, credit policies, top management, and credit administration practices had a positively substantial influence on the financial behavior of the studied Kenyan commercial banks. The study advises improvement of credit management issues and recognizes credit risk management implementation as a critical aspect of the daily running of the banks.

Onang'o (2017) evaluated the impacts of credit risk management on the financial yield of banks trading publicly in Kenya. The population involved forty-four commercial banking institutions. Out of the total banks used, ten were selected using the purposive sampling technique. The research conducted secondary research where secondary data was gathered from financial statements from respective banks and analyzed using generalized least squares regression using reviews software. Hypotheses were tested on a 5% significance level. The key findings indicated that capital adequacy ratio, loan loss provision ratio, and loss gave default ratio have no significant effect on the bank stock performance based on any statistical proof while loans ratio that is non-performing had negative and statistically influence on bank performance. The research left room for a recommendation that managers should emphasize loans ratio that non-performing since it had a substantive influence on performance.

Sindani (2012) studied the efficient management of credit practices on the performance of loans supported by the sector of microfinance in Kenya and found out that credit terms framed by MFIs, participation of credit officers and customers in making credit regulations, and the high rates of interest charged have an adverse consequence on the performance of loans. Soke, Fun, Ho, and Yusoff (2009) analyzed strategies of credit risk management in a few financial institutions in Malaysia. The key research findings indicated that most financial institutions and banks experience default due to the lack of capacity of their

clients in keeping their agreement regarding loaned funds. A bank is exposed to credit risk through lending to individuals, corporate entities, and other financial institutions. The study concluded that a poor portfolio might lead to credit-related risk and liquidity glitches. In credit risk management, the critical issue is elevating the risk-adjusted rate of return of the bank by having limits on credit risk exposure. They recommended that credit decisions be made by sound and selective analysis of risks associated with credits to avoid damage to the profitability of the banks.

2.3.4 Asset and Liability Management and Financial Performance

Owusu and Alhassan (2020) studied asset and liability management and bank profitability: A statistical cost accounting analysis based on an emerging market case. The target population was 27 banks in Ghana for a period from 2007-2015. The study's findings revealed that profitability is strongly linked to statement of financial status and that national banks have a higher rate of return on assets compared to international banks over the period of study. Further, banks that made high profits were pragmatized to have a higher return on both assets and rate of cost on assets than low profit-generating banks. The study provided insights in identifying the assets that create an optimal return on bank profitability.

Sathyanarayana (2014) studied the management of both assets and Liability in ICICI Bank. The main aim of the research was to seek for better comprehension of the challenges associated with the maintenance and management of assets and liabilities. Secondary data was collected from websites, different journals, and annual reports of ICICI. To research, the hypothesis was tested through the application of correlations with the aid of the SPSS.21 software package. Significant research findings indicated that the ratio of capital turnover of the bank was satisfactory. Therefore, the cash ratio has not been maintained according to the set standards of ICICI Bank. The cash held was below the set average, which indicated that the company should maintain more cash balance. The net profit expected has been maintained as it is stated in the increasing rate, which is an indication of a well-performing during the period of study. The company's balance sheet has been steady and acts as a tool for projection of future advance and diversification of the firm.

Gyekyi (2011) deployed the goal of the programing method in establishing the association of the management of both asset and liability and financial outcome of National Investment Bank in Juabeng Municipality in Ghana. He found that the worth of banks' assets leads to a rise or decrease in the financial behavior of Banks. A logical increase or decline in liability and increase in rates had a strong influence on the success of an organization. Thus, an increase in inflation causes

an escalation in the financial outcome, and lowering of inflation leading to a decrease in the profit margin of the firm.

Ashock (2009) investigated on State Bank of India Group on Financial Performance. He argues that National Bank Groups, Private Bank Groups, and Foreign Bank Group in India are greatly affected by the financial free-type economy. The main aim of the research was identification the top-ranked mix of assets and liabilities for the financial outcome of banking institutions and offer relevant suggestions to strengthen the funds status of Commercial Banks. He summarized by saying that the banking sector has to take intensive measures on a variable that relates to the management asset and liability and that banking groups take necessary steps to improve the general performance of the banking sector.

Odhiambo (2006) studied practices of management of liability in commercial banks in Kenya. The overview of the research depicted that dependable assets appraisal and liability strategies were likely amongst several banks. Guidelines set by the management board directed them. Key findings showed a significant result in that bank's liquidity is challenged in two peculiar ways since they are in charge for handling the creation of liquid and liquidity risks. He concluded by arguing that banks must control their liquidity risks and their role as liquidity providers by reconstructing their liquidity management strategies.

2.4 Summary of Literature Review and Research Gaps

This section introduces table 2.1 which summarizes the empirical studies review and research gaps they reveal.

Table 2.1: Empirical Review Summary

Author(s) and Context	Objectives	Key findings	Research Gaps	How the this study filled the gaps
Ndegwa, Senaji and Mugambi (2020)	Investigated the effect of board features on monetary distress of SACCOs that are deposit-taking in Nairobi County, Kenya.	The study indicated a positive association between board composition, board education, board tenure, and financial distress of the Saccos.	This study tested the board composition, board tenure, and board education as the board's characteristics.	This study included gender diversity to compare the ratio of male to female and its implication on the board, which the other study did not address.

Kramario, Aleksic and Bach (2018)	Established the effects of the characteristics of the board on the outcome of Croatian Insurance Companies	The research findings indicated that gender differences at the top position do not affect the firms' financial success.	The scope of the study is on Croatian insurance companies	The previous research creates a contextual gap by looking at the financial outcome of insurance companies in Croatia. Thus, this study filled this gap by looking at the financial performance of MFBs in Kenya
Assenga et al. (2018)	Explored the effects of the characteristics of the board on the financial outcome of Tanzanian listed firms.	The study found out that some characteristics positively and significantly impacted the	The study lacked to consider the executive versus non-executive	This study addressed the unconventionality of corporate boards through the part of

		financial outcome of listed firms while others did not.	proportion and its impact on the independence of corporate boards	executive versus non-executive boards.
Onsase, Ondieki, Okioga and Okwena (2017), Kisii Central District, Kenya	To assess the influence of external funding on the financial outcome of SACCOs	A large percentage of sampled SACCOs had received external financing. Only a few had used internal financing. The financial outcome is affected by financing, investment policies that influence the quality of the organizational	The study concentrated on financing sources of the firms under investigation without considering their optimal capital structure.	This study was focused on financing mix whereby the effect of debt versus equity financing were assessed on the financial performance of microfinance banks.

		portfolio.		
Kyereboah (2013)	Examined the cultural determinants of Ghanaian micro financial institutions	Results showed that large firms are leveraged using long-term funding and perform better as opposed to small firms leveraged through short-term funding.	The scope of the study may not be relied on to represent the financial leveraging of microfinance firms.	This research project assessed the effect of financial leveraging through debt and equity on the financial behavior of microfinance banks in Kenya.
Njeru (2012)	Establishing the relationship between the management of financial practices and financial performance of	SACCOs use a combination of financial policies and plans to maximize on their members' equity.	The study focused on the financial policies and plans while leaving out many other variables classified on the	This project had a broader perspective as to consider the effect of board characteristics, financing mix, credit default management

	SACCOs in Kenya		category of financial management practices. Thus, the study was limited.	and asset and liability on financial outcome of MFBs.
Ndyagyenda (2020)	assessed management of the credit risk and organizational financial performance: A case study of Africa (u) limited in Uganda	The research results depicted that credit review is the key determinant of the success of banks.	The study was in the form of a case study that involved one bank in Uganda, and this may not be an accurate representation of all other financial banks.	This research study concentrated on the influence of management of credit default risk on the financial results of microfinance banks based in Kenya.
Onang'o (2017)	evaluated the impacts of management of credit risk on financial yield of banks trading	The key findings indicated that capital adequacy ratio, loan loss provision ratio,	The study only highlighted the commercial banks that have	The research indicated the applicability of the performance of the

	publicly in Kenya	and loss gave default ratio have no significant effect on the bank stock performance based on any statistical proof while loans ratio that is non-performing had negative and statistically influence on bank performance.	recorded on the stock exchange.	commercial banks that are only listed in the stock exchange leaving out other financial institutions. This study determined the impacts of effective management practices on the financial performance of Microfinance Banks in Kenya.
Owusu and Alhassan (2020)	Carried out a study on management of asset and liability and bank profitability: A statistical cost	The study's findings revealed that profitability is strongly linked to statement of financial	The research made a comparison on local and foreign banks about	This research addressed the concept of liability management that the previous study

	<p>accounting analysis based on an emerging market case. The target population was 27 banks in Ghana</p>	<p>status and that national banks have a higher rate of return on assets compared to international banks over the period of study</p>	<p>assets but did not address the issue of liability</p>	<p>failed to show.</p>
<p>(Odhiambo, 2006)</p>	<p>studied practices of management of liability in commercial banks in Kenya</p>	<p>Key findings showed a significant result in that banks' liquidity is challenged in two peculiar ways since they are responsible for managing the creation of liquid and liquidity risks. Guidelines set by the management board guided them.</p> <p>The researcher</p>	<p>The research was conducted on Kenyan commercial banks.</p> <p>The study assessed the practices of management of liability on</p>	<p>This study showed the influence of assets management and liabilities on the financial outcome of MFBs, which the previous study did not carry out.</p>

		concluded that banks must change how they balance their liquidity risks and their role as liquidity providers by reconstructing their liquidity management strategies.	commercial banks.	
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Source: A Review of the Empirical Literature, 2020

2.5 Conceptual Framework

Figure 2.1 shows the conceptual framework which elaborates the study variables and their indicators. The purpose of this study was to establish the effect that financial management practices have on the financial performance of microfinance banks in Kenya. Board characteristics, financing mix, credit default management, and assets and liabilities management practices are the independent variables. The financial performance is the dependent variable.

