EFFECT OF CREDIT RISK MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF MICRO-FINANCE INSTITUTIONS IN NAIROBI

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Abstract: **CBK requirements imply that financial institutions in Kenya must employ various risk management techniques for them to meet the performance thresholds set by these institutions. The practices and the extent to which those practices are being used by Kenyan banks to maintain the required benchmarks and remain profitable are largely unexplored. The current guidelines and procedures of credit risk management among Microfinance banks are not sufficient to meet the already existing economic and financial challenges that microfinance banks encounter. This raises a need for continuous analysis and studies on credit risk and how best to manage it to increase bank performance hence this study. The study assessed the effect of credit risk management practices on financial performance of micro-finance institutions in Nairobi. Specifically, it sought to determine the effect of credit risk grading practices, viability identification practices, credit risk control practices and credit reminder practices on financial performance of micro-finance banks in Kenya. The study used modern portfolio theory, adverse selection theory and information asymmetry theory. The study adopted descriptive design The population for this study therefore was 1147 employees in the micro-finance institutions in Nairobi sample size was 96 respondents This study used questionnaires to collect primary data focusing specifically branch managers and credit managers in each branch. The study utilized primary data collected through questionnaires and data analyzed using SPSS V.25 utilizing both descriptive and inferential statistics The findings of the study resulted in an understanding that among the credit risk management practices credit risk grading practices, viability identification practices, credit risk control practices and credit reminder practices were important factors in financial performance of micro-finance banks in Kenya. The study therefore recommends that for organizations to be more competitive so as to cope with more highly dynamic environments there is need to be keener in to enhancing the credit risk management practices. The study recommends that firms should streamline with all parties in risk management improve performance.**

Keywords: **Risk Management Microfinance Institutions, credit risk grading practices Financial Performance.**

1. INTRODUCTION

Background of the Study

Credit creation requires cautious management of the risks associated with it. Credit risk is the most critical and expensive risk associated with financial institutions and its impact on performance is quite significant compared to any other risk associated to the banking sector as it is a direct threat to solvency of the institution (Chijoriga, 2011). Micro-finance

institutions play a significant role with regard to economic growth of any country. Micro-finance institutions act as intermediaries through collection of excess money and lending to investors to finance projects (Kallberg & Udell, 2015). Loans are key assets of commercial banks representing 50-75% of the total amount of assets in the banks. Therefore, efficient management of loans not only affects the lending institution but also the borrowers and the country in totality. Inability to effectively manage loans would lead to accumulation of Non-performing loans that adversely affect performance of commercial banks (Mac Donald & Koch, 2016).

Credit risk is one of the most critical risks across the world among lending institutions. The microfinance industry is growing very fast and gaining recognition in the global financial sector. By December 31, 2010, there were 1,395 Microfinance Institutions in the world with an approximate borrower base of 200 million as reported by the MFIs to the Microfinance Information Exchange. South Asia, East Asia and the Pacific region have the highest growth rates in terms of borrowers in the microfinance institutions sector. Sub-Saharan Africa, Middle East and North Africa have experienced the slowest growth. South Asia; the lead in terms of borrowers with over 50% of the global borrower base (Rifki, 2010). Credit risk management practices in Pakistan include risk identification, assessment, measurement, monitoring and controlling all risks inherent in the business of banking. However, the mechanisms are not fully implemented by the banks leading to increase of non-performing loans due to lack of risk management which threatens the profitability of banks (Haneef, 2012). In England, a study on bank failures indicated that out of the sixty-two banks that existed before 1984, there were cases of untimely repayment of loans and advances (Sabrani, 2015).

Some banks in the USA lend to poorer people who had less chance of paying back their loans than the traditional customers. To manage risks, banks invented new and complex ways to lending processes and invested in new ways to package up the debts. This involved turning loans that could not be traded into type of security that could be traded in ultimately (Berend, 2013). Alshatti (2015) concluded that credit risk management practices had a direct influence on financial performance among Jordanian commercial banks. The researcher concluded that it was important for commercial banks, to have good structures on credit risk management and this included, the right employees with skills on different sections like monitoring, credit analysis, debt recovery loan account application and sales. Omowunmi (2011) noted that only banks with well conceptualized lending and credit administration policies and procedures could survive the emerging competition in the banking industry in Nigeria. The policy instruments set in Nigeria by 2011 to regulate banking operations were inclusive of rigidly administered interest rate structure, unremunerated reserve requirements, directed credit and stabilizing liquidity control measures. Measures to control loan default in Ghana include training before and after disbursement, reasonable interest rate, monitoring of clients and proper loan appraisal. Bank of Ghana monitor and supervise the MFIs regularly so as to ensure safety of clients' deposits and customers' confidence (Addae-Korankye, 2014).

