EFFECT OF CENTRAL BANK REGULATORY REQUIREMENTS ON FINANCIAL PERFORMANCE OF MICROFINANCE INSTITUTIONS IN KENYA

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Abstract: This study was been motivated by some key facts, the first is that Kenya is in a new dispensation of government structures where there is a national and county governments. With progressive developments in devolved units, from the year 2013 there has been a vibrancy in rural economy, which in turn has led to most MFIs refocusing expansion to rural areas rather than concentrating their operations in urban localities. Secondly, there exists contradiction in past studies on significance of regulation requirements on financial performance MFIs. Thirdly there exist limited studies on comparative studies of regulated and self-regulated MfIs financial performance in developing countries. Finally the study endeavored to establish the compounded effect of regulatory requirement of corporate governance, credit risk management, liquidity management and capital requirement on financial performance of MFIs in Kenya. The main objective of the study was to assess the effects of central bank regulatory requirements on financial performance of microfinance institutions in Kenya. The specific objectives of the study was: To assess the effect of credit risk management on financial performance of Microfinance Institutions in Kenya, to establish the effect of Interest Capping on financial performance of Microfinance Institutions in Kenya, to ascertain the effect of liquidity management on financial performance of Microfinance Institutions in Kenya and finally to examine the effect of capital requirement on financial performance of Microfinance Institutions in Kenya. From the study, it can be concluded that credit risk regulation is positively correlated with financial performance of microfinance institutions in Kenya. The study further concluded that interest rate spread has a significant and a positive effect on the financial performance of the microfinance institutions in Kenya during the period before and after interest rate cap. The study also established that liquidity regulation positively affect the financial performance of the microfinance institutions in Kenya, thus the study concludes that liquidity positively affect the financial performance. The study finally concluded that capital requirement has a significant and a positive effect on the financial performance of the microfinance institutions in Kenya that higher capital adequacy ratios translated to higher financial performance. Since both effects were significant, it can be concluded that financial performance of the microfinance institutions in Kenya is influenced by capital requirement. The study recommends that big embarks on effective and regular monitoring of the credit from the time of disbursement till the final repayment as a means of minimizing on credit risk and its antecedent negative impact on financial performance. The study further recommends that a proper balance between capping on loans and deposits needs to be maintained so that microfinance institutions realize a good return on their assets. From the findings and conclusion, the study further recommends that there is need for microfinance institutions to increase their current assets so as to increase their liquidity as it was found that an increase in current ratio positively affect the financial performance.

Keywords: Credit Risk Regulation, Interest Rate Capping, Liquidity Regulation, Capital Requirement.

1. INTRODUCTION

1.1 Background of the Study

Microfinance institutions (MFIs) play a vital role in the economic development of many developing countries (Hartungi, 2007). However, MFIs face many challenges including the lack of proper regulatory environment in most of the countries. Despite the lack of proper regulatory environment for MFIs in many countries, the tremendous growth of the sector in the last decade has led to increased demand for regulation, which is critical for the enhancement of the financial performance of the institutions (Cull, Demirg-Kunt, & Morduch, 2011). Microfinance has emerged as a dedicated pro-poor financial institution to lend uncollateralized and tailored loan terms to the unbanked poor in low-income communities. Through institutional innovations and innovative loan terms, microfinance institutions become able to dispense with information and enforcement costs and generate high repayment rates (Morduch, 1999; Banerjee *et al.*,1994). Microfinance institutions demonstrate that the poor can borrow, pay substantial interest rates, and save continuously, which in turn results greater optimism for improving credit markets in developing economies

It is widely recognized that a well-developed financial system is vital to stimulate economic growth through facilitating allocation of resources to its most productive use. Availability of financial services like credit, saving, payment and insurance products trigger investments, spread risks and facilitate ease of exchanges. Broader and inclusive financial system that overcomes price and non-price barriers in particular benefits the poor segment of the population who are often systematically excluded from accessing financial services (Demirgyc-Kunt & Klapper, 2012)

Batinge (2014) note that, Microfinance refers to a variety of financial services that target low-income clients, particularly women. Since the clients of microfinance institutions (MFIs) have lower incomes and often have limited access to other financial services, microfinance products tend has smaller monetary values than what is normally provided by the commercial banks. These microfinance products include loans, savings, insurance, and remittances. In the past MFIs have offered their service the poor though they have broadened their scope to those excluded by commercial banks.

The importance of MFIs is growing and especially among donors, governments and commercial parties, requirement for financial sustainability as become greater, (Hardy, Holden & Prokopenko, 2003). The MFIs are posing as most preferred financial intermediary by the poor because of ability to provide short-term loans without collateral as well with low interest rate compared to other moneylenders such as shy lockers and pawnbroker

1.2 Statement of the Problem

AMFI-K & MicroFinanza (2013) reports found out that MFIs had a significant poor financial performance in year 2009 & 2010. The poor performance was attributed to costly lending methodology and high-risk exposure. They also noted that the sector experienced poor efficiency and poor profitability, which was attributed to funding and operational costs. In 2014 the reports noted that the microfinance sector experienced poor financial performance in year 2011-2013 as compared to the traditional banking sector. The reports concluded that even though the Microfinance banks are governed by prudential regulation, they relatively performed poor to credit only microfinance contrary to anticipated improvement due to adoption of the regulations.