Independent variables

Moderating variable

Dependent variable

FINANCIAL MANAGEMENT PRACTICES

FINANCIAL PERFORMANCE

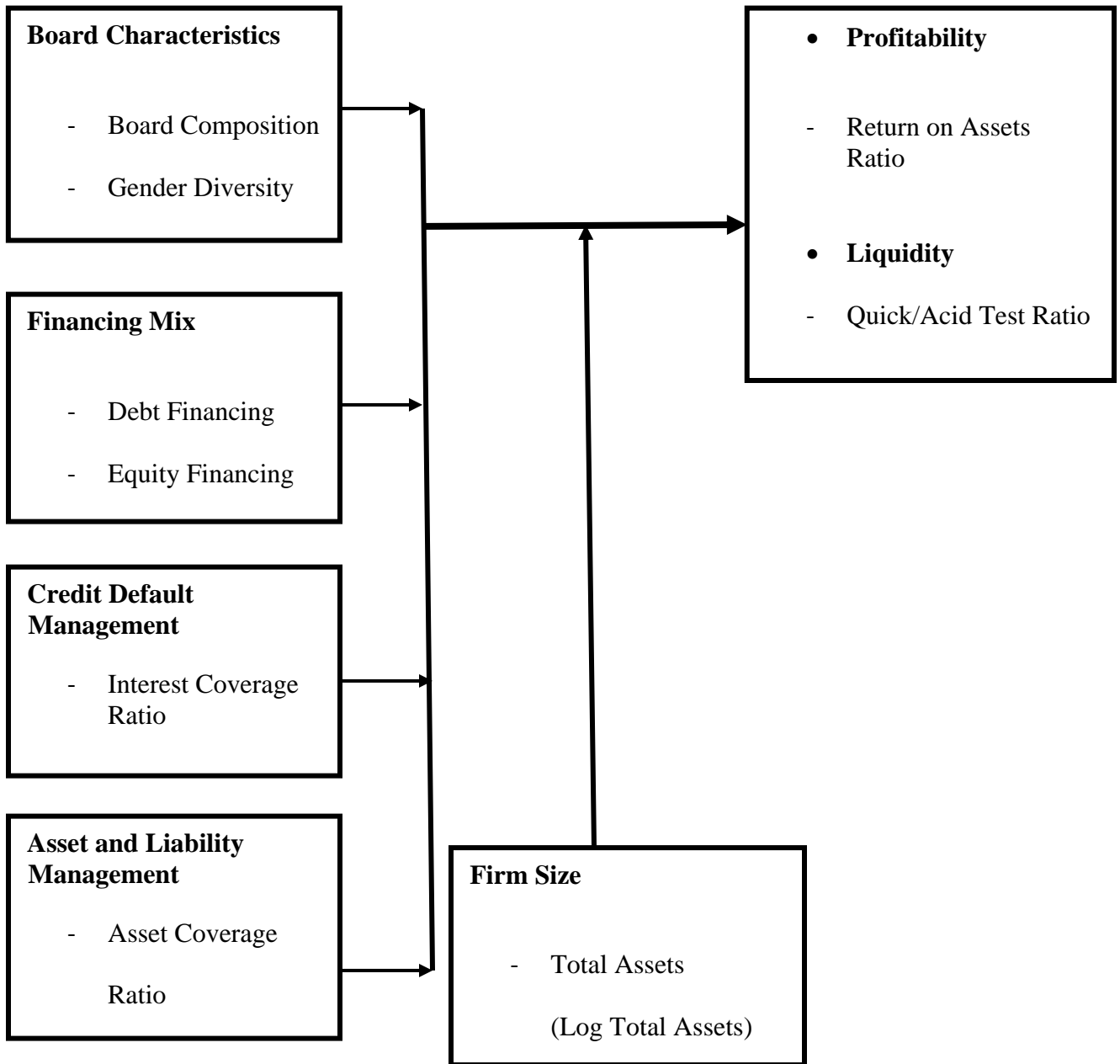


Figure 2.1: Conceptual Framework

Source: Researcher (2020)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this research was to assess the influence of financial management practices on the financial performance of MFBs in Kenya. This study section was, therefore, to effectively analyze the various methods adopted in conducting the research, such as research design, target research population, research resources needed for data collection, data collection procedures, practices, analysis and presentation.

3.2 Research Design

Akhtar (2016) defines research design as a structure that acts as a short plan for proposed research. Research design is a blueprint for conducting research; it organizes the outline of assortment, measurement, and examination of data. It tries to answer specific questions about how, why, what, and when of research. This study used a causal research plan. According to Kabir (2016), causal research can also be defined as an explanatory examination, and it is conducted to ascertain the extent and nature of cause-and-effect between two variables. A difference in the independent variable is said to be causing a change or changes in the dependent variable. This study chose causal research in order to explain the changes that financial management practices cause on financial outcome of MFBs in Kenya in order to draw conclusions and make recommendations accordingly.

3.3 Target Population

Target population refers to units from where the research inferences are drawn for data of objects under study (Lavrakas, 2008). The target population for this study comprised of 13 microfinance banks regulated and operating under the Central Bank of Kenya (Central Bank of Kenya, 2019).

3.4 Sampling Design

A sample design is a frame, or clear plan, that guides the selection of a survey sample while also influencing many other essential elements of the survey (Lavrakas, 2008). The study used a census approach. A census can be defined as a complete inventory of a particular population or a group of a population at a specific point in time with respect to well-defined features. (Evans, Hower, & Pachter, 2010). The census approach increases the reliability of results as it doesn't suffer from sampling bias (Port, Wolfe, Held, & Young, 2003). Therefore, all thirteen regulated microfinance banks in Kenya formed a census for the study.

3.5 Data Collection Instrument

This study focused on the collection of tributary data with the assistance of a document review guide. This document consisted of all information of key variable measures such as total assets, earnings before interest and tax, imperceptible assets, short term, current liabilities, the sum of liquid assets, number of executive management, and non-executive administrators. The data on executive and non-executive, male and female was available in the corporate

statement section of the audited financial statement reports of each microfinance bank under study. The reliance on experts' validity of data tests was involved.

3.6 Data Collection Procedure

The study accessed a clearance and consent letter from Kenyatta University, which granted right for collection of data. An authorization from the National Council of Science and Technology (NACOSTI) was also acquired so that data for the institutions under study achieved from available sources only served academic purposes. The study collected secondary quantitative data of the target population in relation to the parameters under study through the help of document review guide. The data was derived from available audited financial statements in Central Bank of Kenya and online financial reports of the stated MFBs for a period of five years from 2015-2019. This aided in the calculation of the specified financial ratios.

3.7 Operationalization and Measurement of the Study Variables

Table 3.1 illustrates the operationalization regarding all variables under study and how measurements was done.

Table 3.1: Operationalization and Measurement of Study Variables

Type of variable	Variable	Measure	Operationalization	Measurement	Scale
Independent variables	Board Characteristics	<ul style="list-style-type: none"> - Composition of the board - Gender differences 	<p>The part of the members of the executive board over the sum of the directors who are not in the executive committee.</p> <p>The ratio of Male to Female</p>	<p>Executive directors/Non-executive Directors</p> <p>Number of Males/Number of Female</p>	<p>Ratio</p> <p>Ratio</p>
	Financing Mix	Debt to Equity Ratio	<p>The level of business leverage that shows what is financed through debt versus owner's</p>	<p>Total Liabilities/Total Shareholders' Equity</p>	Ratio

			funds		
	Credit Default Management	Interest Coverage Ratio	The level of net income generated over interest payments	Earnings before taxes and interests (EBIT)/Periodic Debt interest Payments.	Ratio
	Asset and Liability Management	Asset Coverage Ratio	The number of tangible assets compared to outstanding debts	Total Assets - Intangible Assets) less (Current Liabilities-Short term Debt)/Total Debt	
Dependent variable	Financial Outcome	Returns on Assets	The extent of profitability expressed in terms of percentage of total net income over total assets generated	Net Total Income/Total Assets	Ratio

		Quick/Acid Test Ratio	Comparison of liquid assets (current assets) to current liabilities	Current Assets/Current Liabilities	Ratio
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Source: Researcher, 2020

3.8 Data Analysis and Presentation

In this study, descriptive statistics was the primary data analysis technique which employed the use of an individual's correlation coefficient and analysis of panel regression. Analysis of data can be defined as the process in which data is evaluated through the use of investigative and logical reasoning in the examination of each component of the information that has been extracted. (Al-Benna, Al-Ajam, Way & Steintraesser 2010). Descriptive statistics is mainly used in the description of a single or more than one variable. It can also be used to describe analyzed data which is then presented in the form of simple quantitative measures, including mean, mode, median and range. Trend analysis was used to present the changes in the ratios across the span of the selected years on the study. The data may be summarized in tables, figures, pie charts, histograms, and box plots (Kaliyadan & Kulkarni, 2019). An Individual's correlation coefficient quantifies a relationship between two variables and uses data that follow a bivariate normal distribution (Schober *et al.*, 2018).

According to Schober *et al.* (2018), hypothesis tests and confidence levels was necessary for addressing the statistical significance of the results and to measure the degree of the relationship between the populations from which the data was derived. In this study, the Individual's correlation coefficient was incorporated to reveal the link between the board characteristics, financing mix, credit default management, and practices of asset and liability management and financial outcome of the various MFBs under scrutiny. Panel data analysis involves data of a group of individuals, households, or firms surveyed on a repetitive series periodically. Panel data can also be defined as longitudinal or cross-sectional time succession data. It is usually extracted from a few observations over a substantial number of cross-sectional units or the research units (Frees, 2004).