In Kenya, the Microfinance industry over the years experienced growth and risk management challenges that brought increasing calls for regulation and hence the enactment of microfinance act 2006 and Deposit Taking Microfinance Regulations of 2008 (CBK,2008). The Microfinance (Amendment) Act 2013 came to force allowing former Deposit Taking Microfinance Institutions (now 'Microfinance Banks') to operate current accounts, issue third party cheques as well as engaging in foreign exchange trading.

Micro-Finance Institutions

A Microfinance institution is a financial institution specializing in banking services for low income earners. A microfinance institution provides account services to small balance accounts that would not normally be accepted by traditional banks and offers transaction services for amounts that may be smaller than the average transaction fees charged by mainstream financial institutions (Ningshen & Boraian, 2014). Micro-finance institutions are institutions that are licensed by the Central bank to take deposits and advance credit. The micro-finance institutions in the country perform the following function: creation of money, community savings, ensure smooth support of payment mechanisms, ensure smooth flow of international transactions, storage of valuable goods and provision of credit services. In the recent years micro-finance institutions have developed sophisticated systems of risk management. Many micro-finance institutions have been exposed to more risk of loan defaulting due to the increase of the amount of loans advanced. Micro-finance institutions have policies which guide on the process of advancing credit. These policies define on who should access credit and the collaterals involved. In addition it guards its back through insurance. Once this is achieved the micro-

finance institutions financial performance is expected to go up (IFSB, 2015). As the country grows, the need for credit advancement grows.

The central bank has been involved in setting of the interest rate, thus the micro-finance institutions have to be more careful in making decision of credit advancements. In July 2014, the CBK governor announced decrease of the base lending rate to 9.8 and financial institutions were urged to reduce their interest rate to affordable levels. Customers can only put their money on financial institutions which have a permanence growth, thus calling for good management of the risk. For an individual to make a decision on the micro-finance institutions to safe with, the financial performance acts as a guide. The micro-finance institutions in Kenya have observed credit management with care (CBK, 2017). The first microfinance institution to get a deposit taking license in Kenya was KWFT in 2009 and it was the largest non-bank in Kenya, serving 250,000 women only clients. Other DTMIs that were later licensed included SMEP, Remu, Rafiki, Century DTM and Sumac , Uwezo and U&I, bringing total nine DTMIs as of 2013(CBK, 2013). These DTMs were changed into Faulu microfinance bank, Kenya women Microfinance, SMEP microfinance bank, Remu microfinance bank, Rafiki microfinance bank, Century microfinance bank, Sumac microfinance bank, Maisha microfinance, Uwezo microfinance bank and Unaitas Microfinance bank. The licensing of Daraja, Choice and Caritas Microfinance banks in 2015 makes Microfinance banks operating in Kenya to Thirteen (CBK, 2015).

Financial Performance

On a global scale, there seems to be consensus on what constitutes financial performance. Most studies done in the U.S.A. (Gul. 2011; Hereman, 2014), show that financial performance variables relate to the decisions which directly involve items in the balance sheet and income statement. Financial statement indicators include; bank size, capital ratios, liquidity, asset quality, deposits, operational efficiency, risk management etc. In Asia, Samad (2014), observed that most regulators often used financial ratios to evaluate banks performance over the years. Generally, return on asset (ROA), return on equity (ROE), return on capital employed (ROCE) and Net interest Margin (NIM) have been widely used as profitability indicators in Asia where financial institutions are in question. Jahangir, Shill and Haque (2017) in their study in the UAE stated that the traditional measure of financial performance is profitability through stockholder's equity and is quite different in finance industry from any other sector of business, where loan-to-deposit ratio works as a very good indicator of profitability as it depicts the status of asset-liability management of financial institutions. But such firms risk is not only associated with this asset liability management but also related to growth opportunity. Smooth growth ensures higher future returns to holders and there lies the profitability which means not only current profits but future returns as well.