Cull *et al* (2015) noted that prudential regulation regulatory costs exhibit economies of scale and thus smaller banks face higher average costs than larger banks complying with regulations. They also quipped that compliance cost and administrative cost was very high for MFIs thus affecting negatively on their profitability.

Christen *et al.* (2003) argue that prudential regulation aim to create financial soundness of licensed intermediaries business in order to prevent financial instability and losses to small, unsophisticated depositor. They also noted that the main motivation for regulatory change is to encourage formation of new MFIs and improve performance of the existing institutions. A survey conducted by Center of Study of Financial Innovation (2014), found that most prevailing risks facing microfinance sectors were indebtedness, credit risk, quality of management and corporate governance. Over indebtedness in the sector is largely attributable to surplus lending capacity and lack of professionalism within MFIs. The study also noted that quality of regulation in the sector remain a problem with the participants describing it variously as inadequate, overbearing or inappropriate and seldom as helpful.

The motivation of this study is the fact that, firstly Kenya is in a new dispensation of government structures where we have national and county governments. With progressive developments in devolved units, from year 2013 has led to

vibrancy in rural economy, which in turn has led to most MFIs refocusing expansion to rural areas rather than concentrating their operations in urban localities. Secondly, there exists contradiction in past studies on significance of regulation requirements on financial performance MFIs. Thirdly there exist limited studies on comparative studies of regulated and self-regulated MfIs financial performance in developing countries. Finally the study endeavors to establish the compounded effect of regulatory requirement of interest rate capping, credit risk management, liquidity management and capital requirement on financial performance of MFIs in Kenya.

1.3 Research objective

1.3.1 General Research Objective

The main objective of the study was to assess the effects of central bank regulatory requirements on financial performance of microfinance institutions in Kenya.

1.3.2 Specific Research Objective

1. To assess the effect of credit risk regulation on financial performance of Microfinance Institutions in Kenya

2. To establish the effect of Interest Rate Capping on financial performance of Microfinance Institutions in Kenya.

3. To assess the effect of liquidity regulation on financial performance of Microfinance Institutions in Kenya.

4. To examine the effect of capital requirement on financial performance of Microfinance Institutions in Kenya.

1.4 Research questions

1. What is the effect of credit risk regulation on financial performance of Microfinance Institutions in Kenya?

2. What is the effect of Interest Rate Capping on financial performance of Microfinance Institutions in Kenya?

3. What is the effect of liquidity regulation on financial performance of Microfinance Institutions in Kenya?

4. What is the effect of capital requirement on financial performance of Microfinance Institutions in Kenya?

2. LITERATURE REVIEW

2.1 Introduction

This section focuses on theoretical framework, conceptual framework, literature review, critiques of literature and research gap

2.2 Theoretical Framework

Cooper and Schindler (2008) view a theory as a set of systematic interrelated concepts, definitions, and propositions that are advanced to explain and predict phenomena (facts). In this section, four theories of central bank regulatory requirements had been discussed and how they interact with financial performance of microfinance institutions in Kenya.

2.2.1 Agency Theory

This theory describes the relationship between the principal or the owners of firms and the agents or the managers that should be well managed so that they may act in the best interest of the principal. According to Jensen & Meckling (1976) define the term 'agency relationship' as a contract under which one or more (principals) engage another person (the agent) to perform some service on their behalf. This relationship involves delegating some decision-making authority to the agent. It is hypothesized that the principal will assume that the agent (and all individuals) will be driven by self-interest as the wealth maximizer (Jensen and Meckling, 1976).

These problems cannot be eliminated but they can be controlled (Nordberg 2008) and minimized. When the agency cost is minimized, the firm's performance is improved (Fama 1980).Since one of the board's obligations is to ensure that management prioritizes the interests of shareholders, agency theory has suggested that a more diverse board monitors managers better because board diversity increases board independence (Carter et al. 2007). Board independence creates more incentives to monitor management and is positively related to firm performance. Therefore, gender diversity, as one type of board diversity, may enhance the board as a mechanism to control and monitor managers and may increase the independence of the board (Campbell & Vera 2008).

2.2.2 Loanable Funds Theory

This theory was first advanced by Swedish economist Wicksell (1851-1926). Other economists including Myrdal, Lindahl, Ohlin, Robertson & Vinerin 1930s added on theory. The theory states that the rate of interest rate is determined by the demand for and supply of loanable funds. There are three factors affecting demand for loanable funds; investment, hoarding and dissaving. On the other hand supply for loanable funds is determined by four factors namely savings, dishoarding, disinvestment, bank money. The prevailing interest rate according to the theory is the point of equilibrium between demand for and supply of money. At this point the demand and supply of loanable funds are equal.

The theory has however been criticized by some scholars like Keynes who questioned its assumption of full employment just like classical theory. The assumption that savings and income are independent is also deficient. It has also been criticized because of the assumption that investment is only related to interest rate while marginal efficiency of capital is also a factor. The theory also assumes that the level of national income remains unchanged which is not practical since change in investment affects the income. However, this theory is considered superior to classical theory because of the following three factors; the linking of liquidity preference, quantity of money, savings and investment, the inclusion of bank credit as source of loanable funds and considering hoarding as factor affecting interest rate.