Panel data uses hierarchical regression models that shed light on the units under study emanating from the data observed (Breitung *et al.*, 2007). A large amount of unique data points is yield in this panel data. These points allow a larger researcher's level of freedom to explore explanatory variables and business concerns. (Breitung *et al.*, 2007). In this study, data on independent variables, that is, board characteristics, financing mix, credit default management, and asset and liability management, was collected over a time series of five years from 2015 to 2019. The change observed in this panel data explained their relationship with the reliant variable: financial outcome.

The study performed some of the following diagnostic tests before running panel regression analysis, i.e., multicollinearity, normality and heteroscedasticity.

According to Frost (2020), multicollinearity tests whether independent variables are related. If they are related, it would be a problem because each independent variable, holding others constant, should portray their influence on the dependent variable. The interpretation is that one change in units is independent inconstant, representing a change in the mean of a dependent variable. Frost (2020) stipulates that it is difficult to estimate the relationship between independent and dependent inconstant where independent variable quantity is related. The convenient solution to multicollinearity is to carry out a stepwise regression. It involves adding or removing potential explanatory variables and testing statistical significance after each repetition until you get the right set of variables (Frost, 2020).

According to Ghasemi and Zahediasl (2012), normality is a statistical test for data to see how well it is distributed from the normal distribution model. This study used skewness and kurtosis to test normality—skewness tests for lack of even division in a distribution. Kurtosis is described by a measure that checks whether data have outliers concentrated in positive or negative directions of the normal distribution curve. A significantly skewed distribution indicated that a number is greater than +1 or lower than -1. For Kurtosis, a number that is greater than +1 leads to over-peaked distribution. The solution involves the use of a box plot to identify and sieve the outliers. Frost (2020) notes that heteroscedasticity occurs when there's a big range between the largest and the smallest observed values in datasets. Thus, when running a regression, heteroscedasticity would result in an unequal scatter. This is a rare problem in secondary data.

Panel regression model to be used for testing the direct relationship is captured below:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + e$$

Where:

Y_{it} = Financial Performance of microfinance bank i at time t

β_0 = Intercept

$\beta_1 - \beta_4$ = Beta Coefficients

X_{1it} = Board Characteristics of Microfinance Bank i at time t

X_{2it} = Financing Mix of Microfinance Bank i at time t

X_{3it} = Credit Default Management of Microfinance Bank i at time t

X_{4it} = Asset and Liability Management of Microfinance Bank i at time t

e = Error term

The model for testing moderator effects is captured below:

$$Y = \beta_0 + \beta_1 FMP_1 + \beta_2 FS_2 + \beta_3 FMP.FS_3 + e$$

Where:

Y = Financial Performance

β_0 = Intercept

$\beta_1 - \beta_3$ = Beta Coefficients

FMP_1 = Financial Management Practices

FS₂= Firm Size

FMP.FS₂= Interaction term for Financial Management Practices and Size of
Microfinance Bank

e = Error term

3.8 Ethical Considerations

As it is dictated in the Corporate Finance Institute (2015), business ethics are referred to as the moral values that guide the conduct of individuals or business organizations and their dealings in a personal and professional way. The researcher got authorization and permission documentation from the school of business, Kenyatta University. This letter identified the researcher as a legal student of the institution. and therefore was allowed to apply for a research permit from NACOSTI using this letter so that data for the institutions under research obtained from the available sources and eventual key findings were strictly used for academic purposes only.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The data analysis, results, and interpretation are all covered in this chapter. Tables and figures were used to show the findings. The examined data is organized into topics that correspond to the study's goals. The chapter covered the descriptive analysis of the main findings based on the variables of the study. The variables were board characteristics, financing mix, credit default risk management, assets and liabilities management and financial performance. The inferential analysis were also covered in this chapter. This was done using regression analysis

4.2 Descriptive Statistics and Trend Analysis

Mean was considered to measure average values on the test variables. Standard deviation was used to point out the variation (dispersion) from the average (mean). Table 4.1 shows the results of descriptive statistics where a big standard deviation indicates that the data is distributed over a wide variety of values, while a small standard deviation indicates that the data is near to the average.

Table 4.1 Descriptive Statistics Summary

Measures	Obs	Mean (Ksh '000')	Std. Dev. (Ksh '000')	Min	Max
No of executive directors (male)	65	2.230769	0.580119	1	3
No of executive directors (female)	65	0.538462	0.63926	0	2
No of Non-executive Directors (male)	65	2.692308	0.827705	1	4
No of Non-executive Directors (female)	65	1.461538	1.562019	0	6
Total Debts	65	4670118	8744471	0	27400000
EBIT (Earnings Before Interest and Tax)	65	85756.92	342254.6	-346000	1398943
Interest Expenses	65	120114.1	257747.6	-54119	1072006
Intangible Assets	65	106977.9	285181.9	0	1347000
Current Liabilities	65	4335588	8277588	0	26400000
Short-term Debt	65	1120141	2302640	0	9074097

Net Income	65	-30488.2	152133.1	-827123	395000
Total Liquid Assets	65	7955148	2.91E+07	0	2.29E+08

Source: Research Data, 2021

With a minimum of 1 and a maximum of 3 directors, the mean number of male executive directors was 2.23. With a minimum of 0 and a maximum of 2 directors, the mean number of female executive directors was 0.53. The results indicate that male executive directors outnumber female executive directors in banks. With a minimum of 1 and a maximum of 4 directors, the average number of male non-executive directors was 2.69. With a minimum of 0 and a maximum of 6 directors, the average number of female non-executive directors was 1.46. The standard deviation for female non-executive directors was greater than the mean, indicating that there was a lot of variance in the makeup of the institution boards. Furthermore, as compared to the executive board composition, the number of non-executive directors in businesses is large.

With a minimum of 0 and a high of 2.74E+07, the mean total debts was 4670118. The significant standard deviation indicates that the businesses' debt levels vary widely. With a low of -346000 and a high of 1398943, the mean Earnings Before Interest and Tax was 85756.92. This demonstrates that certain institutions suffered losses in specific years. The average interest cost was 120114.1, with a low of -54119 and a high of 1072006. The huge standard deviation indicates that interest costs at the institutions vary a lot. With a minimum of 0 and a high of 1347000, the mean intangible assets was 106977.9. The value of intangible assets

varied widely across institutions, as shown by a standard deviation that was greater than the mean. With a minimum of 0 and a high of 2.64E+07, the mean current liabilities was 4335588. The high standard deviation indicates that the quantity of current liabilities in the institutions varies a lot.

With a low of 0 and a high of 9074097, the mean short-term debt was 1120141. This revealed that certain organizations had high short-term debt levels while others had low debt levels. With a low of -827123 and a high of 395000, the net income had a mean of -30488.2. The high standard deviation indicates that financial earnings in the institutions vary widely. With a minimum of 0 and a high of 2.29E+08, the mean total liquid assets was. The value of liquid assets in the institutions examined was very erratic. The research also looked at changes in trends of board characteristics, financing mix, credit default risk management, assets and liabilities management and financial performance from 2015 to 2019.

4.2 Trend Analysis

The trend for board characteristics factor is as shown in Figure 4.2.1

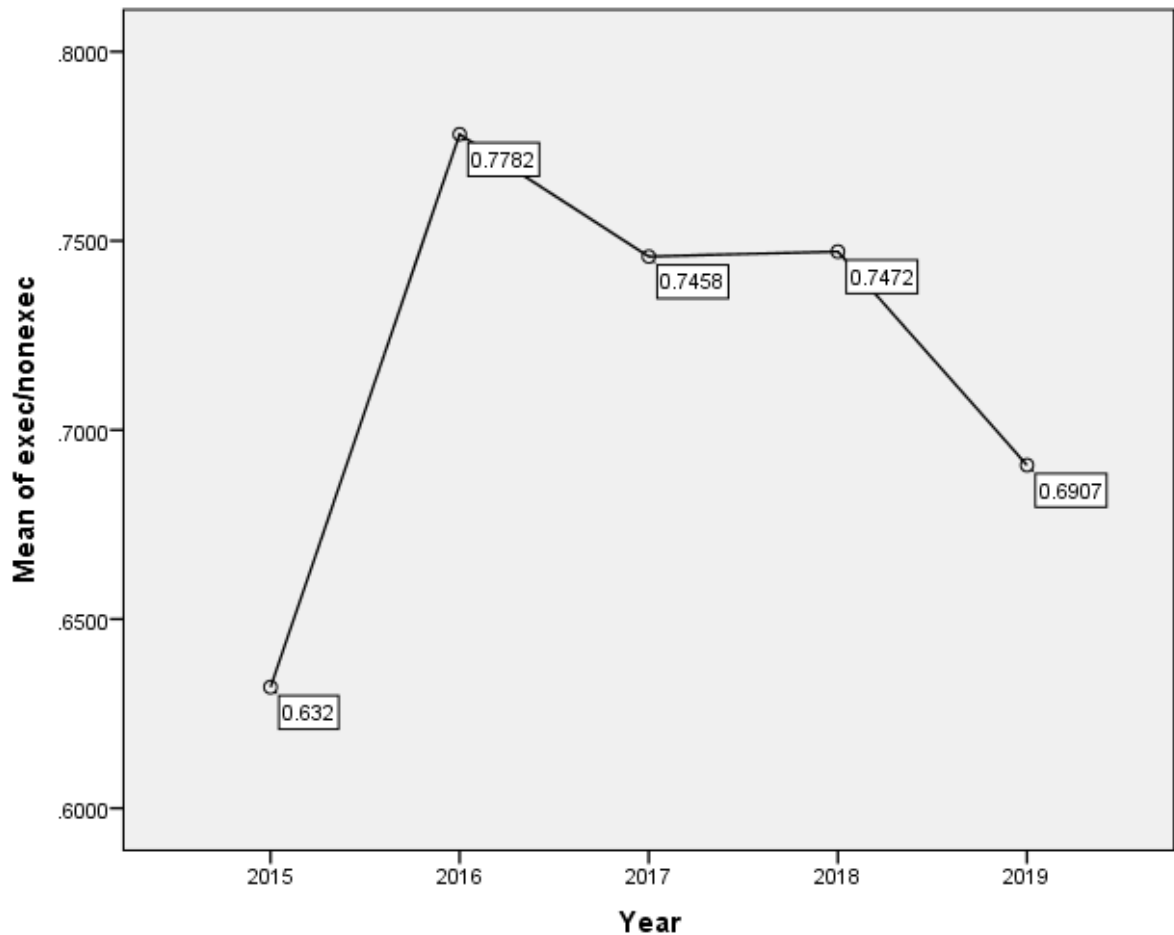


Figure 3.1: Shows Executive versus Non-Executive Director Membership

Source: Research Data, 2021

The ratio of executive and non-executive board members rose in 2016 meaning that the microfinance banks engaged more inside members than outside members. Further, there was a drop in the consecutive years of 2017, 2018 and 2019. The recorded ratio documented highest in 2017 where the executive members were more compared to non-executive members.

