THE EFFECT OF FIRM SIZE ON PROFITABILITY OF MICROFINANCE BANKS IN KENYA

BY

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DECLARATION

This research project is my original work and has not been presented in this or any other University for examination or any other purposes.

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This research project has been submitted for examination with my approval as the University Supervisor

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DEDICATION

I dedicate this work to my family, my wife, Vidy and my children, Susan and Brian. I am grateful that you have been patient, understanding and given me support during the whole period of this programme.

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LIST OF ABBREVIATIONS AND ACRONYMS

AMFI Association of Microfinance Institutions

ANOVA Analysis of Variance

ATC Average Total Costs

AVC Average Variable Costs.

CBK Central Bank of Kenya

LPE Proportionate Effects

MC Marginal Cost

MFB Microfinance Banks

SPSS Statistical Package for Social Sciences

ABSTRACT

Large banks are complex and diversified; they have different product lines and integrated services that enable them to be more efficient and to invest in huge investments that are risky and long-term in nature. Such firms benefit from economies of scale as compared to smaller firms because their average production costs are less and while their operational activities are efficient. Descriptive research design was used to examine the effect of bank size on profitability. The population for this study involved nine Microfinance banks that were operational during the study period. A period of five years was (2011-2015) covered and data was obtained from CBK website. Analysis of data was done with the help of descriptive and inferential statistics. It was found that bank size, customer deposits, operating efficiency increased with the study period. Non-performing loans were found to increase posing credit risks to MFBs. A strong positive correlation was found to exist between operating efficiency and profitability. In addition, a weak correlation between bank size and profitability was found to exist. Further, it was found that operating efficiency and bank size were found to be significant as their probability ratios were lower than five percent. Customer deposits, asset quality and liquidity were insignificant as their probability ratios were higher than five percent. Microfinance banks ought to increase their network of branches countrywide to attract new customers to open new accounts and in so doing increase their deposits. This will increase the pool of funds for investment and impact positively on the profitability of MFBs. Some data from specific variables such as growth in customer deposits were missing in the year 2010 of the annual statements. This affected the quality of the sources of data and adequacy to enable the researcher to establish accurate and more findings on the nexus between bank size and profitability MFBs. A duplication of this study should be executed in a different industry other than the banking sector such as the manufacturing firms. This will give room for comparison that might lead future researchers to a more plausible conclusion so that relevant recommendations can be reached.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Banks are essential drivers of economic growth of a country. Banks provide credit facilities, deposits that aid to facilitate business transactions. Globally, the banking industry has faced a rapid growth as result of the adoption of banking technologies and financial innovations. This has led to the diversification of products and services from traditional loans and deposit services to for example; international banking services, use of credit card services, and payroll accounting, and data processing (Hirtle & Christopher, 2011). Although banks of all sizes offer credit facilities to its clients and small businesses, large and stable banks possess sufficient capital to cater for the credit needs of large firms; such banks offer more specialised and efficient services. Smaller firms have a high rate of growth as compared to large firms; they avoid risky investments and invest in short-term investments that require fewer investments. McGrath (2001) asserts that the reason why firms grow in size is because of several reasons which include economies of scale, efficiency gains due to technology, innovation and adoption of entry-deterring strategies.

Most firms enhance their growth to realise profitability (Christopher, 2006). Hirtle and Stiroh (2007) indicate that growth is sustainable when it's profitable. Kouser and Hassan (2014) argue that profitable growth is the basis for long-term competitive success and business value creation. Levine and Robert (2011), on the other-hand note that firm size influences growth; a large and stable firm has a high growth prospect since it can undertake risky investments that promise high returns. Such investments take long to mature since they are long-term in nature. However, this form of growth

might be slow in the short term and faster in the long term. Smaller firms exhibit a higher growth rate, they face various challenges due to increased demand as a result of recruiting new employees which mean that they have to acquire additional space, additional training materials and mechanisms for monitoring employees and additional funds for research and development. This impacts negatively on their profitability since most of their finances are a loss as these small firms try to establish a foundation to grow.

1.1.1 Firm Size

Bank size can be defined based on the assets held by the firm. According to Ramezani and Alan (2010), asset turnover is also a measure of firm size which is a ratio of average sales and total assets of the firm. Increase in the scale of bank operations minimises marginal costs in the range of production where economies of scale are optimal. Large firms have the competitive advantage through the benefits of economies of scale. This can be achieved through discounts from buying products and services in form of bulk. This enables such firms to offer quality products at a cheaper price than their competitors. 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 realise improved strategic diversification. A study by Akbas and Karaduman (2012) found out that larger firms tend to be more profitable as compared to smaller firms. Larger firms possess a high bargaining power over suppliers and distributors. Consequently, they benefit from setting prices above competitive price.

The size of a bank is affected by multiple factors which include laws and regulations in the banking industry. Laws that restrict the banking operations, interest rates on

customer deposits, and the rates charged for loans that limit the capability of commercial banks to compete for deposits and provision of banking services to customers. These restrictions might limit the competitive advantage of commercial banks with other banks in other areas or financial institutions (Kouser & Hassan, 2014).

Every firm size measure has advantages and disadvantages, and no measure can comprise all the traits of the firm size. Broadly speaking, total assets measure the total resources of the firm; market capitalization entails opportunities for growth of the firm and equity market conditions; total sales measure of sales product market competition. In practice, the measure to use depends on data availability. The choice of firm size measures also depends on the objective of the research. The reason why the researcher chose the firm size is because of the platform that it provides for growth and expansion of the firm, to name but a few, access to credit, stability and diversification. This study aimed at measuring the size of the bank using total assets logarithms because assets are considered as key components when measuring the size of the firm (Laffont and David, 2008).

1.1.2 Profitability

Charlene (2005) defines profit as an excess of revenues from expenses of an activity which is carried out over a period of time. Profitability can be referred to the ability of a firm to realise profits from its business operations. Profitability is an indication of how efficiently the management of a firm can make profit through maximum utilisation of available resources. One can also define profitability as the ability of an investment to make a return from its use. Consequently, profitability is perceived as

an index of efficiency; it is also regarded as an indicator of efficiency (Davidsson, Steffens, & Fitzsimmons 2009).

Other related terms that possess similar meaning with profitability include 'earnings', 'income', and margin. The ultimate goal for any organisation that engages in commercial business is to make profit. A firm that is able to make adequate profits is likely to expand and survive in the long-run. A profitable firm is able to survive in the long-term since it has excess money to invest in huge and profitable investments which promise high returns in the long-term. The top management should maximise their profitability to realise shareholders wealth which is a key corporate goal of the firm. Operational efficiency is regarded as an important determinant of the profitability of a firm. Moreover, there are other factors that affect a firm's profitability besides efficiency (Claeys & Vennet, 2008).