In Africa, Kumbirai, and Webb (2017) investigated the performance of South Africa's commercial banking sector for the period 2005- 2009. Financial ratios are employed to measure the profitability, liquidity and credit quality performance of five large South African based micro-finance institutions. The study found that overall performance increased considerably in the first two years of the analysis. A significant change in trend is noticed at the onset of the global financial crisis in 2007, reaching its peak during 2008-2009. It stands out that profitability and liquidity are key measures of financial performance. In Kenya, most studies conducted in relation to financial performances focus on sector-specific factors that affect the overall financial sector performances (Olweny and Shipho, 2011 and Mengo et al., 2017). However there seems to be consensus around parameters to be used in measuring financial performance of micro-finance institutions and it is mostly inclined towards the CAMEL approach, Return on equity, Return on assets and Net Interest Margin.

Statement of the Problem

Soundjcreditjmanagementjisjajnecessityjformatfinancialjinstitution'sj stabilityjandjcontinuing profitability,jwhilej deterioratingjcreditj qualityjisj thejmostj frequentjcausej ofjpoorjfinancial performancejandj condition.jCBK requirementsjimplyj thatjfinancialj institutionsjinj Kenya

mustemployjvariousjriskmanagementjtechniquesjforjthemtojmeetjthejperformancejthresholdsjsetjbythesejinstitutions.jTh epracticesjandjthejextentjtowhichjthosejpracticesjarejbeingjusedjbyjKenyabanksjtojmaintainjthejrequiredjbenchmarksjan djremainjprofitablejarejlargelyjunexplored.jThecurrentjguidelinesjandjproceduresjofjcreditjriskjmanagementjamongjcom mercialjbanksjarejnot sufficientjtojmeetjthejalreadyjexisting economicjandjfinancialj challenges that commercial banks encounter(Collin-Dufresnej&jGoldstein,j2015). This raises a need for continuous analysis and studies on credit risk and how best to manage it to increase bank performance. The problem around credit management is one that has been debated

not only among financial institutions but also from a country's economic perspective. In Kenya, micro-finance institutions have found themselves in dire situations for not having competent and experienced credit managers. Often times the micro-finance institutions find themselves wrongly pricing credit and hence do not consider all imbedded costs and in turn the risks incurred become greater and difficult to compensate. Kinyanjui (2019) says such inadequacies arise from poor credit grading and viability identification among such firms. The downside scenarios surrounding credit are not properly assessed and its impact on the institution not factored in and that brings about vulnerability and defaulting becomes a norm. Further, in Kenya research around credit management has mainly focused on non-performing loans, loan amounts advanced, models for managing risk. Little has been done around credit grading, viability identification, credit control and reminder practices hence creating a theoretical gap. This study will address that. Studies on the impact of credit risk management practices on performance of commercial banks in Kenya have mixed findings. For instance, Aruwa and Musa (2012) found a strong positive relationship between risk components and the financial performance, Boahene, Dasah and Agyei (2012) and found a positive relationship between credit risk and profitability. Musyoki and Kadubo (2014) found an inverse impact of credit risk management on financial performance. These studies did not focus on other variables in credit risk management and not particularly on credit risk grading, identification of viability, risk control and loan reminder practices. In addition, majority of the studies have focused on individual banks. The study aimed at bridging the gap by assessing the effect of credit risk management practices on financial performance of micro-finance institutions in Kenya.

Research Objective

i) To determine the effect of credit risk grading practices on financial performance of micro-finance banks in Kenya.

Research Hypothesis

H_{O1}: There is no effect of credit risk grading practices on performance of micro finance banks in Kenya.

Significance of the Study

Findings of this study will be important to regulators of commercial banks in Kenya in particular to the Central Bank of Kenya (CBK) that conducts the overall supervision of financial institutions. The information will be useful in their role of promoting financial institutions performance through incorporation into the CBK act, banking act and other related Acts which help in monitoring lending procedure and practice within the commercial banks in Kenya. To commercial banks, this study will provide an insight into the credit risk attributes which could be incorporated in their investment decision processes.