2.2.3 Liquidity preference theory

This theory was developed by Keynes (1936) as a short-term theory of the rate of interest which was more relevant for policymakers and for explaining near-term changes in interest rates. The demand for liquidity; Keynes argued that the rate of interest is really a payment for the use of a scarce resource, money (cash balances). Business and individuals prefer to hold money for carrying out daily transactions and also as a precaution against future cash needs even though money's yield is usually low or even non-existent. Investors in fixed-income securities such as government bonds, desire to hold money against declining asset prices. Interest rate is the price that must be pai d to money holders to surrender a perfect liquid asset (McGraw, 1999). Keynesian literature took liquidity preference to mean demand for money and liquidity preference theory as a theory whereby the rate of interest is determined by demand and supply of money. Keynes argued that assets are characterized by four attributes: the generation of incomes to their possessor (profits, interest rates, dividends, rents, etc.), their carrying cost, their liquidity premia, and the appreciation or depreciation of their market values

2.2.3 Stakeholder theory

Stakeholder theory was embedded in the management discipline in 1970 and gradually developed by Freeman (1984) incorporating corporate accountability to a broad range of stakeholders. Wheeler et al,(2002) argued that stakeholder theory derived from a combination of the sociological and organizational disciplines. Indeed, stakeholder theory is less of a formal unified theory and more of a broad research tradition, incorporating philosophy, ethics, political theory, economics, law and organizational science. Stakeholder theory can be defined as "any group or individual who can affect or is affected by the achievement of the organization's objectives". Unlike agency theory in which the managers are working and serving for the stakeholders, stakeholder theorists suggest that managers in organizations have a network of relationships to serve – this include the suppliers, employees and business partners. And it was argued that this group of network is important other than owner-manager-employee relationship as in agency theory (Freeman, 1999). On the other end, Sundaram & Inkpen (2004) contend that stakeholder theory attempts to address the group of stakeholder deserving and requiring management's attention. Whilst, Donaldson & Preston (1995) claimed that all groups participate in a business to obtain benefits. Nevertheless, Clarkson (1995) suggested that the firm is a system, where there are stakeholders and the purpose of the organization is to create wealth for its stakeholders.

Stakeholder theory has grown in importance as the impact of business failures on society has become clear in recent years. As business utilizes groups from the society in which it functions, the needs of society begin to require a firm's consideration beyond merely the wealth of its shareholders. Interdependent relationships exist between the firm and other members of the society requiring a broader regard than internal reflection. Firm's that follow stakeholder theory, it is argued, will generate higher revenues because customers will be willing to pay more for services and products, lower costs because suppliers and employees will be either willing to accept lower fees or be more productive, and less regulatory oversight because the firm will be proactively working with government to address issues(Tse, 2011).

2.2.4 Pecking order theory

The pecking order theory was developed by Myers and Majluf (1984). According to their study, the debt financing level is driven by the desire of the corporation to finance new investments, first from retained earnings, then with low risk debt, and, finally, if all fails, with equity. The theory essentially states that the corporation will use debt financing, rather than issuing equity, when internal cash flow is not sufficient to finance investment expenditure (Myers 2001).

The theory does not have a well-defined optimal level of debt financing, because there are two kinds of equity, internal (retained earnings) and external, one at the top of the pecking order and one at the bottom (Myers 1984). Myers (1984) argued that the debt financing level of a corporation reflects its cumulative requirements for external finance. It is also not clear whether the firm will use all the available internal sources of finance first and at what point external equity is introduced. This is commonly referred to as information asymmetry problem.

The theory predicts that profitable firms that generate high cash flows are expected to use less debt capital than those who generate lower cash flows. The pecking order theory argues that businesses adhere to a hierarchy of financing sources and prefer internal financing when available. Myers (1984) argued that firms with comparatively low tangible assets relative to firm value are more likely to suffer from information asymmetries. Managers, however, in the context of pecking order, can minimize the effect of information asymmetry by respectively employing internal funds, debt and finally equity, in financing future growth. It must be noted here that, debt is preferred over equity not just for the benefit of the tax shield, but because there is inherently, less information asymmetry associated with debt relative to equity