Profitability of the firm is determined by analysing the expenses and the income of the firm. Income is money that is obtained from selling products and services while expenses are costs incurred by the business when conducting its business. Some measures that are commonly used by the firm to determine profitability include; Return on Assets (ROA) and Return on Equity (ROE). ROA is a measure of how profitable the firm is relative to total assets, this measure gives a reflection of management's efficiency in utilisation of assets to generate income. This measure is a ratio of net profit and total assets. ROE is computed by dividing net income which is returned as a proportion of stakeholder's equity. This measure uses disclosures to evaluate firms' profitability by determining the amount of profits generated by the firm in relation to the amount of money that have been invested by the shareholders (Penman, 2007). This study will use ROA to measure the profitability of Microfinance

banks in Kenya. The selection of this measure is because the study seeks to establish profitability relative to the assets of Microfinance banks.

1.1.3 Relationship between Profitability and Firm Size.

Size is considered critical in explaining profitability of the firm, a number of researchers have investigated the effect of firm size on profitability as follows; Serrasqueiro et al (2008) concluded that there was no significant relationship between firm size and profitability. Ezeoha (2012) posits that larger firms are more advantageous because of economies of scale that enable them to be efficient in production. This gives them power over their suppliers, distributors and clients by setting prices above the competitive market price (Fiegenbaum & Karnani, 1991).

Even though bank size accrues several advantages, a study by De Haan and Scholtens (2013) found that there is no significant relationship between bank size and profitability of firms in Turkey. In contrast, a study by Berger (1997) depicts a linear relationship between the size of a firm and profitability of firms in Europe. It has been argued that large and stable firms invest in huge and risk ventures which accrue high returns in the long-run. In so doing, the firms might be exposed to liquidity risks which might amount to financial losses in the short-run. Smaller firms avoid long-term investments that are risky hence such firms are more liquid in the short-term but less profitable in the long-term because their returns are minimal.

By diversifying their investment portfolio, large firms are able to minimise their risks and ensure stability. Consequently, they can maintain and sustain their level of liquidity to fulfil their financial obligations. Large firms invest in modern technology and innovation thereby enhancing efficiency in business processes and procedures. This minimises costs and enhances the profitability of the firm (Kouser & Hassan,

2014).Larger firms are financially stable and mature and hence are able to generate more sales as a result of larger production capacity that will enable them to cut costs due to economies of scale (Banchuenvijit, 2012). Archarungroj and Hoshino (2012) assessed the relationship between firm size and profitability of firms that operated in Thailand; the results found that firm size was positively related to profitability. On the contrary, Goddard and Wilson (2009) claim that size may have no significant impact on profitability particularly if increase in size leads to diseconomies of scale.

1.1.4 Microfinance Banks in Kenya

Fly (2007) defines microfinance as the provision of financial services to the population at the base of the economic pyramid. These are mainly low-income earners, consumers and self-employed people. The main aim of microfinance institutions is to ensure that poor households have adequate access to high-quality financial services for example credit, savings, insurance and fund transfers. Microfinance Act, 2006 provides a supervisory and regulatory framework for Microfinance banks in Kenya. This act became active from 22 Many 2008, its main role being licensing and supervision of Microfinance banks. It enables Microfinance banks to mobilise customer deposits from the public and lend money to gain interest income which is one of their core activities (McIntosh, De Janvry & Sadoulet, 2005).

The Microfinance Act (2006) was revised by deleting the term institution which was then substituted to Microfinance bank licensed under this Act. Microfinance bank is a company that is licensed to conduct Microfinance bank business. This kind of a bank is licensed by Central Bank of Kenya (CBK). Association of Microfinance Institutions (AMFI) seeks to increase the capacity of the Kenyan Microfinance industry. The formation of AMFI was intended to ensure a binding voice to lobby Kenya

government for better policies and to share information and experiences with both local and global actors.

Over the last decade, Kenya has faced a rapid growth of Microfinance banks as a result of the adoption of new technology and financial innovation. This has led to the introduction of new products and services which has increased accessibility, flexibility and convenience of banking products and services. Financial liberalisation has promoted competition in the banking sector through fair and equitable banking practices with a strong emphasis on access to banking services. Customer needs to keep on changing; banks are looking for better ways to address these needs by tailoring their products or services to meet such needs.

1.2 Research Problem

Berger (1997) asserts that large banks are complex and diversified. They have different product lines and integrated services that enable them to be more efficient and to invest in huge investments that are risky and long-term in nature. Such firms benefit from economies of scales as compared to smaller firms because their average production costs are less and while their operational activities are efficient. This gives them a platform to grow and expand. In spite of these advantages that accrue from large firms, arguments have been raised on whether firm size contributes towards profitability of the firm. According to Hirtle and Stiroh (2007), larger firms easily access credit facilities from financial institutions since they attract more qualified and competent human capital which gives them an opportunity to invest and grow. Ezeoha (2008) argues that smaller firms can specialise since their functions and processes are less complex as compared to larger firms. This increases consumer confidence and ultimately leads to sales profitability.

The banking sector in Kenya especially Microfinance banks have had a tremendous growth; this growth is as a result of a myriad of factors. Kavoo (2013) notes that growth of Microfinance banks is as a result of banking innovations, technology and increased competition. Muronya (2013) indicates that liberalisation is a key contributor towards growth of commercial banks. Size is a key component in facilitating the growth of a bank because it is affected by the regulatory framework among other macroeconomic factors such as banking technologies and innovations and enhance efficiency, profitability and growth of a bank.

The relationship between a firm's size and its profitability has been a subject of conceptual and empirical discussion: Symeou (2012) examined the link between a firm's size and its profitability. The findings showed a statistically significant relationship between a firm's size and its profitability. In their study, De Haan and Scholtens (2013) concluded that growth and bank profitability were statistically insignificant. Akbas and Karaduman (2012) investigated the effect of firm's size on its profitability of Turkish manufacturing firms. The study found that there was no statistically significant link between a firm's size and its profitability.

Kimani (2014) examined the link between a firm's size and the profitability of manufacturing firms in Kenya, firm size was found to be negatively related to profitability. Kithuka (2013) found that firm size was statistically insignificant to asset growth of Nairobi Securities Exchange. Kariuki (2012) found an inverse relationship between a firm's size and its profitability for listed firms in Kenya. These studies Kimani (2014), Kithuka (2013) and Kariuki (2012) have limited themselves on the link on listed firms and commercial banks. Limited focus has been given on the link between bank size and profitability especially in Microfinance institutions in Kenya. This study, therefore ,aimed at closing the existing knowledge gap by attempting to

find an answer to the question: What is the relationship between bank size and profitability of Microfinance banks in Kenya?

1.3 Research Objective

To determine the relationship between bank size and profitability of Microfinance banks in Kenya.

1.4 Value of the Study

The research findings might be useful to Central Bank of Kenya and other policy makers in formulating policies that create an enabling environment for Microfinance banks to increase in their size and enhance profitability.