4.2.2 Trend for Financing Mix

The trend for financing mix factor is as shown in Figure 4.2.2.

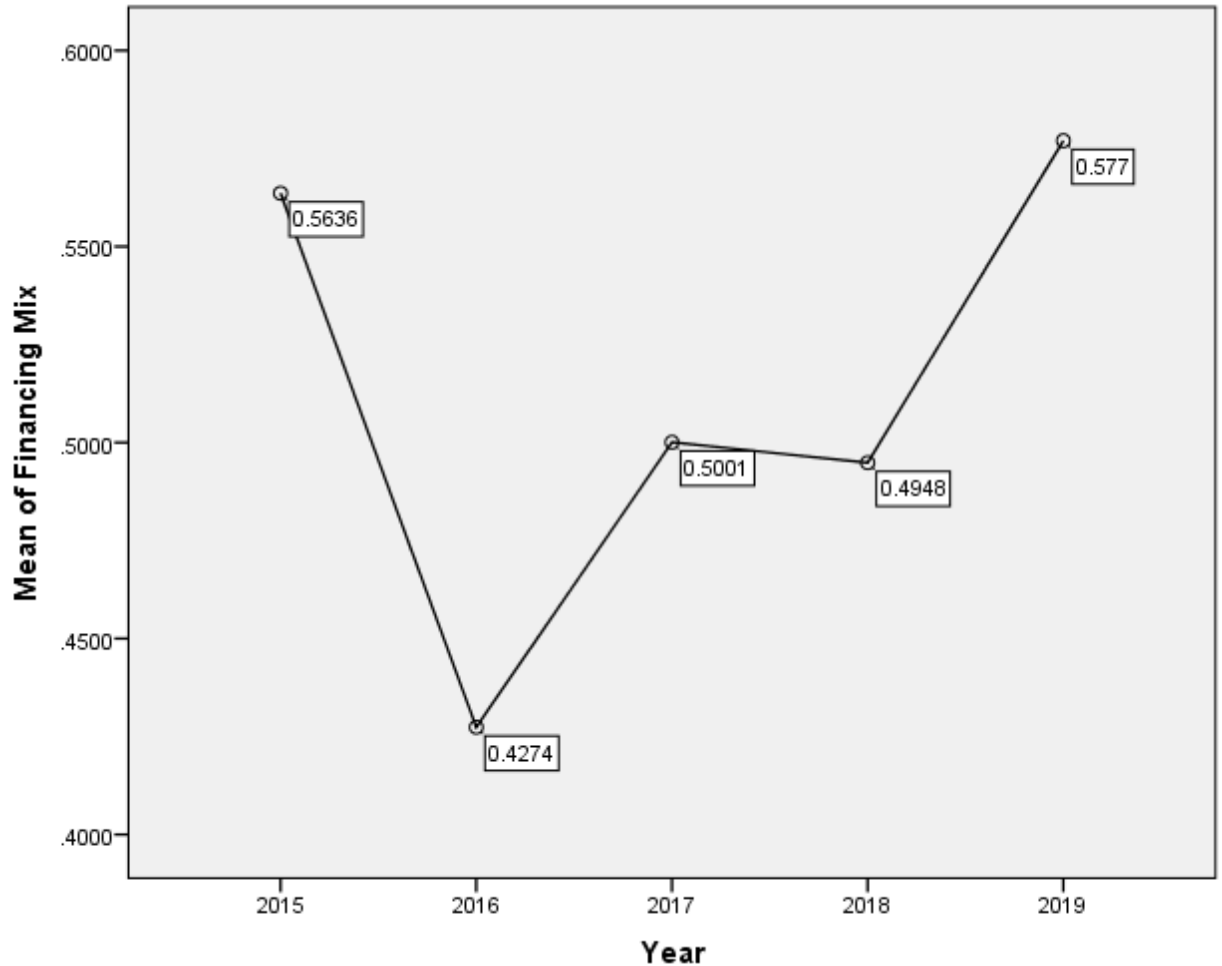


Figure 4.1: Shows Financing Mix Trend

Source: Research Data, 2021

The ratio of the level of business leverage that shows what is financed through debt versus owner's funds dropped in 2016 and there was a gradual rise in the consecutive years of 2017, 2018 and 2019. The recorded ratio chronicled highest was in 2019 where the debt level was the highest showing that microfinance banks preferred debt over owner's funds as debt financing was cheaper. The

banks observed the hierarchical rule of financing, using equity financing as a last resort.

4.2.3 Trend for Credit Default Risk Management

The trend for Credit Default Risk Management factor is as shown in Figure 4.2.3.

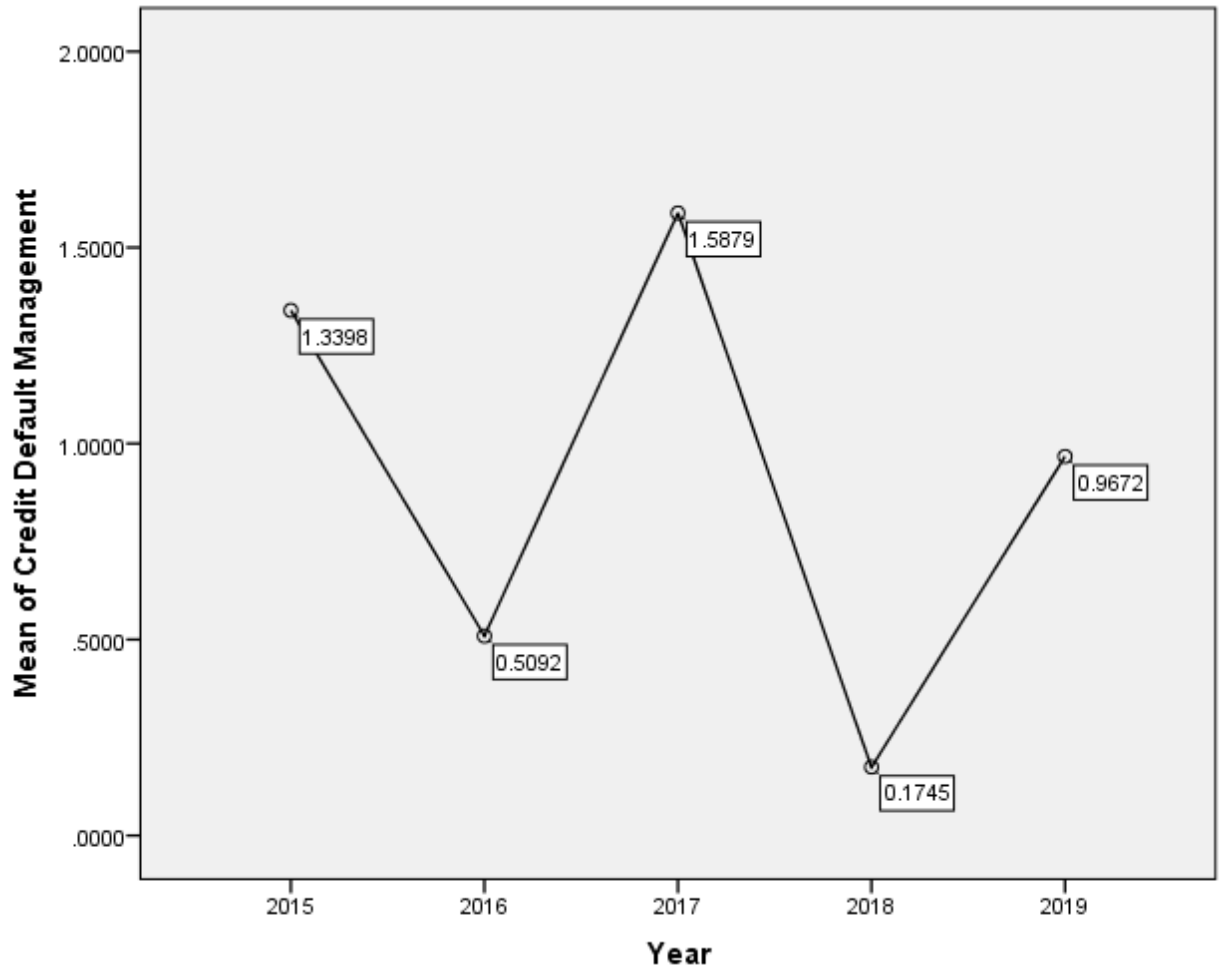


Figure 5.1: Shows Credit Default Risk Management Trend

Source: Research Data, 2021

The level of net income generated over interest payments dropped in 2016 and there was a fluctuation trend in the consecutive years of 2017, 2018 and 2019.

The highest net income generated over interest payments was in 2017 where the income level was the highest. This means that credit default risk was high in most of the period under study.

4.2.4 Trend for Asset and Liability Management

The trend for Asset and Liability Management factor is as shown in Figure 4.2.4.