2.3 Conceptual Framework
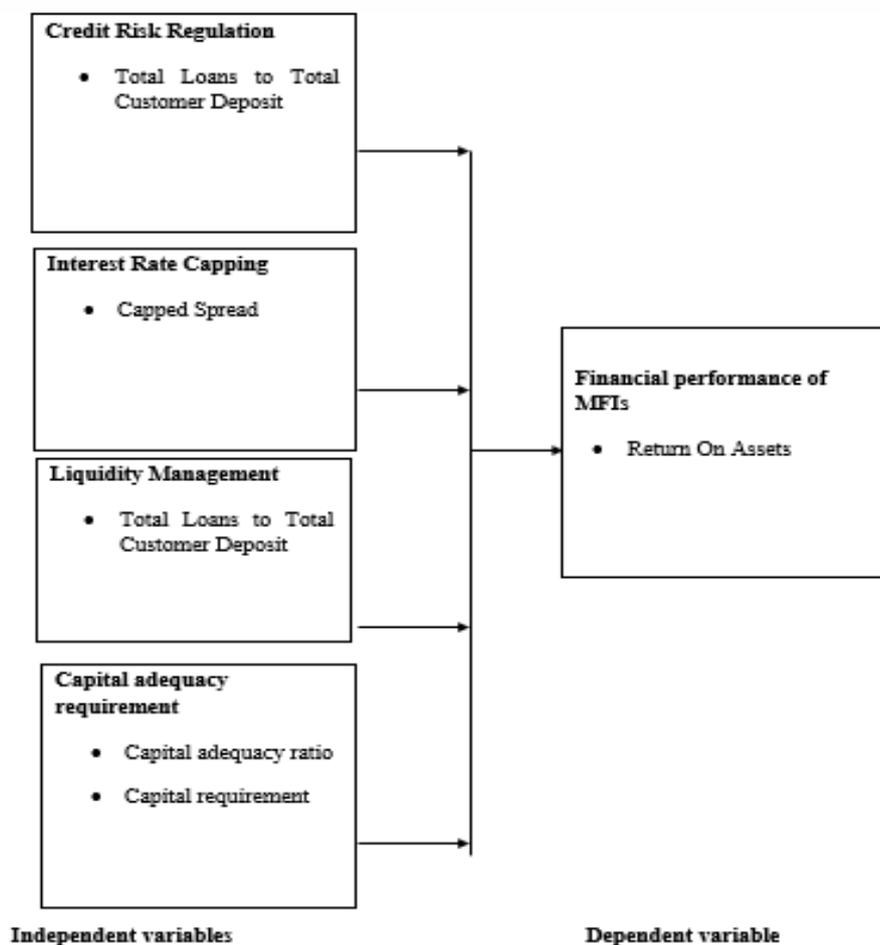
2.4. Empirical Review of Literature

Getahum, Anwen and Bari (2015) investigated the relationship between credit risk management and its impact on performance of commercial banks in Ethiopia for the period 2009 to 2014. They used panel data set from nine

commercial bank found out that there was a strong relationship between credit risk management and commercial performance in Ethiopia. Financial performance was measured with Return on Asset (ROA) and Return on Equity (ROE) while credit risk management with Capital Adequacy Ratio (CAR), Non-performing Loan To Total loans (NPLR), Loan Provision to Total Loan Ratio (LPTLR), Loan Provision to Non-performing Loan ratio (LPNPLR), Loan Provision to Total Assets ratio (LPRTAR) and Non-Performing Loans To Total Loans (NPLTLR).

Ahmed & Malik (2015) conducted a study on credit risk management and loan performance on microfinance banks in Pakistan The main purpose of the paper was evaluate the influence of credit risk management practices on loan performance (LP) while taking the credit terms and policy (CTP), client appraisal, collection policy (CP) and credit risk control (CRC) as the variables of the credit risk management practices. Cross sectional data was collected and multiple regression analysis used for establishing credit risk management practices on the performance of loan. They found that credit terms and client appraisal have positive and significant impact on the LP, while the CP and CRC have positive but insignificant impact on LP.

This study found that total debt and short term debt ratio impacts positively and significantly on ROE while negatively and significantly on ROA. Long term debt ratio had a positively and significantly impact ROE but not significantly impact on ROA of MFIs. This shows that if MFIs use long term debt to finance their operations, there may not be a pressure on management of MFI. This further suggests that profitable MFIs depend more on long term debt financing. The study uses a data set which consists of 290 MFIs from 61 countries. ROA and ROE is used as performance indicators, while debt to equity, long term debt to equity, short term debt to equity, debt to assets, long term debt to assets and short term debt to assets ratios are used as indicators of capital structure of MFIs.

Makau (2006) carried out a study on the effect of capital structure on firm value: evidence from Nairobi stock exchange. From the study, the researcher concluded that there existed a regression equation that was relating the firms leverage to its own growth, profitability, liquidity, size and non-debt ratio tax shields, the study also concludes that there was a general increase in leverages from year 2003 to years 2007, The researcher also concluded that in order for firm to increase its leverage it should increase it factors that leads to increase in its size and growth. The study further concludes that the firm own capital structure affects is value. The study further concludes that profitability of the company affects leverage of the company.

Kibet (2009) carried out a study to establish whether there was a relationship between capital structure and profitability of MFIs in Kenya. This study used descriptive statistics. Descriptive statistics are used to describe the main features of a collection of data in quantitative terms. One important use of descriptive statistics is to summarize a collection of data in a clear and understandable way. The study found that the capital structure decision is crucial for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has on an organization's ability to deal with its competitive environment. From the findings, the study found that that most of MFIs in Kenya were using equity and or donations as their main source finances in Kenya which accounted for by 72.42% and 27.58% in form of debt. The study further found that there exist a positive relationship between capital structure and profitability of MFIs in Kenya.