These study findings will be useful to Microfinance banks since they will learn and understand how bank size contributes to profitability. Commercial banks might find the study beneficial in increasing their knowledge on firm size and how it contributes to profitability. Further, they will understand the most appropriate ways to measure the profitability of commercial banks.

Students will understand bank size and profitability concepts as well as how the two variables relate. They will also learn the theories that support the study and their relevance. Researchers interested in this area of study might use these findings as a point of reference for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section of the study consists of the literature review for the study that covers the theories discussed in support of the study objective, the determinants affecting the profitability of banks and empirical studies that cover both local and global setting in support of the study variables (bank size and profitability).

2.2 Theoretical Framework

This section discusses the theories that anchor the study, Institutional Theory, Transactional Cost Theory and Agency Theory. These theories have been discussed in relation to the variables for the study, bank size and profitability.

2.2.1 Institutional Theory

The institutional theory is based on the premise that firms become more similar in behaviour overtime and implement legitimised ways of doing business; this enables the firm to adopt and accommodate environmental changes which is essential in enabling the firm to achieve profitability which is the overall corporate goal (Meyer & Rowan 1977).The environment in which banks operate is competitive; banks compete for customers' numbers, market share and profitability.

Banks are pressurised to conform to regulations to participate in fair competition and to conduct business in a legitimate manner. This may save the bank huge costs that might arise from penalties and fines because of engaging in malpractices such as unfair competition. This might expose the bank to huge costs and impact negatively on its profitability. Firms gain legitimacy through abiding by the norms and behaviours that regulate the way it conducts business in a given industry. In so doing,

banks can conduct their businesses with minimal disruptions that emanate from violating the norms. Mezias (1990) observes that profitable firms abide by the set rules and regulations hence create an enabling environment for the firm to grow and expand its business. For firms to conduct their business well they must conform to the regulatory requirements to accommodate environmental challenges such as competition and technological changes (DiMaggio& Powell, 1991).

Haveman (1999) notes large firms are seen as profitable if they can accommodate environmental changes and compete favourably in the market. Coercive pressures exerted to firms are formal or informal forces imposed by other organisations which are dependent on them (DiMaggio & Powell 1991). In a competitive environment, banks compete for resources, competent staff, adoption of information technology to innovate and develop products and services that are unique to the customers. This enables the bank to offer value adding services compared to its competitors. This institutional approach has influenced firms to reconsider their strategic approaches and actions towards achieving profitability (Burns & Wholey, 1999).

In line with the study, institutional theory holds that firm size influences profitability of the firm, the theory has used factors such as anti-trust regulation, legal systems, market size, patent protection and the development of financial markets. It has been argued that large and stable firms easily conform to institutional pressures and regulatory requirements because they have a good corporate reputation with their stakeholders such as suppliers and have a better understanding of the market structure and a stronger patent protection. This makes the firm to easily comply with the regulations and to focus on its business with minimal disruptions (Kumar, Rajan & Zingales, 2001).

2.2.3 Transactional Cost Theory

Transaction Cost Theory posits that banks seek to expand and grow in the external environment. The banks depend on the environment for resources in order to grow. This theory explains that banks try to minimise bureaucratic costs. Banks are considering the cost of external transactions against the bureaucratic costs of executing their operation (Boerner & Macher, 2002). Brouthers and Brouthers (2004) argue that firms and the market structure are dissimilar in terms of their role in organising and coordinating business transactions. When costs of external transactions exceed the bank's bureaucratic costs then the bank can grow since it can easily be able to operate at minimal costs. On the other hand, if the bureaucratic costs of coordinating bank operations are more than external transaction costs, the bank might consider downsizing.

When banks conduct their activities cheaply, they may save, one of the ways that the banks can achieve this is through outsourcing of none core business activities from service providers. Dutta and John (1995) holds that transactional costs are incurred when a product or a service is transferred to a new set of technology in order to make the product or service better. Dyer and Chu (2003) posit that transaction costs arise from exchange resources in the environment; this might be affected by a number of factors. These factors might increase external transactional costs where it might be expensive for the bank to control some of these factors. This might be economical to maintain such kind of an activity in the bank so that it does not use excessive resources such as contracts with suppliers, meetings and supervision among others. If banks suspect environmental uncertainty in the environment it might opt not to outsource its non-core activities. Managers must evaluate their internal transaction costs against their environmental costs before a decision is made on whether to

maintain some activities within the bank such as outsourcing to save costs (Dutta & John, 2005).

The relevance of this theory is that the firm should ensure that there is a proper balance between the costs and the benefits that accrue when the firm is doing business. Larger firms allocate more agency costs, span of control costs and other organisational costs. This is intended to improve the quality of supervision and to protect the stakeholders. This should not be done at the expense that the firm accrues from doing business. Therefore, bank costs will outrun the benefits of economies of scale and the firm's profitability will begin to decline. When the bank ceases to enjoy economies of scale, it might face high unit costs of operation which might impact negatively on profitability. It is worth noting that organisational costs place limits on the extent to which a firm can grow in a competitive market where the firm is seeking to maximise its shareholder's investment (Poppo & Zenger, 1998).

2.2.4 Agency Theory

The agency was first discussed in the work of Jensen and Meckling (1976). Agency theory is a management theory where one person, the agent acts on behalf of another person, referred to as the principal. The agent is charged with the responsibility of ensuring that the Principal's goals are achieved (Duckworth & Moore, 2010). Therefore, the agent has to balance between his interest and those of the principal. The agent who in this case is the bank management executive is in charge of the firm's resources and should maximise use of available resources to ensure that the firm is profitable. Laffort and Martimost (2008) contend that agency theory is essential since the action taken by the management affects the firm's profitability including all its stakeholders. It is the duty of the firm to make the right investment

decisions that can earn the firm better returns and increased profitability. The management executive of a bank should act in the best interests of its stakeholders by investing in ventures that can promise a higher return on investment. This allows the firm to grow and expand, thus ensuring that the overall aim of the firm is achieved and the interests of the stakeholders are represented.

Alchian and Harold (2011) contend that synergy between the top management executives and the shareholders are enhanced by profitability. The agency theory has been described as the central approach to managerial behaviour. Top management is entrusted with the resources and power by the shareholders, and should always prioritise the interest of all the shareholders when transacting any business. The top management should aim at ensuring that the interests of stakeholders are protected to make sure that their aspirations and goals are adequately represented by effectively utilising the size of the firm to contribute to the profitability of the firm (Shankmann, 2009).

The relevance of this study is to ensure that the top management exploits the firm's resources and capabilities to achieve profitability and growth. A financial stable firm can easily diversify its investment segments to mitigate risks and make huge investments that can promise higher returns. Stable banks invest in modern technology and innovation to enhance the efficiency of their operations, minimise costs and increase profitability.