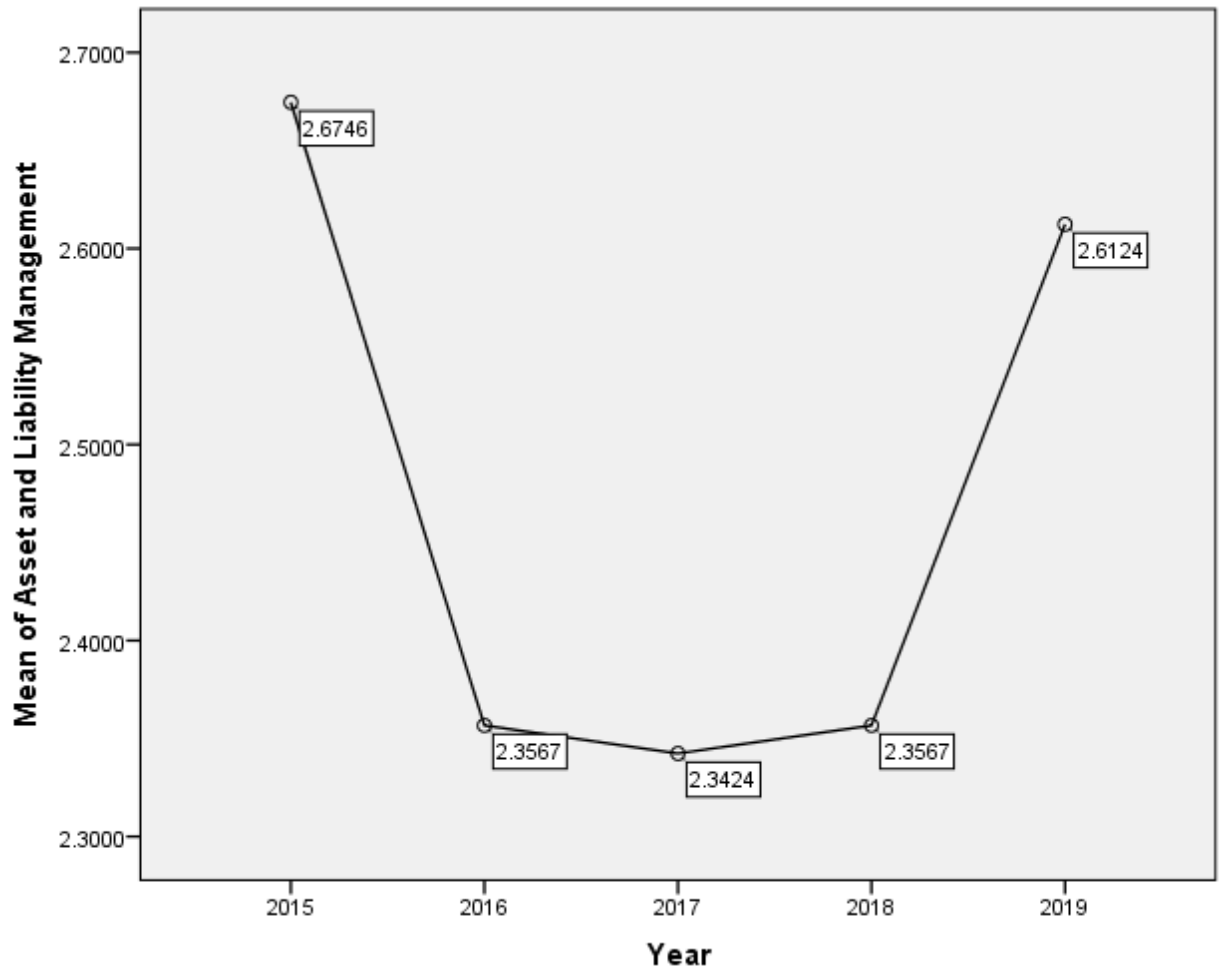


Figure 6.1: Shows Asset and Liability Management Trend

Source: Research Data, 2021

The number of tangible assets compared to outstanding debts dropped in 2016 & 2017 meaning that the available assets could not cover outstanding debts for that

period, thus the MFBs were not operating well. There was a gradual rise in the consecutive years of 2018 and 2019. The highest number of tangible assets compared to outstanding debts was in 2015 where the assets value was the highest.

4.2.5 Trend for Financial Performance

The trend for financial income factor is as shown in Figure 4.2.5.

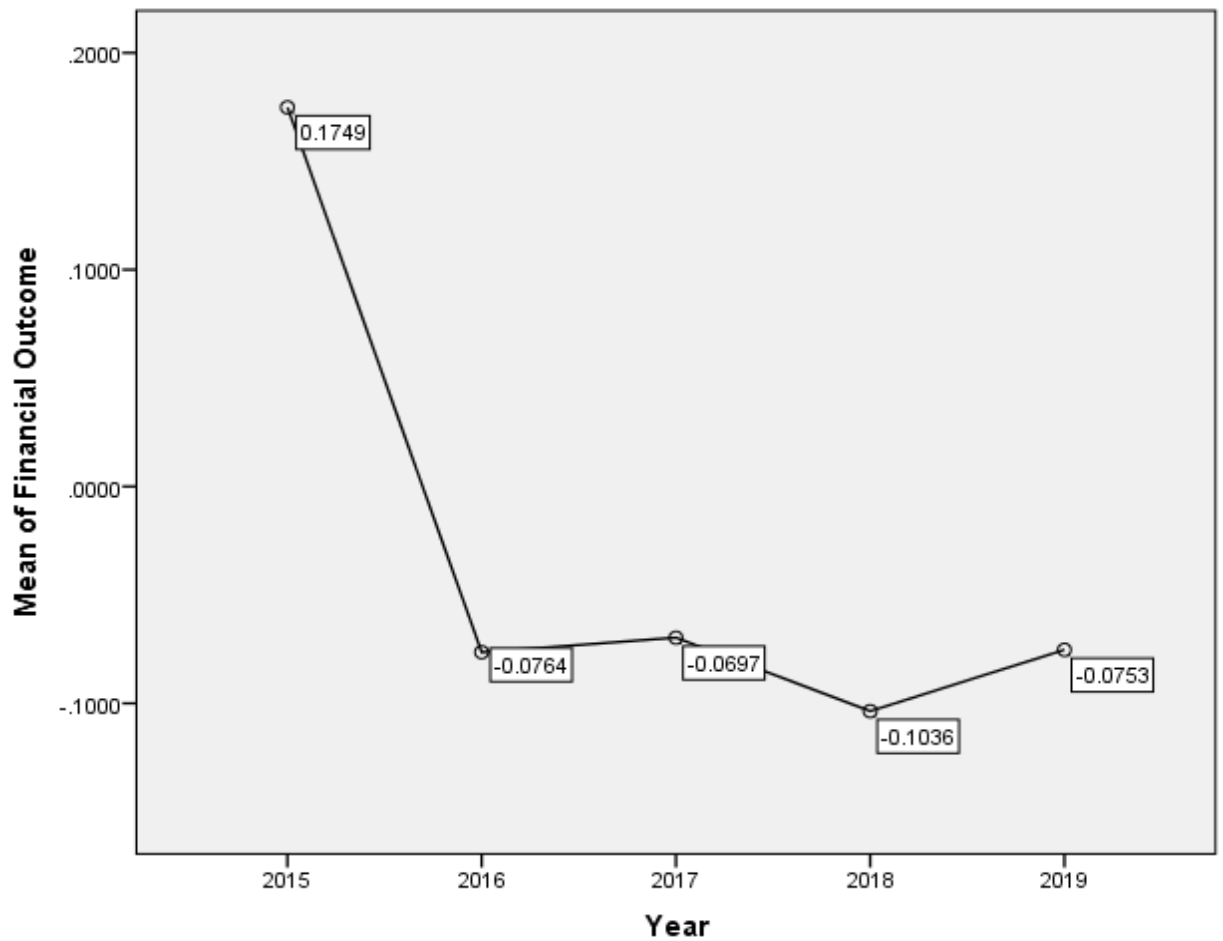


Figure 7.1: Shows Financial Performance Trend

Source: Research Data, 2021

The extent of profitability expressed in terms of percentage of total net income over total assets generated dropped in 2016, 2017 & 2018 and there was a rise in the year 2019. The highest profitability was in 2015 where the percentage of total net income over total assets generated was the highest.

4.2.6 Trend for Firm Size

The trend for firm size indicating growth as measured through total assets is as shown in Figure 4.2.6.