Odunga*et al.,(*2013) examined the effects of liquidity and capital adequacy on the operating efficiency of 40 commercial banks in Kenya for the period 2005-2011. They found that bank's performance is influenced by how a bank moves forward in an effort to streamline its operational strategies. They added that commercial banks with enough liquid assets tend to draw more confidence with customers because of the ability to address short-term financial obligations. It is therefore important for the central bank to ensure full compliance with the minimum liquidity requirement by commercial banks.

In their study of liquidity management and corporate profit, Owolabi and Obida (2012) found out managers can increase profit by putting in place good credit policy, short cash conversion cycle and effective cash flow management procedures. The study through the use of descriptive analysis where analyzed data from 12 selected manufacturing companies quoted on the floor of Nigeria stock exchange. The conclusion of the study was that effective cash optimization is critical to all organization profit maximization. Further some studies have shown that there exists relation between liquidity and financial performance of banks.

Ogbada and Osuji (2013) researched on the efficacy of liquidity management and banking performance in Nigeria. Survey design through structured questionnaires was used to collect data .The sample of the study was made up of twenty randomly selected banks in Nigeria where 300 bank employees derived by randomly distributed questionnaires to each. From their empirical analysis they found out that there is significant relationship between efficient liquidity management and banking performance. Majid (2003) also stressed prudence practice of liquidity management where in their research on risk management, regulation and supervision of Islamic banks in Jakarta-Indonesia .They alluded that failure to address liquidity management has led to banking collapse and to extension instability in financial systems. Contrary to the finding of positive relationship between liquidity and financial performance of financial institution, some researchers have found negative relationship between liquidity and 18 performance. In the research on liquidity –profitability trade off in emerging markets, Eljelly (2004) measured liquidity using current ratios and cash conversion cycle. By the use of correlation and regression analysis, the study found out that their exists negative relationship between the firms profit and its liquidity level as measured by current ratios and longer cash conversion cycle. The cash conversion cycle or the cash gap was found to be more important as a measure of liquidity in industry level than current ratio.

Mugambi et al. (2015) researched on effect of cash management on financial performance of deposit taking SACCOs in Mount Kenya region. The study used descriptive survey in soliciting the information. By use of data of 30 SACCOs through the use of correlation coefficient they concluded that cash management is critical as a liquidity management tool in deposit taking SACCO's. Hence cash management policy should be put in place to attain optimal financial performance of deposit taking SACCO.

2.5 Critique of Existing Literature

Gathuku (2010), carried a study on response of MFIs to regulation through Microfinance Act 2006. The study targeted 45 MFIs members of AMFI. Using cross sectional survey design found that the organization had adopted various strategies in response of regulation such as human resource, strategic partnership with telecommunication companies, introduction of new products and shifting from donor funds to debts. This study failed to establish effect of regulations to financial performance.

A study conducted by M'mukiri (2013) on the effects of government regulation on the financial sustainability of microfinance institutions in Kenya focused on three major variables capital adequacy requirements, liquidity requirements and loan provision. The researcher used multiple linear regressions to establish the impact of variables on financial sustainability measured by operational self-sufficiency. The study found that capital adequacy and liquidity requirement had positive significant impact on financial sustainability while loan provision had negative less significance. This study fail to establish the relationship between the variable and financial performance also the researcher erred to include credit only MFIs that don't prescribe to central bank regulation.

Ouko (2014), carried a study on regulation and supervision of microfinance institutions in development of financial inclusion in Kenya. The study established that high capital requirement for desposit taking microfinance lock out potential MFIs which can operate on small scale thus hampering financial inclusion. It also finds that regulatory system tends to diminish the charity aspect of MFIs. This study never considered the aspect of regulations such corporate governance, credit risk management, liquidity management, and financial leverage on the financial performance.

2.6 Research Gap

Withaka (2013), conducted a study on factors influencing the social performance of MFIs. The study focused on directors' characteristics, leadership characteristic, involvement of stakeholders, accountability practices, and moderating effect of size and age. This study excluded the effects independent variables on financial performance.

Muiruri (2015), did study on effects of central bank regulatory requirements on financial performance of commercial banks in Kenya. The study mainly focused on the following independent variable corporate governance, capital requirement, credit risk management, and liquidity management. This researcher recommended further research on other financial sector institutions such as SACCOs and MFIs. It's from this background that this study tries to fill the literature gap. No other study has been done to establish the financial performance on microfinance sector based on a combination of the variables considered in this study. It is in the face of such that this study aims at filling the gap by establishing the factors considered influence the financial performance microfinance in the banking sector. This study add value to existing literature.

3. RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes the research methodology which includes the research design, sampling frame, target population of study, sample size, sampling procedures, and the data collection and analysis procedures

3.2 Research Design

Descriptive research design was used since it provides insights into the research problem by describing the variables of interest. It was used for defining, estimating, predicting and examining associative relationships.

3.3 The Target Population

According to Turner (2003) population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated. The unit of analysis for study was the MFI organizations while the unit of inquiry was microfinance Board members, managers and credit officers of these MFIs. These categories of respondents was chosen because they are believed to have adequate knowledge about the subject investigated. The target population for this study was 48 MFIs which are the members of AMFI Kenya.

3.4 Sampling Framing

According to Mugambi (2015) Sampling frame is a (physical) representation of all the elements in the population from which the sample is drawn. Turner (2003) defines a sampling frame as the set of source materials from which the sample is selected. The sampling frame for this study was derived from the list of all members of AMFI Kenya as at 31st December 2016.