The management of most firms is separated from ownership and thus managers are responsible for effectively managing the firm on behalf of the owners and shareholders to achieve profitability. Managers must have self-control in making the

right investment decisions and enhancing efficiency to contribute positively towards profitability; this will create room for growth and expansion.

2.3 Determinants of Bank Profitability

A discussion on the determinants of a financial institution's profitability is provided in this section which was discussed in conformity to the study objective which sought to bring out an understanding of how these determinants affected profitability of banks.

2.3.1 Total Assets

The total assets of the bank affect its profitability. Larger financial institutions are better positioned than smaller banks since they enjoy economies of scale. The financial institution's assets are used as a proxy for the size of the bank. The empirical results show that there is a positive and significant relationship between a bank's size and its profitability. Levine and Robert (2011) argue that there is a positive relationship between size and profitability of banks. However, a study by Kouser and Hassan (2014) found that there is a negative correlation between a bank's size and its profitability.

Keister (2001) posits that profitability interacts with size; large companies are less exposed to bankruptcy since they can easily diversify their lines of business, unlike smaller firms. A lower level of bankruptcy enables large firms to access more debt. In small firms, managers aspire to remain in control of their firms since they can easily benefit from financial returns on investments. They should sacrifice growth opportunities that are too expensive to realise and use more debt. The growth of small firms is determined by its internal finance. Smaller firms face financial difficulties that prevent them from gaining access to sources of finance from banks. These kinds of firms pay higher rates of interests for the additional loans and thus do not consider issuance of external equity to stay in control.

2.3.2 Customer Deposits

Customer deposit affect a bank's profitability, the deposit structure of the bank determines whether the bank is committed to short-term and long-term deposits. Short-term deposits are less expensive source of financing which impacts negatively on bank's profitability. Banks that possess higher deposits as compared to their assets use those deposits to strengthen their equity and boost their profitability.

Guru and Staunton (2002) argue that the factors that contributed to the profitability of Malaysian banks included branch network, the age of the bank and the number of employees. It was revealed that many branches were more expensive to maintain as a result of operational costs. Chirwa (2003) investigated the link between bank deposits and profitability; the study was carried based on time series data from 1970-to-1994 in Malawi. The deposits were first converted into credit. High profit and growth projections were anticipated since deposits were the basic source of financing. The results showed that there exists a positive link between customer deposits and bank

profitability. On the other hand, banks that rely on high deposits are less profitable. This is because they need to have a large number of branches that are very expensive to maintain, this impacts negatively on profitability and growth of the bank.

2.3.3 Loan Quality

Loan quality is a key determinant of bank profitability. This variable is computed by dividing the total number of non-performing bank loans and total gross loans and advances. The role of a bank is to provide loans to borrowers. Loan is a major source of earnings to banks; banks provide loans to generate revenues and to contribute to profitability. Angbazo (2012) emphasises that banks should be careful when offering loans to the borrowers since they might expose themselves to financial losses. An example is the latest financial crisis that occurred between 2007 and 2008 in the United States of America. Most banks that offered more loans including non-prime loans in this period suffered financial losses as a result of high default rates on non-prime loans which were as a result of decline in house prices. This led to the collapse of some banks (Willison, Dimitris & Hong, 2013).

2.3.4 Operating Efficiency

Emery (1991) posits that a firm is able to achieve operating efficiency if it can generate income from its operations at lower cost. By having competent employees who are efficient in their work, banks can maximise on their input and this saves huge costs from inefficiencies and delays that impact negatively on the profitability of banks. Emery (1991) argues that banks that were efficient have a team of competent staff who performed their roles efficiently saving the bank costs from penalties.

Technology plays an essential component in enhancing the firms' efficiency in their operation and coordination of activities. It improves information sharing leading to a

reduction of communication and supervision costs. Time is also a critical factor to consider because more firms that have perfected their marketing and distribution costs are well established and experienced in the market. This is also supported by Scholterns (2013) who argued that time was a fundamental element to consider for banks that were efficient. Further, he indicated that most banks that were efficient had served for long durations having attained relevant market experience and integrated marketing and distributions systems. Operating efficiency is determined by obtaining the ratio of total operating expenses and total income.

2.3.5 Liquidity

Liquidity is a determinant of bank's profitability. Liquidity can be looked at from two different ways. Christopher (2006) observes that liquidity is capacity of the bank to fulfil its financial obligations as and when they fall due without losses. A profitable bank can easily be able to meet its financial obligations without suffering from losses. The management of the firm tries to maintain proper levels of liquidity to minimise exposure to liquidity risk. It refers to the process of converting assets into cash in the course of the business to ensure a regular and continuous flow of cash.

Liquidity is measured using financial ratios known as liquidity ratios. These set of ratios determine the capability of the firm to fulfil its financial compulsions. The ratios commonly used for measuring liquidity include current ratios and quick ratios. Current ratio is computed by dividing the current assets with current liabilities. Quick ratio is computed by computing current assets- Inventory-prepayments divided by current liabilities. These ratios measure the ability of banks to meet their financial obligations as and when they fall due. Claeys and Vennet (2008) note that profitable

firms have well-established relationships with their stakeholders because they meet the main objective of the firm which is profit realisation.

2.4 Empirical Studies

This section covers global and local studies that have been done in relation to bank size and profitability. The empirical studies consist of divergent and convergent views that support the link between bank size and profitability. These empirical studies are also in line with the arguments of the theories that support this study.

2.4.1 Global Evidence

Symeou (2013) studied the link between a firm's size and profitability of German service firms. The study adopted an exploratory approach to determine the relationship between firm size and profitability. The study used panel for a period of fifteen years. Data was analysed using ordinary least square and the results established a statistically significant correlation between firm size and profitability.

Shehzad, De Haan and Scholtens (2013) assessed the link between size and profitability of the bank. The study adopted a longitudinal research design to establish relationships between size and profitability. The study used panel data for a period of fifteen years. The findings revealed that changes in profitability are subjected to the increase in the size of the firm. Consequently, the volatility of banks' profit depends on its size and profitability.

Bronwyn (2013) examined the factors affecting growth for firms in the U.S. manufacturing sector. The study used secondary data from publicly traded firms. A sample was selected from a population of approximately 1800 firms in 2012. The study covered a period of seventeen years (1995-2012). Time series method was used to analyse the panel data and the results found that firm size and profitability were largely uncorrelated.

Delmar and McKelvie (2013) studied the determinants of the bank's profitability in Spain; the findings showed that a higher growth in profits of banks had a higher proportion of total assets ,loans, customer deposits, efficiency and lower credit risks. It was established that higher profitability is associated with a financial institution that has the capability of holding higher assets against loans. Even though there is an additional cost of holding a higher loan, the banks need to balance between the two.

Pagano (2014) assessed the link between firm size distribution and profitability in European Countries. The study examined the industry level and size structure. Panel data was used for fifteen years. An exploratory research design was used, and a positive and robust relationship was established between the average size of a firm and its profitability. The results indicate that larger size fosters productivity and firm profitability.