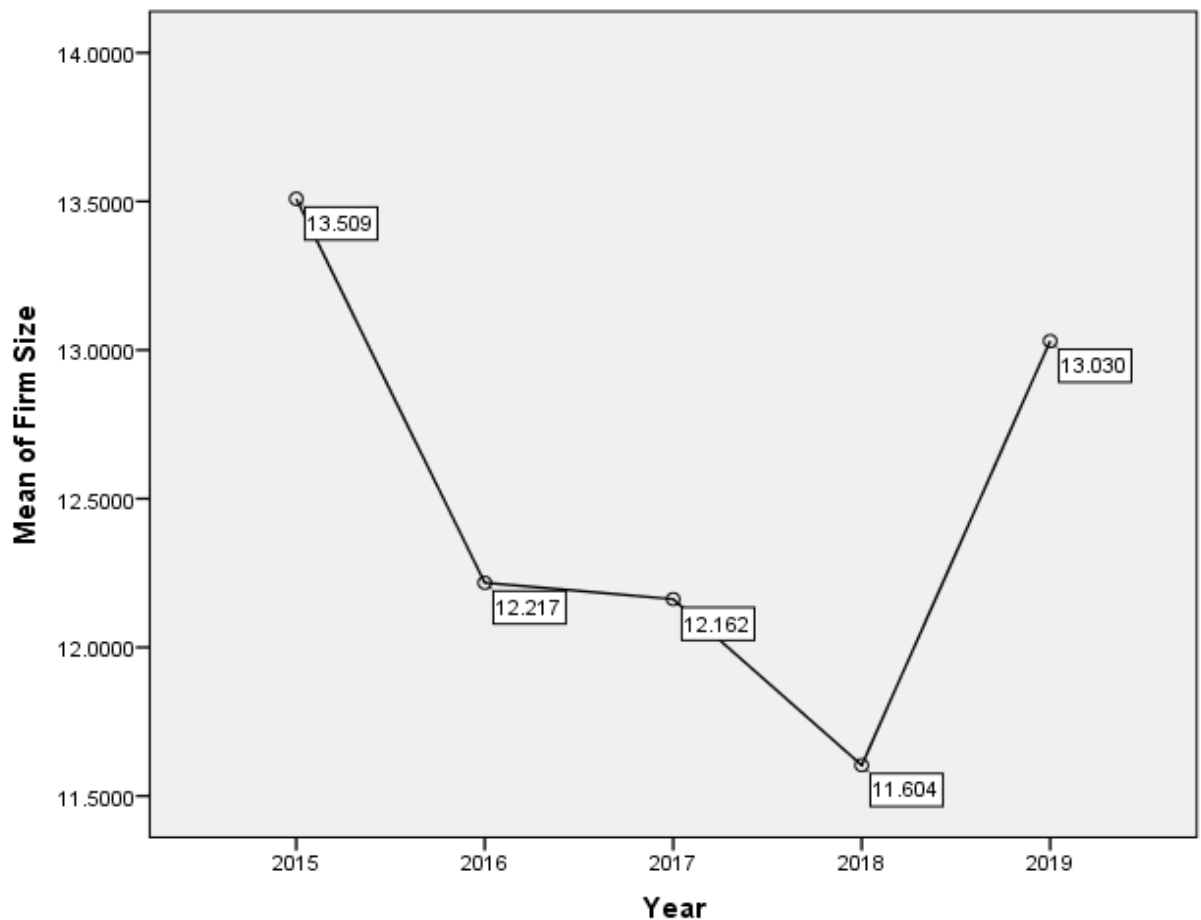


Figure 8.1: Shows Standard Firm Size (Growth)

Source: Research Data, 2021

The firm growth value dropped in 2016, 2017 & 2018 and there was a rise in the year 2019. The highest firm growth value was in 2015. This shows that the total number of assets was higher in 2015 and kept through to year 2018 but improved in 2019.

4.3 Diagnostic Tests

The study used diagnostic tests to determine the suitability of the data used and similarly study the distribution and suitability of the data to make inferences. Specifically, Multicollinearity, heteroscedasticity and normality test were conducted.

4.3.1 Multicollinearity Test

The report's multicollinearity analysis is verified by examining the tolerance scores with collinearity to verify that the presumption is not broken (Asteriou & Hall, 2011). The Variance Inflated Factor (VIF) was used to measure the variability in the inflated regression coefficients when contrasted to non-linearity related predictor parameters. A VIF of 1 shows no correlation, a VIF of 1-5 suggests intermediate correlation, and a VIF of 5-10 indicates strong correlation. The independent factors had a VIF with less than 10, and the average VIF of 1.1934 indicated that the factors were not linearly related, indicating that multicollinearity is also not an issue.

Table 4.3 Multicollinearity Test

	Tolerance	VIF
Board characteristics	0.963	1.038
Financing Mix	0.962	1.039
Credit Default Management	0.945	1.058
Asset and Liability Management	0.923	1.084
Firm Size	0.881	1.135

Source: Research Data, 2021

From the results, all the variables had a VIF of less than 10 hence there was no multicollinearity problem, therefore the data was suitable for analysis.

4.3.2 Normality test

Normality is important when it comes to knowing the distribution form and helps to predict the reliable variables (Gel, Miao & Gastwirth 2009). Normality in parametric experiments is a critical feature. According to the normality assumption, residuals are normally spread with a mean of zero (Lind, Marchal & Wathen, 2012). The normality assumption of the residuals will be verified if the measured values of residual in the normal probability curve are reasonably near to a straight line formed from the lower left to the upper right of the graph.

Table 4.4 Normality Test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Board characteristics	0.373	131	0.986	0.611	131	0.067
Financing Mix	0.288	131	0.089	0.599	131	0.073
Credit Default Management	0.26	131	0.156	0.618	131	0.214
Asset and Liability Management	0.316	131	0.425	0.475	131	0.329
Firm size	0.212	131	0.372	0.756	131	0.413
Financial performance	0.446	131	0.649	0.415	131	0.781

Source: Research Data, 2021

The results in Table 4.3 showed that the significant values of all the variables was greater than 0.05 which imply that the data is normally distributed.

4.3.3 Heteroscedasticity Test

When the magnitude of the standard error varies among inputs of an independent factor, heteroscedasticity is evident (Fletcher, *et al.*, 2012). Whenever the residuals really aren't equally distributed along the line, heteroscedasticity is present. More rigorous analyses for heteroscedasticity should then be conducted when the distribution of residuals seems to vary significantly from normal (Behm,

Edmonds, Harmon & Ives 2013). For the purpose of testing heteroscedasticity in this study, Breusch Pagan Test was performed in order to calculate group wise heteroscedasticity in the residuals. The heteroscedasticity analysis was used to see whether the error components in the panel data were associated across observations (Long & Ervin, 2000). As a rule of thumb, if the p value is less than 0.05, the data has the problem of heteroscedasticity.

Table 4.5 Heteroscedasticity Test

Breusch-Pagan test for heteroscedasticity	
chi2(1)	1.16
Prob > chi2	0.2817

Source: Research Data, 2021

We fail to reject the null hypotheses and reject the alternate hypothesis because the p-value is 0.1311, which is higher than 0.05. Hence, there was no apparent heteroscedasticity.

4.4 Multiple Regression Analysis

The study sought to find out the relationship between: board characteristics, financing mix, credit default risk management, assets and liabilities management and financial performance of microfinance banks in Kenya. The hypotheses were tested using multiple regression analysis and were stated as follows: Ho: There is no significant relationship between: board characteristics, financing mix, credit default risk management, assets and liabilities management and

financial performance of microfinance banks in Kenya at 0.05% level of significance.

4.4.1 Financial Management Practices and Financial Performance

Regression analysis establishes a link between two or more factors: a dependent factor whose value must be forecasted and an independent factor (or factors) about which information is known. The application of multiple regression determines the predictive power of the financial management practices and their strength in explaining financial performance. Tables 4.6, 4.7 and 4.8 display the regression results of the study.

Table 4.6 Model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.377	0.142	0.085	0.473804

Source: Research Data, 2021

From the study findings, board characteristics, financing mix, credit default risk management, assets and liabilities management were found to be satisfactory variables in explaining financial performance of microfinance banks in Kenya. From Table 4.5, the adjusted R square value of 0.085 is an indication that financial management practices accounted for 8.5 percent of variation on the financial performance of microfinance banks in Kenya.

Table 4.7 ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.227	4	0.557	2.48	.048
Residual	13.469	60	0.224		
Total	15.697	64			

Source: Research Data, 2021

From table 4.7 the model is significant as indicated by the F statistics and probability value of (F=2.48, p = 0.048) which is less than the critical value of 0.05. This is an indication that financial management practices overall accounts for financial performance of microfinance banks in Kenya. Hence, the model is a good fit.

4.4.2 Hypotheses Testing

Regression coefficients were used in hypothesis testing for the study variables.

Table 4.8 Coefficients of regression

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.674	0.837		-0.805	0.424
Board Characteristics	-0.827	0.318	-0.311	-2.601	0.012
Financing Mix	0.516	0.204	0.305	2.538	0.014
Credit Default Management	0.066	0.024	0.323	2.706	0.009
Asset and Liability Management	0.216	0.071	0.356	3.026	0.004

Source: Research Data, 2021

Therefore,

$$Y = -0.674 - 0.827X_1 + 0.516X_2 + 0.066X_3 + 0.216X_4$$

Hence, this translates to:

**Financial performance = -0.674 - 0.827 Board Characteristics +0.516
Financing Mix +0.066 Credit Default Management +0.216 ALM.**

According to Table 4.8, board characteristics have a negatively significant effect on financial performance of microfinance banks in Kenya (= -0.827. $p = 0.012$). The null hypothesis claimed that board characteristics had no substantial influence on financial performance of microfinance banks in Kenya. As a result, this study rejected the null hypothesis and accepted the alternative hypothesis that board characteristics have a negative and substantial effect on financial performance of microfinance banks in Kenya. On the other hand, Ndegwa, Senaji, and Mugambi (2020) found a positive relationship between board features and financial combatant of deposit-taking SACCOs, where board design, board duration, and board expertise had a statistically significant and negative results on financial distress.

The main findings of Gafoor and Thyagarajan's (2018) study on the characteristics of board members and a bank's performance indicated a notable connection between the composition of the company board and the bank's effectiveness. The independence of the board of directors and the bank's performance had a positive and significant connection. According to Assenga *et al.* (2018), the gender diversity feature had a favorable effect on the companies' economic success; other variables such as board size, Ph.D. accomplishments, and external executives had no influence on the stated firms' financial outcomes.

The results found a strong and significant connection between funding mix and financial performance of microfinance banks in Kenya ($\beta = 0.516$, $p = 0.014$). The null hypothesis claimed that the financing mix had no effect on the financial performance of microfinance banks in Kenya. As a result, the null hypothesis was rejected, and it was discovered that financing mix had a substantial effect on the financial performance of microfinance banks in Kenya. Similarly, the results of Onsase *et al.* (2017) revealed that finance and investment policies had a significant effect on financial performance. They also have an impact on the portfolio quality of the business. SACCOs, according to Njeru (2012), utilize a mix of financial strategies and plans to optimize member equity. When properly applied, they have resulted in improved SACCO profitability and resource management.