3.5 Sample and Sampling Techniques

Since the unit of analysis was MFIs, no sampling technique was necessary as the study collected data from all elements in the sampling frame, which is equivalent to the target population. This study did not use sampling since there are only 48 MFIs that are registered .This number was small enough to analyze.

3.6 Data Collection Techniques

This study used secondary data. Data was collected from the Central Bank of Kenya, the financial statements of the MFIs and from other sources where the MFIs' books of accounts have been recorded.

3.7 Data Analysis Techniques

CBK reviewed prudential guidelines for banks stipulated in the Banking Act of 2006. The new guidelines took effect on 1st of January 2013. The purpose of the guideline is to ensure that institutions maintain a level of capital that is adequate to protect its depositors and creditors.

3.8 Data Processing and Analysis

Kothari (2004), argue that data, processing implies editing, coding, classification and tabulation of collected data so that they are amenable to analysis. The term analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data-groups. The data analytical techniques that was used was quantitative techniques in nature.The mean was established and a test of difference was carried out to determine if the changes in financial performance are significant. The test will be carried out at a 5 per cent level of significance. Other analytical tools that was employed for this study are descriptive statistics such as frequency tables. In extension other inferential statistics such as, Analysis of Variance, correlation analysis and multiple regression was used to elaborate the study further. The following regression model was estimated.

Multiple Regression Model will be used;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y = Financial performance (Dependent variable)

β_0 = Intercept term

β_i = Are the various coefficients of the independent variables

X_1 = Credit Risk Regulation

X_2 = Interest Rate Capping

X_3 = Liquidity Regulation

X_4 = Capital Requirement

ε = error term

4.   RESEARCH FINDING AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis on the effects of central bank regulatory requirements on financial performance of microfinance institutions in Kenya. The study used descriptive and inferential statistics to analyze the findings. Descriptive statistics used mean and standard deviation to present the study outcomes.

4.2 Descriptive Analysis

4.2.1 Description of financial performance of microfinance institutions

Table 1 below presents the average financial performance of microfinance institutions in Kenya as expressed by return on assets

Table 1: Average financial performance of microfinance institutions

	Return on Asset	
Mean Score	1.92	

Source: Researchers, 2019

As can be observed from the Table 1, the average financial performance of microfinance institutions as a whole was 1.92.Compared to other countries financial performance of microfinance institutions as expressed by the above ratios, the Kenyan financial performance of microfinance institutions is average. This is consistent with the findings of Flamini et al. (2009.) According to the above author the average financial performance of microfinance institutions in Sub-Saharan Africa (SSA) was about 2%. Thus, the average financial performance of Kenyan microfinance institutions are about average of the SSA.

4.2 Description of Independent Variables

The study analyzed the financial performance of microfinance institutions in Kenya. It also analyzed central bank regulatory requirements variables namely; credit risk regulation, Interest Rate Capping, liquidity regulation and capital requirement. The variables mean, minimum and maximum and standard deviation is presented as shown in table 4.1.From table 4.1 the average Credit risk regulation loan for listed commercial banks in Kenya is 2.4%.The average Interest Rate Capping is 2.2 with a standard deviation of 0.96664.Further the average Liquidity regulation is 2.2 with a standard deviation of 0.79866 while the average capital requirement is. 2.6 with a standard deviation of 0.98369.

Table 4.1 Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Credit risk regulation	48	1.00	4.00	2.4375	.96550
Interest Rate Capping	48	1.00	4.00	2.2083	.96664
Liquidity regulation	48	1.00	4.00	2.1458	.79866
Capital requirement	48	1.00	4.00	2.6042	.98369
Valid N (listwise)	48				

4.4 Multi-collinearity Statistics

The study conducted a multi collinearity tests to determine if two or more predictor (independent) variables in the multiple regression model are highly correlated. The study used tolerance and variance inflation factor (VIF) values for the predictors as a check for multi-collinearity. Tolerance indicates the percent of variance in the independent variable

that cannot be accounted for by the other independent variable while VIF is the inverse of tolerance. Table 3 below shows that tolerance values ranged between 0.141 and 0.515 while VIF values ranged between 1.898 and 7.097. Since tolerance values were above 0.1 and VIF below 10, then were was no multi-collinearity in the multiple regression model.

Table 2: Multicollinearity Statistics

Statistic	FDI	FD	Rem	FA
Tolerance	0.141	0.425	0.515	0.527
VIF	7.097	2.353	1.942	1.898

4.3 Correlation Analysis

As indicated in the table 4.2 above, there was a moderate positive correlation between credit risk regulation and financial performance of Microfinance Institutions in Kenya (0.820), interest Rate Capping and financial performance of Microfinance Institutions in Kenya (0.842), liquidity regulation and financial performance of Microfinance Institutions in Kenya (0.814) and finally capital requirement and financial performance of Microfinance Institutions in Kenya (0.939).This indicates that an increase in the study variables increase in financial performance of Microfinance Institutions in Kenya. The above results show little evidence on multi co-linearity among the independent variable since the correlations among them are not very strong henceforth all can be used into consequent regression analysis.