2.4.2 Local Studies

Salim (2014) assessed the link between size and financial performance of commercial banks in Kenya. The researcher used a descriptive research design to establish the correlation between the variables. Secondary data was utilised for a period of five years; this data was obtained from financial statements and records. The findings revealed that size had a positive correlation with financial performance. More so, total

deposits were found to have a positive effect on financial performance. On the contrary, there was no link between bank branches and financial performance.

Mehrjardi (2014) studied the relationship between a firm's size and profitability of banks in Kenya. The researcher employed a descriptive research design to determine the link between size and profitability of banks. The study covered a period of five years and secondary sources of data were obtained from reports at Central bank. Descriptive statistics and a multiple linear regression models were used for analysis. The findings observed that there was a positive correlation between the profitability of banks with a number of branches, deposit liabilities, customer base, and market share.

Ngunjiri (2014) evaluated the effect of agency banking on growth of commercial banks. The study adopted exploratory research designs to determine the effect of agency banking on growth, secondary sources of data were utilised covering a period of 4 years between 2010 to 2013. The study targeted 13 commercial banks that utilised agency banking to roll out customers' financial services. The findings showed that agency banking had a statistically significant effect on profitability of commercial banks in Kenya.

Litunya (2014) examined the effect of internal variables on the profitability of commercial banks. The researcher employed a descriptive research design to determine the effect of internal variables on the profitability. The study covered a period of 10 years and secondary data was obtained from annual Kenya National Bureau of Statistics (KNBS) in the period (2009 to 2013). The researcher employed a multiple linear regression model to find out the link between variables. The results showed that Loan portfolio quality, liquidity, asset value and administrative costs were statistically significant to profitability.

Kinuthia (2015) tested the link between size and financial performance of commercial banks in Kenya. The researcher adopted a descriptive research design to determine the link between size and financial performance of banks. The study population involved a sample of 35 commercial banks in Kenya. The findings revealed a positive correlation between profitability of banks with the customer base, deposits, liabilities, number of branches, and market share.

2.5 Conceptual Framework

The study expects a positive correlation between bank size and profitability of Microfinance banks in Kenya. It is also expected that customer deposits, loan quality and branch growth will impact positively on the profitability of Microfinance banks. Increase in customer deposits impact positively on bank profitability, customer deposits are used as sources of income by commercial banks through loans. A bank that has a high amount of non-performing loans might impact negatively on the performance of the banks and hinder bank profitability. Branch network enhances access to banking services which might result into sales profitability; this might impact positively on bank profitability. An older firm has more established networks and stable as compared to a new firm. However, new firms exhibit a higher rate of growth as compared to older firms.

Figure 2.1 Conceptual Model

Source; Researcher

2.6 Summary of the Literature Review

Studies have shown a mixed reaction on the link between bank size and profitability. Few studies have shown that there is not statistically significant correlation between

the variables. In the reviewed literature, large firms are expected to be more profitable, however; the literature shows that small firms tend to grow much faster as compared to larger firms. Scholars have argued that smaller firms avoid investments that require huge financial resources, unlike larger firms that engage in risky investments that are long-term in nature. Smaller firms have a stable liquidity position and can easily grasp opportunities that might accelerate their profitability in the short-run. It was also observed that the theories that guide this study showed a mixed reaction on the link between firm size and profitability of banks, the proponents and the critics of these theories show divergent and convergent views. They do not agree on the relationship between firm size and profitability but, the study hypothesis expects a positive link between firm size and profitability of Microfinance banks in Kenya.

Research works have been done in relation to firm size and profitability in the global setting. In Africa, especially in the local context more concentration has been laid on bank size and financial performance of commercial banks and the determinants of a bank's profitability. Limited concentration has been given on the link between bank size and profitability in particular Microfinance banks in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section of the study covers the research methodology that was utilised in the study to find out the relationship between bank size and profitability.

3.2 Research Design

A research design is a detailed outline or plan of how a study will be conducted. It enables the researcher to evaluate the relationship between variables without interfering with them (Kothari, 2006). The study utilised a descriptive research design to find out the nature of the link between bank size and profitability and hypothesis testing. Mwangi (2014) applied a descriptive research design to establish the relationship between bank size and financial performance of commercial banks in Kenya. The study used a descriptive research design because it established a hypothetical relationship between the variables (Bank size and profitability).

3.3 Study Population

Kothari (2006) defines a population as a sum total of all objects found in a given population having the same traits. Study population included the Microfinance banks that operated within the study period (as represented in Appendix II).

3.4 Data Collection

It is the process of collecting and measuring data on targeted variables in a systematic manner that enabled the researcher to answer research questions and assess outcomes. Secondary sources of data were utilised because the study is quantitative in nature. The study took a period of five years (2011-2015) and the data was obtained from annual reports of Central Bank of Kenya website.

3.5 Data Analysis

It is the process of evaluating data with the help of analytical and logical reasoning to examine each component of the data given (Frankfort-Nachmias et al, 2008). Data collated was cleaned, sorted and coded using Statistical Package for Social Sciences (SPSS). Inferential statistics was used for data analysis. Cooper et al. (2007) indicate that inferential statistics is a form of statistics that allows the researcher to test for reliability of findings. Percentages mean and standard deviation were used to analyse the trend of the variables. A multiple linear regression model was used to find out the association between bank size and profitability of Microfinance banks in Kenya.

3.5.1 Analytical Model

A linear multiple regression models that was adopted comprised of six variables, five independent variables which included bank size, customer deposits, loan quality, operating efficiency and liquidity. The dependent variable was bank profitability which was measured using ROA. The regression model was as follows:

$$Y=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+\varepsilon$$

Where:

Y= Profitability which was measured using Return on Assets (ROA)

X_1= Bank size which was measured using log of total assets

Control Variables

X_2= Customer deposits which was measured by calculating the percentage increase in customer deposits annually.

X_3= Loan quality which was measured by obtaining the ratio between the total number of non-performing loans by total gross loans and advances.

X_4 = Operating efficiency was measured using total operating expenses divided by total income

X_5 = Liquidity was measured using a current ratio which was computed using current assets divided by current liabilities

α = Regression constant

ε = Error term normally distributed about the mean of zero.

$\beta_1\beta_{2...}$ β_n = the coefficients of variation determined the volatility of each variable to profitability the in regression model.

3.5.2 Tests of Significance

The study will test the level of statistical significance of the results at 95 percent to determine whether the model was an effective predictor using Analysis of Variance (ANOVA) approach. The null hypothesis H_0 assumed there was no link between bank size and profitability of Microfinance banks in Kenya. The alternative hypothesis H1: assumed that there was a statistically significant relationship between bank size and profitability of Microfinance banks in Kenya. In a one-tail test, the level of significance was expressed using the tests of coefficients. If the p-value(s) were more than 5%, then the null hypothesis was true because this implied lack of a significant relationship between bank size and profitability. When p-value was less than 5%, the alternative hypothesis was true. This meant that there was a statistically significant link between the size of the bank and its profitability.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

This section of the study provides analysed data and interpretation which includes descriptive statistics and inferential statistics. Analysis has been done in accordance with the objective which was to determine the effect of firm size on the profitability of Microfinance banks.