In terms of credit default management, the results indicate a favorable but small effect on the financial performance of microfinance banks in Kenya ($\beta = 0.066$, $p = 0.009$). Credit default management has no substantial impact on the financial performance of microfinance banks in Kenya, according to the null hypothesis. As a result, this research fails to reject the null hypothesis and concludes that credit default management has no substantial impact on the financial performance of microfinance banks in Kenya. Similarly, Ndyagyenda's (2020) results indicated a positive relationship between factors, leading to the conclusion that credit appraisal is a significant determinant of a bank's survival and profitability, thereby affecting its performance. The results of

Eminike *et al.* (2018) revealed a significant, well-structured relationship between the identification of associated hazards, credit risk assessment, and MFI financial performance. Monitoring credit risk and reducing credit risk, on the other hand, showed a fairly substantial positive relationship with the MFIs' financial outcomes.

The results indicate that asset and liability management had a positive and significant effect on financial performance of microfinance banks in Kenya ($\beta = 0.216$, $p = 0.004$) thus portraying a substantial influence on financial performance of microfinance banks. Therefore, the null hypothesis was rejected and the alternative hypothesis adopted. On a similar study, Owusu and Alhassan (2020) discovered that profitability is closely related to financial statements, and that national banks had a greater rate of return on assets than foreign banks. Since they are in charge of managing the development of liquid and liquidity concerns, Odhiambo (2006) found a noteworthy finding in that bank liquidity is challenged in two unique ways. He ended by suggesting that banks must restructure their liquidity management methods in order to regulate their liquidity risks and their position as liquidity providers.

4.4.3 Test for Moderating Effect

Regression results with moderating effect are as displayed below.

Table 4.9 Model Summary after Moderation

R	R Square	Adjusted R Square	Std. Error of the Estimate
.414	0.171	0.101	0.469537

Source: Research Data, 2021

From Table 4.9, the adjusted R squared value of 0.101 shows that the model accounted for 10.1 percent of variance on the financial performance of the Kenyan microfinance banks. This therefore means that the moderating variable significantly influence the relationship between financial management practices and financial performance of microfinance banks in Kenya.

Table 4.10 ANOVA after Moderation

	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.689	5	0.538	2.439	.045
Residual	13.007	59	0.22		
Total	15.697	64			

Source: Research Data, 2021

From Table 4.10 above, p value of 0.000 means the variables considered in this study fit into the regression model since ($P < 0.005$), hence the model was significant. After moderation the F statistics (2.439) remain significant implying that there is moderating effect of firm size on the relationship between financial management practices and financial performance of the Kenyan microfinance institutions. The findings reveal that the R-squared value increased from 0.142 to 0.171 significantly ($p\text{-value} = 0.000$). This implies that firm size is a significant

moderator of the relationship between financial management practices on financial performance of the Kenyan microfinance institutions.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter covers the summary of major findings, conclusions and recommendations of the study. Descriptive statistics and regression analysis were conducted to show the relationship between the study variables. The chapter also presents suggestions for further studies. The analyzed data was arranged under themes that reflect the research objectives.

5.2 Summary

The study sought to determine the effect of financial management practices on microfinance banks' financial performance in Kenya. The specific objectives were: To evaluate the effect of board characteristics on the financial performance of microfinance banks in Kenya ; To determine the effect of financing mix on the financial performance of microfinance banks in Kenya; To evaluate the effect of credit default risk management on the financial performance of microfinance banks in Kenya; To establish the effect of assets and liabilities management on the financial performance of microfinance banks in Kenya; To determine the moderating effect of firm size on the relationship between financial management practices and microfinance banks' financial performance in Kenya. This study used explanatory research design. The target population for this study comprised of 13 microfinance banks regulated and operating under the Central Bank of Kenya.

The study sought to find out the effect of financial management practices on microfinance banks' financial performance in Kenya. The findings of this study indicated a positive effect of financial management practices on microfinance banks' financial performance in Kenya. This implies that improved financial management practices leads to enhanced financial performance of microfinance banks. The standard deviation for the female non-executive directors was higher than the mean implying that the variation in the institution boards' composition was high. Moreover, the number of non-executive directors in companies is high, compared to the executive board composition.

There was a high standard deviation which indicates a large variation in debt levels in the companies. The mean current liabilities had a high standard deviation suggesting a large variation in current liabilities amounts in the institutions. The mean short-term debt and standard deviation showed that some institutions were having high amounts of short-term debts with some having low debt levels. There was a high deviation in the value of liquid assets in the institutions assessed. Board characteristics had a negative and significant relationship with financial performance of microfinance banks in Kenya.

On financing mix, the findings document a positive and significant relationship with financial performance of the microfinance banks. Regarding the credit default management, the findings showed had a positive but insignificant influence on financial performance of the microfinance banks. On

asset and liability management, the key findings revealed that there was a positive and significant relationship with financial performance of the microfinance banks.

The findings indicate that the R-squared value increased significantly after including the moderation effect of firm size in the analysis. This implies that firm size is a significant moderator of the relationship between financial management practices on financial performance of microfinance banks in Kenya.

5.3 Conclusion

Based on the findings, the study concludes that board characteristics, financing mix, credit default risk management, assets and liabilities management have a positive and significant effect on financial performance of microfinance banks in Kenya. It was concluded that increasing the levels of board characteristics, financing mix, credit default risk management, assets and liabilities management increases the financial performance of microfinance banks in Kenya. The first objective sought to evaluate the effect of board characteristics on the financial performance of microfinance banks in Kenya. The study found that Board characteristics had a negative and significant relationship with financial performance of microfinance banks in Kenya. This implies that a change in board characteristics in terms of executive to non-executive ratio in management would lead to a positive change in financial performance.

The second objective was to determine the effect of financing mix on the financial performance of microfinance banks in Kenya. On financing mix,

the findings indicate that there was a positive and significant effect on financial performance of microfinance banks in Kenya. This indicates that a change in financing mix in terms of total liabilities and total shareholders' equity would lead to a positive change in financial performance. The third objective was to evaluate the effect of credit default risk management on the financial performance of microfinance banks in Kenya. Regarding this variable, the findings revealed that credit default management had a positive but insignificant influence on financial performance of microfinance banks in Kenya. This implies that an increase in Earnings before taxes and interests would lead to a positive change in financial performance.

The fourth objective was to establish the effect of assets and liabilities management on the financial performance of microfinance banks in Kenya. On asset and liability management, the findings indicate that there was a positive and significant relationship with financial performance of microfinance banks in Kenya. This implies that a change in asset and liability management strategies positively will lead to a positive change in financial performance. The fifth objective was to determine the moderating effect of firm size on the relationship between financial management practices and microfinance banks' financial performance in Kenya. The findings reveal that firm size is a significant moderator of the relationship between financial management practices on financial performance of microfinance banks in Kenya. Therefore the size of the firm have a significant effect on the financial management practices applied to control financial performance.

5.4 Recommendations

Firms must strive in maintaining high number of non-executive members compared with executive numbers in their boards as this will prevent conflict of interests that would be caused by executive members. Firms must also form a team that will support research and keep them informed about the role of gender diversity features. This will reverse the unfavorable trends or effects that the estimated results have caused. In fact, a more diverse board of directors improves comprehension of markets that are distinctive in terms of expanding creativity and innovativeness, as well as decision-making by allowing for the consideration of many other options. This should be done with the goal of choosing more productive members of the board and improving the financial firm's image. This might help in reducing overhead expenses of satisfying the constitution's governance obligations, reversing the downward trend in financial performance.

Financial firms' management should attempt to fund their investment operations using retained profits first, with debt as a last resort, since this is compatible with the pecking order principle, which asserts that funding sources are prioritized. Internal finance will be preferred above external finance by a company. Internal funding is derived from retained profits generated by operational operations. It has been noticed that when credit risk rises, the bank's financial performance in terms of profits declines, which is the bank's main purpose via loan creation. Microfinance banks managers should have a strategy for reducing credit risk and thereby maintaining performance. It was discovered that a bank's liquidity has an

impact on its financial operations. The ROA was strongly influenced by the larger value of current obligations or current assets. To boost their performance, bank management must maintain high levels of working capital optimism. According to the report, banks should work on their capital to ensure that it is enough and sufficient for their operations. Capital should have a sufficient and long-term worth.

Microfinance banks should employ best strategies of managing credit default risks. Such would include monitoring the debt's portfolio for trends and warning signs while also setting credit limits, rating criteria and ensuring compliance to credit policy during administration of loans. On the other hand, the MFBs should make effort in ensuring that their net income and cash flow is efficiently generated to avoid defaulting their loan repayment to their financial institutions where they borrow money and to maintain enough cash to lend their clients.

Microfinance banks should aim at having an ALM policy which will guide in effectively and efficiently management of their assets and liabilities to alleviate financial risks such as overrated interest rates, liquidity risk, insufficient profit margins, and ineffective use of cash. As a result, they will acquire resilience to exterior tremors that may affect their financial performance. The essence, therefore, is to maximize their earnings and return on assets on a low level risk.

5.5 Contribution to Knowledge

This study revealed that proper and effective financial management practices covering the board characteristics, financing mix, credit default risk management,

assets and liabilities management will advance and increase organizational financial performance. The research study equally documents that maintaining levels of assets and liquidity for protection against financial crisis leads to firm financial performance. This study further found that an improvement in the structure of management board have a significant effect on the performance financially. Financial strategies in balancing revenues, assets, and liabilities in the financial firms have an overall effect on the financial performance.

5.6 Limitations of the Study

The study suffered the limitations of unavailability of data in some banks. This reduced the number of years used for the research results analysis and conclusion. The study only concentrated on microfinance banks which are just a part of the microfinance sector. Findings could be different in other sectors. In data collection, there were challenges of low network on internet on several occasions, therefore taking a while before downloading and compiling all the data required for the study.