Table 4.2 Correlations Analysis

		CRR	IR	LR	CR	FP
CRR	Pearson Correlation	1	.857[**]	.786[**]	.761[**]	.820[**]
	Sig. (2-tailed)		.000	.000	.000	.000
	N	48	48	48	48	48
IR	Pearson Correlation	.857[**]	1	.914[**]	.872[**]	.842[**]
	Sig. (2-tailed)	.000		.000	.000	.000
	N	48	48	48	48	48
LR	Pearson Correlation	.786[**]	.914[**]	1	.868[**]	.814[**]
	Sig. (2-tailed)	.000	.000		.000	.000
	N	48	48	48	48	48
CR	Pearson Correlation	.761[**]	.872[**]	.868[**]	1	.939[**]
	Sig. (2-tailed)	.000	.000	.000		.000
	N	48	48	48	48	48
FP	Pearson Correlation	.820[**]	.842[**]	.814[**]	.939[**]	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	48	48	48	48	48
**. Correlation is significant at the 0.01 level (2-tailed).						

4.4 Regression Results

A multiple linear regression analysis was performed to test the effect of the independent variables on the dependent variable. The average ratings for the four independent variables were used as the indicators for input into the regression model. The coefficient of determination and standard error of the regression model is indicated in Table 4.3. Results in Table 4.3 indicate that the adjusted r^2 was 0.643 indicating that the independent variables explained 64.3% of the financial performance of Microfinance Institutions in Kenya. This indicates that the model had good explanatory power.

Table 4.3: Regression Model Parameters

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.956	.913	.905	.31907

Further, the regression output in Table 4.4 presents the source of variance, mean of variances and the f value. The results indicate that the overall model was significant and could provide important results. This indicates that the model could provide some predictive significance and was a good fit.

Table 4.4: Analysis of Variance of the Regression

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	46.101	4	11.525	113.207	.000
Residual	4.378	43	.102		
Total	50.479	47			

Further, the regression output on significance of the independent variables is presented in Table 4.4.

Table 4.5: Coefficients of Independent Variables

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.455	.054		8.416	.003
Credit Risk Regulation	.874	.090	.820	9.716	.004
Interest Rate Capping	.685	.094	.842	10.598	.003
Liquidity Management	.645	.115	.814	9.516	.002
Capital adequacy requirement	.725	.054	.939	18.466	.002

The results in Table 4.5 indicate that credit risk regulation is significantly and positively associated with financial performance of microfinance institutions in Kenya. The explanation is that when a bank involves in excessive lending, the possibility of defaulting loans increases. This default deteriorates the commercial bank financial performance. However, that lending can be curbed by controlling credit risk which in turn enhances the financial performance.

Further, interest rate spread has a significant and a positive effect on the financial performance of the microfinance institutions in Kenya during the period before and after interest rate cap. The analysis above shows that there was a positive and statistically significant correlation between return on assets of microfinance institutions and interest rates cap at 1% level of significance.

Liquidity regulation positively affect the financial performance of the microfinance institutions in Kenya, thus the study concludes that liquidity positively affect the financial performance. The study also revealed that an increase in operating cash flow ratio positively affect the financial performance of the microfinance institutions,, thus the study concludes operating cash flow ratio positively affect the financial performance of the microfinance institutions in Kenya.

Finally, the results indicate that capital requirement has a significant and a positive effect on the financial performance of the microfinance institutions in Kenya that higher capital adequacy ratios translated to higher financial performance. Since both effects were significant, it can be concluded that financial performance of the microfinance institutions in Kenya is influenced by capital requirement.

5. SUMMARY OF FINDINGS, CONLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter provides a summary, discussion of findings, and gives conclusions, recommendations and suggestions for further research based on the objectives of the study. It comes after identifying the background, problem at hand and the objectives in chapter one, followed by an in-depth literature review done in chapter two. Chapter three set out the methodology that the study used to collect data as well as laying out the analysis methods that were used. Chapter four then analyzed the data obtained from the research instruments.

5.2 Summary of the findings

5.2.1 Credit risk regulation

The study has established that credit risk regulation is positively correlated with financial performance. The explanation is that when microfinance institutions involves in excessive lending, the possibility of defaulting loans increases. This default deteriorates the microfinance institutions financial performance. However, when regulation measures are applied

on the credit risk, situation is put under control which in turn enhances the financial performance. However, the results are contracted with the finding of the Joseph, Edson, Manuere, Clifford and Michael (2012), that indicate that credit risk regulation has a negative relationship towards financial performance. Further findings which stated by Iqbal (2012) implies that credit risk regulation is negatively correlated with financial performance.

5.2.2 Interest Rate Capping

The study concluded that that interest rate capping has a significant and positive effect on the financial performance of the microfinance institutions in Kenya during both the periods before and the period after the interest rate capping. The interest rate cap law set a minimum rate of 70% of the Central Bank Rate as the minimum rate payable on deposits placed with microfinance institutions which led to improved liquidity in the microfinance institutions as more depositors were attracted to the interest rates which were on average higher than before the interest rate capping hence the positive relationship between interest rate cap on deposits and return on assets.