4.2 Return Rate

The study intended to collect data from 9 MFBs for 5 years comprising of 6 variables to constitute to 270 data points. However, the researcher managed to collect 240 data points since a few of the secondary sources of data from Microfinance banks were unavailable. This gave a return rate of 89% that was considered reliable for making a generalization.

4.3 Descriptive Statistics

Descriptive statistics was used to depict the tendencies of the variables (ROA, bank size, asset quality, customer deposits, operating efficiency and liquidity) in the study period. Depicted below are the results in Table 4.1.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	40	-.27	.04	-.0201	.06146
Logarithm of Assets	40	.00	4.50	2.9891	.98994
Asset quality	40	-.11	7.86	.7083	1.19086
Customer deposits	40	-.88	6.61	.7896	1.47978
Operating Efficiency	40	.00	3.71	1.1159	.62926
Liquidity	40	.00	2.98	.5156	.56505

Source: Findings

The outcome in Table 4.1 showed that profitability rose to .04 from -.27 with an average of -.201. Banks size rose to 4.5 from .00, with a mean of 2.99 which meant that Microfinance bank assets grew in the study period. Asset quality grew rapidly to 7.86 from -.11, its mean was .708. This was a sign of increased non-performing loans. Deposits by customers increased swiftly to 6.61 from -.88 which meant that new customers and an increase in accounts opened. Operating efficiency increased vastly to 3.71 from .00, which meant that MFBs got more income as compared to the expenses that they incurred in their operations. Liquidity increased progressively in the period to 2.98 from .00 which implied the MFBs met their short-term financial needs.

4.4 Inferential Statistics

The study utilised inferential statistics to assess the reliability of the results, these included Pearson correlation and regression analysis.

4.4.1 Pearson Correlation Coefficient

To establish the nexus between bank size and profitability of Microfinance banks; Pearson correlation coefficient was used. The outcome is depicted in Table 4.2.

Table 4.2 Pearson Correlation Coefficient

	ROA	Bank Size	Asset Quality	Customer Deposits	Operating Efficiency	Liquidity
ROA	**1**					
Bank Size	.371*	1				
Asset Quality	.123	.132	1			
Customer Deposits	.054	.111	.089	1		
Operating Efficiency	-.843**	-.252	-.141	-.054	1	
Liquidity	-.139	-.202	-.011	-.067	.240	1

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Source: Study Findings

The outcome in Table 4.2 found that bank size was weakly correlated to profitability (.371) while operating efficiency was strongly correlated to profitability (.843). On the other hand, there lacked existence of a correlation between asset quality, customer deposits and liquidity with the profitability of MFBs (.123, .054 and -.139, respectively).

4.4.2 Regression Analysis

Regression analysis tested the hypothesis on the link between bank size and profitability of MFBs. The outcome is depicted below.

Table 4.3 Summary of the Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.864[a]	.746	.709	.03318

a. Predictors: (Constant), Liquidity, Asset quality, Customer deposits , Logarithm of Assets , Operating Efficiency

Source: Research Findings

The output depicted in Table 4.3 found that coefficient of determination attained a value of .746 meaning that bank size explained 74.6% variance in profitability.

Table 4.4 Analysis of Variance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.110	5	.022	19.961	.000[b]
	Residual	.037	34	.001		
	Total	.147	39			

a. Dependent Variable: ROA

b. Predictors: (Constant), Liquidity, Asset quality, Customer deposits , Logarithm of Assets , Operating Efficiency

Source: Research Findings

The output in Table 4.4 found that the regression equation used in the study was significant and thus consisted of predictive value. Probability value was less than 5 percent, .000.

Table 4.5 Coefficients of the Model

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.030	.023		1.338	.190
	Logarithm of Assets	.011	.006	.185	2.031	.050
	Asset quality	-.001	.005	-.016	-.182	.857
	Customer deposits	.000	.004	-.003	-.033	.974
	Operating Efficiency	-.080	.009	-.822	-8.949	.000
	Liquidity	.010	.010	.095	1.055	.299

a. Dependent Variable: ROA

Source: Research Findings

Regression model obtained is depicted below:

$ROA=.030+.011X_1-.001X_2+.000X_3-.080X_4+.010X_5+\varepsilon$

Bank size, customer deposits and liquidity were positively related to the profitability of MFBs (.011, .000 and .010 respectively).This meant that an increase in a unit of the variables led to a corresponding increase in profitability. Asset quality and operating efficiency were inversely related to profitability, meaning that a unit decline in these variables led to a decline in profitability (-.001 and -.080, respectively).

Bank size and operating efficiency were significant for the reason that their p-values were less than five percent (.050 and .000 respectively). Asset quality, customer deposits and liquidity were insignificant because their probability values were more than five percent (.857, .974 and .299 respectively).

4.5 Interpretation of the Findings

Descriptive findings showed that bank size grew rapidly in the study period (.00 to 4.5), asset quality grew from (-.11 to 7.86). Deposits increased from.-.88 to 6.61; this was attributed to an increase in new accounts. Operating efficiency grew from .00 to 3.71 which was an indication that MFBs earn more income from expenses. Liquidity increased from 0.00 to 2.98 which was a sign that MFBs achieved their short-term financial roles. The trend as depicted by the variables (bank size, asset quality, deposits, operating efficient and liquidity) explained how MFBs performed during the study period. In line with Kinuthia (2015), descriptive findings concluded that commercial banks performed during the study period.

Correlation results found a weak correlation between bank size and profitability. The correlation score attained was .371. These results are in harmony with Kinuthia (2015) who found that bank size and financial performance were weakly correlated. A strong correlation was found to exist between operating efficiency and profitability. The correlation score was .843. These results conform to Ngunjiri (2014) who found that profitability was strongly correlated to operating efficiency.

No correlation existed between asset quality, customer deposits and liquidity with the profitability of MFBs. The correlation scores were as follows: .123, .054 and -.139, respectively. These results are in harmony with Mehrjardi (2014) who found lack of correlation between customer deposits and liquidity with financial performance.

Bank size and operating efficiency were significant because their probability values were less than five percent as follows: 050 and .000. The findings are supported by Salim (2014) who found that bank size and operating efficiency were significant. Further, customer deposits and liquidity were found to be insignificant as follows: .

974 and .299, respectively. The findings are supported by Ngunjiri (2014) who conclude that customer deposits and liquidity were insignificant.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section of the study presents a summary of the main results, a conclusion, recommendations put forward, study limitations and areas of interest by future researchers. This was led by the main aim of this study which was the effect of bank size on the profitability of MFBs.