5.7 Areas for Future Research

This study focused on the board characteristics, financing mix, credit default risk management, assets and liabilities management. These are not the only financial management practices that affect financial performance of microfinance banks thus creating a gap. Moreover, financial management practices can also affect the performance of other financial and non-financial sectors. The study recommends maintenance of high levels of working capital to ensure sufficiency and

effectiveness of operations. The issue of working capital is not captured in the study, thus creating a gap for further research.

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APPENDICES

Appendix I: List of Licensed MFBs in Kenya

S/NO.	MICROFINANCE BANK
1	FAULU MICROFINANCE BANK LTD
2	RAFIKI MICROFINANCE BANK LTD
3	KENYA WOMEN MICROFINANE BANK LTD
4	CARITAS MICROFINANCE BANK LTD
5	CHOICE MICROFINANCE BANK LTD
6	SUMAC MICROFINANCE BANK LTD
7	UWEZO MICROFINANCE BANK LTD
8	MAISHA MICROFINANCE BANK LTD
9	SMEP MICROFINANCE BANK LTD
10	REMU MICROFINANCE BANK LTD
11	U & I MICROFINANCE BANK LTD
12	DARAJA MICROFINANCE BANK LTD
13	CENTURY MICROFINANCE BANK LTD

Source: Central Bank of Kenya (2019)

Appendix II – Data set

	Year	No of Executiv e directors (male)	No of Executiv e directors (female)	No of non- Executiv e directors (male)	No of non- Executiv e directors (female)	total debts	EBIT	Int	TA
FAULU	2015					2102425			
		2	1	2	1	0	447000	284240	25323666
	2016					2302683			
		2	1	2	1	4	480000	382000	27368909
	2017					2084027			
		2	1	2	1	5	721000	499000	25325157
RAFIKI	2018					2376105			
		2	1	2	1	7	772081	498466	27224936
	2019					2590600	101300		
		2	1	2	1	0	0	556000	29682000
	2015					6686000	161000	115000	7724
		2	0	2	1		-	131000	7327000
KWFT	2016					6581000	330000		
		2	0	2	1		-		
	2017					6310000	346000	105836	6518519
		2	0	2	1		-		
	2018					4760000	274000	64000	6050000
		2	0	2	1		4668000	41000	46000
CARITAS	2019					2716884	125675		5935000
		2	1	2	6	2	7	699012	31861126
	2016					2739768	139894	107200	
		2	1	2	6	3	3	6	32153420
	2017					2435750	107100		
		2	1	2	6	4	0	979828	28930905
CHOICE	2018					2551057	-		
		2	1	2	6	2	248104	796828	29581646
	2019					2676687			
		2	1	2	6	8	381247	906023	30612588
	2015					98000	-60000	0	186000
		2	0	3	1		303000	-74000	0
SUMAC	2016					605000	-70000	1000	879000
		2	0	3	1		981000	-83000	3000
	2018					1471000	-44000	7000	1.712,000
		2	0	3	0		21000	-40000	0
	2015					76000	-49000	1000	122000
		2	0	3	0		99000	-53000	1000
SUMAC	2017					128000	-58000	1000	98000
		2	0	3	0		114000	-27000	2000
	2019					400000	34000	21000	608000
		3	0	1	3		557000	57000	39000
	2016					886000	65000	54000	1137000
		3	0	1	3		1211000	128000	112000
SUMAC	2018					1685000	151000	133000	2.013,000
		3	0	1	3				

UWEZO	2015	1	2	4	1	47000	2000	0	226000	
	2016	1	2	4	1	36,000	3,000	0	214,000	
	2017	1	2	4	1	42000	-12000	0	212000	
	2018	1	2	4	1	82000	22000	0	225000	
	2019	1	2	4	1	51000	-71000	0	168000	
MAISHA	2015	2	1	3	0	0	0	0	0	
	2016	2	1	3	0	82,000	-47,000	0	171,000	
	2017	2	1	3	0	236000	-50000	0	302000	
	2018	2	1	3	0	280000	199000	0	289000	
	2019	2	1	3	0	465000	-38000	0	1264000	
SM EP	2015	2	1	2	1	1947000	33000	37000	2592000	
	2016	2	1	2	1	2,126,00	0	-94,000	52,000	2,659,000
	2017	2	1	2	1	2232000	-54000	67000	2734000	
	2018	2	1	2	1	2428367	42000	58000	2941651	
	2019	2	1	2	1	2809888	83000	63000	3313950	
REMU	2015	3	0	3	2	202000	-21000	0	397000	
	2016	3	0	3	2	179000	-9000	8000	362000	
	2017	3	0	3	2	187000	-17000	8000	354000	
	2018	3	0	3	2	280000	-32000	10000	433000	
	2019	3	0	3	2	259000	-20000	14000	406000	
U&1	2015	3	0	4	0	77948	11320	2017	184484	
	2016	3	0	4	0	233161	16000	4000	351357	
	2017	3	0	4	0	244197	22000	6281	405717	
	2018	3	0	4	0	365085	21956	9000	533938	
	2019	3	0	4	0	513000	20000	13000	6.86E+08	
DARAJA	2015	2	1	3	1	16000	-35000	0	83000	
	2016	2	1	3	1	98000	-45000	0	180000	
	2017	2	1	3	1	115,000	-60,000	0	168,000	
	2018	2	1	3	1	149000	-44000	0	172000	
	2019	2	1	3	1	142000	-46000	0	133000	
CENTURY	2015	3	0	3	2	144000	-58000	0	197000	
	2016	3	0	3	2	3123145	-41000	-54119	225000	
	2017	3	0	3	2	275,000	-63,000	0	4,785,572	
	2018	3	0	3	2	365000	-25000	0	431000	
	2019	3	0	3	2	326000	-43000	0	348000	

Appendix III – Data Review Guide

	IA	CL	STD	Net Income	TLA	Firm Size
FAULU	155000	19360672	2670526	115000	22768621	17.04725
	565000	21758037	4386811	42659	22072308	17.12492
	1290000	20066474	3571774	143000	20337467	17.04731
	1336000	23033936	4430520	180906	24881000	17.11964
	1347000	24458000	4366000	312000	27116000	17.20605
RAFIKI	50000	5735000	1544000	29000	7055000	8.952088
	54000	4996000	2011000	-298000	6884000	15.80708
	54000	4478000	1954000	-329000	6524000	15.69016
	7000	3018000	723000	-192000	5649000	15.61557
	55000	3211000	635000	-3000	5621000	15.59638
KWFT	465000	26418614	8205516	395000	28742611	17.2769
	98760	26230232	9074097	223965	2.29E+08	17.28603
	103450	23147521	6773851	19000	25716378	17.18042
	125590	24227242	8087985	-827123	26260169	17.20266
	103949	24021150	8247165	-401585	25481333	17.23692
CARITALS	15000	85000	0	-60000	141000	12.1335
	21000	287000	0	-74000	507000	13.26038
	22000	585000	20000	-71000	819000	13.68654
	16000	960000	26000	-85000	1155000	14.03384
	32000	1432000	79000	-51000	1555000	0
CHOICE	20000	17000	0	-29000	33000	11.25156
	16000	71000	5000	-35000	68000	11.71178
	26000	91000	10000	-38000	102000	11.82041
	11000	120000	12000	-42000	73000	11.49272
	23000	102000	19000	-29000	63000	11.2772
SUMAC	24000	279000	144000	7000	492000	13.31793
	46000	460000	227000	14000	695000	13.59611
	46000	808000	395000	5000	1030000	13.9439
	25000	1125000	625000	5000	1422000	14.24078
	60000	1431000	800000	9000	1900000	0
UWEZO	8000	42000	0	200	194000	12.32829
	3,000	29,000	0	4,000	197,000	12.27373
	17000	29000	0	-9000	182000	12.26434
	4000	16000	0	-27000	202000	12.32386
	17000	25000	0	-31000	157000	12.03172
MAISHA	0	0	0	0	0	0
	14,000	78,000	0	-31,000	128,000	12.04942
	13000	231000	0	-42000	262000	12.61818
	14000	262000	0	-119000	247000	12.57418

	15000	446000	0	-38000	376000	14.04979
SM EP	72000	1863000	576000	-1000	2080000	14.76794
	94,000	2,075,000	624,000	-134,000	2,233,000	14.79346
	109000	2186000	579000	-32000	2314000	14.82128
	29490	2382666	486689	-22000	2420422	14.89448
	154000	2624000	480845	6274	2836000	15.01365
REMU	9000	198000	40000	-15000	344000	12.89169
	9000	173000	67000	-12000	324000	12.7994
	10000	176000	52000	-17000	338000	12.77705
	2000	268000	139000	-14000	418000	12.97849
	1000	232000	133000	-13000	397000	12.91411
U&1	2000	76299	17595	7000	173806	12.12532
	8000	228448	19039	7344	329000	12.76956
	8000	238875	39212	11240	384509	12.91341
	2153	358485	72145	8386	514479	13.18804
	9170	511000	155000	4000	663690	20.34697
DARAJA	15000	14000	0	-45000	42000	11.3266
	16000	160000	0	-28000	122000	12.10071
	12,000	95,000	0	-47,000	139,000	12.03172
	9000	126000	5000	-32000	150000	12.05525
	6000	107000	0	-32000	115000	11.7981
CENTURY	26000	569408	22000	-53000	3723479	12.19096
	12000	3123145	19000	-41000	153000	12.32386
	10,000	240,000	18,000	-63,000	356,430	15.38112
	5000	342000	202378	-25000	342503	12.97386
	6000	275000	19000	-43000	305000	12.75996

Source: Research Data, 2021

KEY:

- (i) EBIT - Earnings Before Interest and Tax
- (ii) TA - Total Assets
- (iii) IA - Intangible Assets
- (iv) CL - Current Liabilities
- (v) STD - Short-term Debt
- (vi) TLA - Total Liquid Assets