5.2.3 Liquidity regulation

The study established that liquidity regulation is significantly positively related with the financial performance of the microfinance institutions. The positive relationship between financial performance of the microfinance institutions and liquidity regulation is consistent with the study of Lee and Arifin, (2010) who concluded that liquidity regulation positively affect the financial performance of the microfinance institutions and that he higher a company's liquidity ratio, the healthier it is. However other contrary opinion on the relationship between financial performance and liquidity regulation. They argued that higher liquidity means holding higher liquid assets. Liquid assets are less profitable to hold, for example, cash holdings are the most liquid of all investments, but it does not generate any market return at all (Ross, Westerfield, & Jordan, 2003).

.5.2.4 Capital requirement

This study clearly proved to be that capital requirement has a positive relationship with the financial performance of the microfinance institutions in Kenya. This study also established that capital requirement significantly affect the financial performance of the microfinance institutions in Kenya. Capital base of financial institutions facilitates depositors in forming their risk perception about the institutions. Also, it is the key parameter for financial managers to maintain adequate levels of capitalization. Moreover, besides absorbing unanticipated shocks, it signals that the institution will continue to honor its obligations. A sound capital base strengthens confidence of depositors. This ratio is used to protect depositors and promote the stability and efficiency of financial systems around the world.

5.3 Conclusion

5.3.1 Credit risk regulation

From the study, it can be concluded that credit risk regulation is positively correlated with financial performance of microfinance institutions in Kenya. The explanation is that when a bank involves in excessive lending, the possibility of defaulting loans increases. This default deteriorates the commercial bank financial performance. However, that lending can be curbed by controlling credit risk which in turn enhances the financial performance.

5.3.2 Interest Rate Capping

The study concluded that interest rate spread has a significant and a positive effect on the financial performance of the microfinance institutions in Kenya during the period before and after interest rate cap. The analysis above shows that there was a positive and statistically significant correlation between return on assets of microfinance institutions and interest rates cap at 1% level of significance.

5.3.3 Liquidity regulation

The study established that liquidity regulation positively affect the financial performance of the microfinance institutions in Kenya, thus the study concludes that liquidity positively affect the financial performance. The study also revealed that an increase in operating cash flow ratio positively affect the financial performance of the microfinance institutions,, thus the study concludes operating cash flow ratio positively affect the financial performance of the microfinance institutions in Kenya.

5.3.4 Capital requirement

The study concluded that capital requirement has a significant and a positive effect on the financial performance of the microfinance institutions in Kenya that higher capital adequacy ratios translated to higher financial performance. Since both effects were significant, it can be concluded that financial performance of the microfinance institutions in Kenya is influenced by capital requirement.

5.4 Recommendations

The study highly recommends that the microfinance institutions in Kenya should pay more attention to all the above recommendations in order to remain relevant and competitive in service delivery.

5.4.1 Credit risk regulation

The positive relationship between the independent variable and dependent variables implies that an increase in credit risk regulation enhances the financial performance of the microfinance institutions in Kenya. Therefore, this study recommends that big embarks on effective and regular monitoring of the credit from the time of disbursement till the final repayment as a means of minimizing on credit risk and its antecedent negative impact on financial performance. Periodic relevant training programs could also be organized for loan officers particularly in the area of risk management and management of credit. Furthermore, the government should use monetary policies to increase the interest rate so it would indirectly tighten the requirement for credit applications.

5.4.2 Interest Rate Capping

The study recommends that a proper balance between capping on loans and deposits needs to be maintained so that microfinance institutions realize a good return on their assets. Microfinance institutions also need to diversify their investment portfolio so as to take realize a good return on assets so that they do not perform poorly due to interest cap legislation.

5.4.3 Liquidity regulation

From the findings and conclusion, the study recommends that there is need for microfinance institutions to increase their current assets so as to increase their liquidity as it was found that an increase in current ratio positively affect the financial performance. The study further recommends that there is need for microfinance institutions to increase their operating cash flow, through reduction of their credit repayment period in order to positively influence their financial performance.

5.4.4 Capital requirement

Based on the finding of the study, the researcher concluded that capital requirement has a positive and a significant relationship with financial performance of microfinance institutions in Kenya. This leads to recommendations that management of microfinance institutions should hold enough capital as it is an enhancer of financial performance.

5.5 Suggestions for Further Research

The study suggests that further readings should explore on the specific factors that affect each of the study variables. For instance, further studies should aim to establish the determinants of credit risk regulation, Interest Rate Capping, liquidity regulation and capital requirement. Also, further studies can be conducted to establish other factors that influence the financial performance of the microfinance institutions in Kenya. Establishing other factors that influence the financial performance of the microfinance institutions in Kenya can help the regulators to safeguard the financial performance so that appropriate results are obtained for the good of investors and the listed corporate bodies. Also, future studies should include comparison of a simultaneous comparison of the determinant of financial performance of the microfinance institutions in Kenya.

Comparison of different markets can help reach concrete conclusions as regards the subject of the study. Lastly, future researchers are encouraged to include more microfinance institutions and years to increase the sample size improving representativeness. This can be done by adding microfinance institutions from private sector into their research to provide a more accurate and inclusive and suitable finding to be used by others.

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