5.2 Summary

MFBs were found to be profitable in the study period from -.27 to .04, this impacted positive to asset growth from .00 to 4.5. MFB's operating efficiency increased from . 00 to 3.71 meaning that they got more income from incurred expenses. Liquidity increased from .00 to 2.98 which was an indication that MFBs were able to realise their financial compulsions.

Bank size was found to be weakly correlated to profitability (.371) which was consistent to Kinuthia (2015) who concluded that bank size had a weak correlation to performance. Further, it was found that a strong correlation existed between operating efficiency and profitability.

The coefficient of determination concluded that bank size explained 74.6% change in profitability which implied that the model was reliable. This is supported by Kinuthia (2015) who also concluded that the regression model used was reliable. Further, it was found that the regression model was significant since the p-value was less than five percent. These coincided to Ngunjiri (2014) whose analysis of variance determined that the regression model was significant.

Liquidity and bank size were positively related towards profitability as follows: .010 and 011, respectively. The findings are consistent to Mehrjardi (2014) who found that banks size was positively related to profitability. Operating efficiency and bank size were significant because their probability values were less than five percent (.000 and .050 respectively). The findings are in agreement with Salim (2014) who pointed out that operating efficiency and bank size were significant. Customer deposits and liquidity were insignificant since their probability ratios were more than five percent (.974 and .299, respectively)

5.3 Conclusions

The study concluded that bank size, customer deposits and operating efficiency increased with the study period. This was attributed to the growth of customer portfolios and use of information communication technologies in the execution of their operations. Non-performing loans were found to increase posing credit risks to MFBs.

A strong positive correlation was found to exist between operating efficiency and profitability. In addition, a weak correlation between bank size and profitability was found to exist. On the other hand, there lacked correlation between liquidity, asset quality and customers' deposits with the profitability of MFBs.

A positive relationship existed between customer deposits, bank size and liquidity with the profitability of MFBs while operating efficiency and asset quality were negatively related to profitability. Operating efficiency and bank size were found to be significant as their probability ratios were lower than five percent. Customer deposits, asset quality and liquidity were insignificant as their probability ratios were higher than five percent.

5.4 Recommendations for Policy and Practice

Microfinance banks ought to increase their network of branches countrywide to attract new customers to open new accounts and in so doing increase their deposits. This will increase the pool of funds for investment and impact positively on their profitability.

The top management team should invest more in modern technologies and financial innovation to bolster efficiency and minimise operational costs. As a result of financial innovations, customers will have a wide scope of banking products to choose from leading to customer satisfaction and improved value addition.

MFBs should recruit and hire talented employees who are passionate and focused on working in a banking environment. This will improve professionalism and the quality of services offered by MFBs, it will also lead towards the realization of set goals and targets.

MFBs should ensure proper implementation of credit policies and standards to ensure that all borrowers seeking for credit facilities qualify for loans. This will minimise the rate of default that arises from giving loans to non-credit worthy customers, and significantly reduce non-performing loans.

Central Bank of Kenya might consider formulating policies that can guarantee a level playing field for MFBs to participate in fair and honest business practices that contribute more value to products and services offered to the customers. This will encourage MFBs to engage in healthy competition that is profitable.

5.5 Limitations of the Study

Constraints of cost and time limited the scope of this study only allowing the researcher to study Microfinance banks in Kenya only. Therefore the results got in

this research are limited to MFBs and are not applicable to any other sector of the banking industry.

A period of five years is very short hence it limited the researcher from establishing the 'cause and effect' relationship between bank size and profitability. A causal-comparative or quasi-experimental research seeks to establish the causes and effects of relationships which is achieved in a long period of time, for example, 20 years.

The study was limited to secondary kind of data which is inappropriate and fails to reflect the actual study needs since the researcher lacks control over the data. In primary data, the researcher has control over the data collected hence more accurate and consistent data can be achieved using this approach.

Some data from specific variables such as growth in customer deposits were missing in the year 2010 of the annual statements. This affected the quality of the sources of data and adequacy to enable the researcher to establish accurate and more findings on the nexus between bank size and profitability of MFBs.

Four control variables as determinants of profitability; it is key to note that there are so many determinants that affect the profitability of MFBs such as physical investment, branch network and much more that can be considered to do a comparison with this study.

5.6 Suggestions for Future Research

A duplication of this research should be executed in a different industry other than the banking sector such as the manufacturing firms. This will give room for comparison that might lead future researchers to a more plausible conclusion so that the relevant recommendations can be reached.

Future researchers might be interested in establishing sustainability on the link between bank size and profitability in the long-term. More insights can be drawn and increased understanding on the effect of bank size on profitability.

Business environment keeps on evolving as a result of technological changes, legal framework and regulations. Future researchers must conduct a similar study after a period of ten years to find out if this relationship will hold so that more conclusive results can be drawn.

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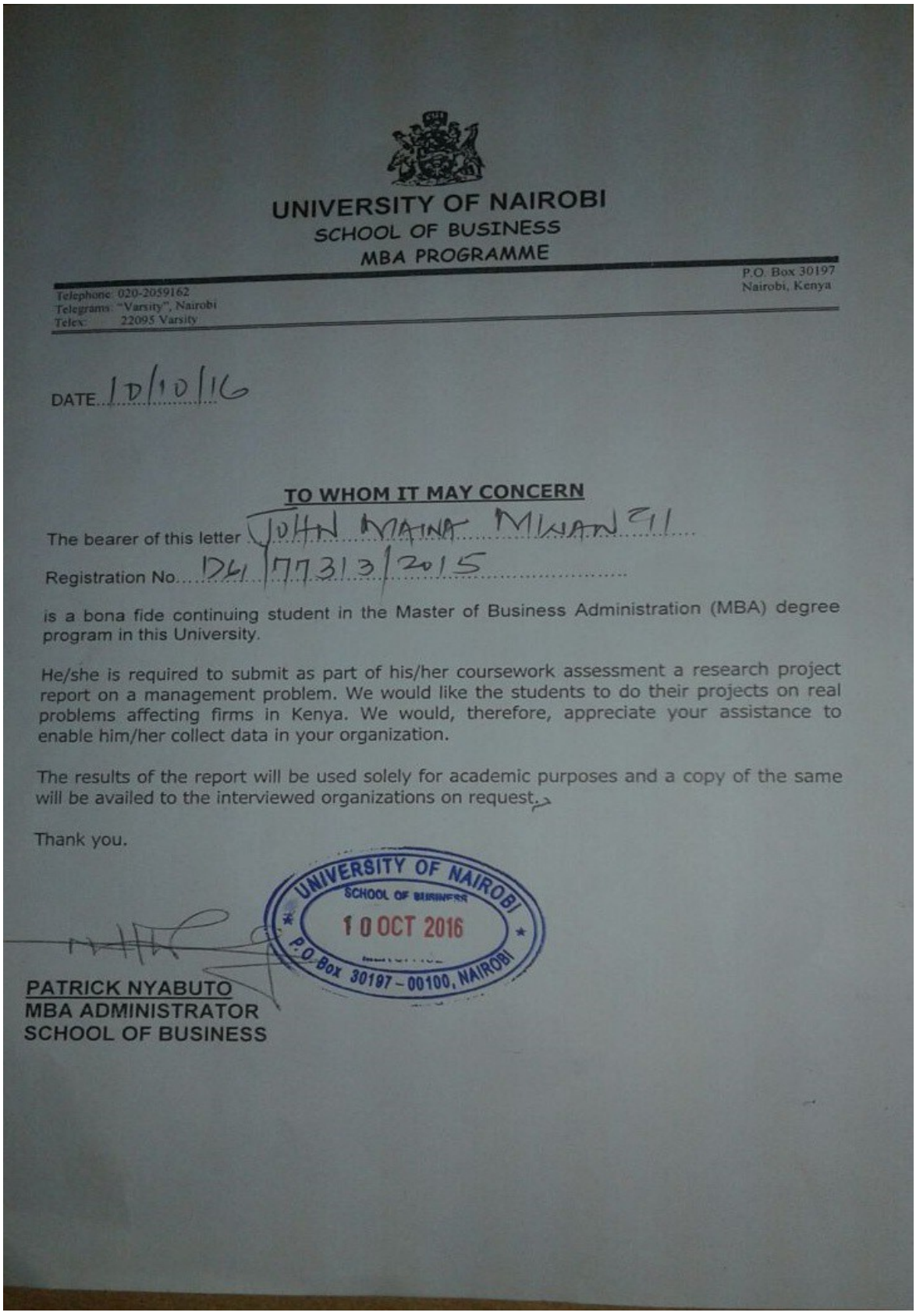
APPENDICES

APPENDIX I: INTRODUCTION LETTER



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Nairobi, Kenya

DATE 10/10/16

TO WHOM IT MAY CONCERN

The bearer of this letter JOHN MAINA MWANGI

Registration No. D61/77313/2015

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
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APPENDIX II: MEASUREMENTS FOR THE STUDY VARIABLES

	Year	ROA	Liquidity	Asset Quality	Operating Efficiency	Ln of Assets	Customer Deposits
FAULU	**2015**	0.012398	0.28	0.926505	0.829282	4.503259	0.040130849
KWFT		0.004541	0.31	0.821895	0.897359	4.403532	0.319784912
SMEP		0.003752	0.53	0.978599	0.884173	3.888123	0.458753916
REMU		-0.00039	0.24	0.911042	0.94822	3.413635	-0.028679245
RAFIKI		-0.03778	0.4	0.8082191	1.276316	2.598791	-0.048192771
UWEZO		0.011513	0.4	0.7674419	0.748148	2.783904	0.0546875
CENTURY		-0.26904	0.334	0.7291667	2.348837	2.294466	-0.173228346
SUMAC		0.000885	2.17	1	0.96	2.354108	-0.34375
U&I		0.038043	0.28	0.8181818	0.714286	2.264818	0.638888889
FAULU	**2014**	0.0175653	0.24	0.63	0.823	4.431122	1.378299528
KWFT		0.0147145	0.24	0.567657	0.807	4.307924	1.317815249
SMEP		0.003514644	0.35	0.752443	0.885	3.776338	1.292897047
REMU		-0.04079058	0.29	-0.10757	1.1147	3.376212	6.614942529
RAFIKI		0.007594937	0.81	0.608696	0.942	2.596597	-0.882436261
UWEZO		0.01025641	0.27	0.630435	0.888	2.591065	4.333333333
CENTURY		-0.147186147	0.261	0.15	2.219	2.363612	1.309090909
SUMAC		0.00625	0.15	0.65625	0.9459	2.20412	-0.353535354
U&I		0.01459854	0.57	0.285714	0.852	2.136721	0.058823529
FAULU	**2013**	0.013270066	0.23	0.41	0.8074	4.094610863	1.440827399
KWFT		0.017975359	0.27	0.5427	0.774	4.337499195	1.188527878
SMEP		0.002409639	0.26	0.219178	0.851	3.396199347	0.235700197
REMU		-0.017804154	0.67	0.727273	1.174	2.527629901	1.852459016
RAFIKI		0.002446317	0.42	7.860963	0.8252	3.565729788	2.017094017

UWEZO		-0.018691589	0.25	0.636364	1.125	2.029383778	0.333333333
CENTURY		-0.164634146	0.244	0.1666667	3.714	2.214843848	0
SUMAC		-0.035830619	0.21	0.285714	1.0125	2.487138375	0
U&I		0.0125	0.634	0.333333	0.875	1.903089987	0
FAULU	**2012**	0.007593611	0.24	0.33	0.7855	3.88298	0.508439898
KWFT		0.008487049	0.40	0.33	0.747	4.309289	-0.644415918
SMEP		0.023580786	0.28	0.56	0.7195	3.359835	0.28030303
REMU		-0.038674033	0.80	0.53	1.4615	2.257679	3.357142857
RAFIKI		0.002720348	1.17	0.58	0.9646	3.264346	3.775510204
UWEZO		-0.025641026	0.52	0.71	1.08333	1.892095	1.25
CENTURY		N/A	N/A	0.13	N/A	N/A	N/A
SUMAC		N/A	N/A	N/A	N/A	N/A	N/A
U&I		N/A	N/A	N/A	N/A	N/A	N/A
FAULU	**2011**	0.000389029	0.21	0.46	0.8295	3.711048	N/A
KWFT		0.017727166	0.39	0.574194	0.9376	4.231368	N/A
SMEP		0.013013013	0.24	0.34507	0.7769	3.300595	N/A
REMU		-0.10483871	2.98	0.333333	1.9286	2.093422	N/A
RAFIKI		-0.034013605	1.60	0	2.05	2.644439	N/A
UWEZO		-0.13559322	0.48	0.333333	2.111	1.770852	N/A
CENTURY		N/A	N/A	N/A	N/A	N/A	N/A
SUMAC		N/A	N/A	N/A	N/A	N/A	N/A
U&I		N/A	N/A	N/A	N/A	N/A	N/A

Source: CBK, 2016

Appendix III: List of Microfinance Banks in Kenya as at 2015

i. Choice Microfinance Bank Limited

ii. Faulu Microfinance Bank Ltd

iii. Kenya Women Microfinance Bank Ltd

iv. SMEP Microfinance Bank Ltd

v. Remu Microfinance Bank Ltd

vi. Rafiki Microfinance Bank Ltd

vii. Uwezo Microfinance Bank Ltd

viii. Century Microfinance Bank Ltd

ix. Sumac Microfinance Bank Ltd

Source: CBK, 2015