The study was of great significance to board members and stakeholders in commercial Banks. The findings are of help them to understand the relationship between risk management practices and organization performance. The study will help them to clearly understand how effective credit management practices can contribute towards realizations of increased commercial banks performance. The study findings will also benefit the managers in the commercial banks since the findings will equip bank managers with competitive strategic management skills enabling them develop credit risk management policies that will result to formulation and implementation of effective lending practices to achieve their long term goals.

The study will also improve not only researcher's scope of understanding on credit risk management practices but also the general public. These findings will be used as reference material by future researchers interested in further research on credit risk management practices and its effects on financial performance of commercial banks.

Scope of the Study

This study was designed based on credit risk management practices affecting financial performance of micro-finance institutions in Nairobi. The independent variables are credit risk grading practices, identification of viability practices, credit risk control practices and loan reminder practices. The dependent variable is the financial performance of micro-finance institutions in Nairobi. The study was conducted among the 13 micro-finance institutions in Nairobi.

Limitation of the Study

.The research instrument contained close-ended questions that limited the extent to which respondents could give their opinions regarding risk management practices. This challenge was addressed by ensuring that the questions captured in

the questionnaire were able to facilitate collection of data that comprehensively and objectively addressed all the study variables. Another challenge was the skepticism by the and some employees to allow data collection and participate in the study respectively. The researcher assured them that the data collected from them and the resultant study were to be treated with utmost confidentiality; and that they were not required to indicate their identity on the research questionnaire

2. LITERATURE REVIEW

Theoretical Review

The study was guided by three theories which are Modern Portfolio Theory, adverse selection and theory of information asymmetry:

The Adverse Selection Theory

The adverse selection theory was propounded by Stiglitz and Weiss (1981). The adverse selection occurs when client's or borrowers of the bank have features or characteristics which are not observable by the bank when lending and these unobservable features have the potential of leading loan repayment default hence affecting the bank's profitability negatively. The theory assumes that: lenders will be unable to distinguish between banks loan clients of different risk degrees and that all the contracts of the bank loans offered to borrowers are all subject to a limited liability (Berhanu, 2005). The adverse selection theory describes the situation of a bank that cannot distinguish the safe borrowers from risky. In this theory, the bank which is the lender in this case has inadequate information about the loan customers. Riskier loan clients should to be charged a higher rate of interest so as to act as a compensation for an increased default risk than the safer loan clients whose changes of defaulting are very low(Nawai, 2010). Accordingly, safer loan clients ought to be charged a little bit less provided they can be identified accurately from the rest of loan clients or borrowers. Since banks as the lender does not have complete borrowers risk profile information, as such, high average interest rates are normally passed on to all loan clients without considering differences in their risk profile (Armendariz & Morduch, 2010).

In the adverse selection theory, the interest rate may not raise enough to guarantee that all loan applicants secure credit, in times when loanable funds are limited. In general, the volume of credit and level of effort is less than the first-best. Borrowers who have greater wealth to put as collateral obtain cheaper credit, have incentives to work harder, and earn more income as a result (Nawai, 2010). Existing asset inequalities within the borrowing class are projected and possibly magnified into the future by operation of the credit market, a phenomenon that may cause the persistence of poverty (Armendariz & Morduch, 2010). Reduction of informational asymmetries can reduce adverse selection problems in the lending, as well as change borrowers' incentives to repay, both directly and by changing the competitiveness of the credit market. Information asymmetries are the main obstacle for MFIs to provide loans to clients (Nawai, 2010).

According to Silwal (2003) to minimize chances of default, financial institutions usually requires business proposal, borrower past credit information and collateral before approving the loan. MFIs also offer credit through group-based lending method to mitigate adverse selection and to replace the collateral requirement. Pagano and Jappelli (1993) show that information sharing reduces adverse selection by improving MFI's information on credit applicants. In their model, each bank has private information about local credit applicants, but has no information about nonlocal applicants. If MFIs exchange information about their client's credit worthiness, they can assess also the quality of non-local credit seekers, and lend to them as safely as they do with clients. Information sharing can also create incentives for borrowers to perform in line with MFIs' interest. Klein (1982) shows that borrowers repay their loans because they know that defaulters will be blacklisted, reducing external finance in future.

According to Kipyego (2013), the adverse selection problem signals that when lenders cannot distinguish between good and bad borrowers, all borrowers are charged a normal interest rate that reflects their pooled experience. If this rate is higher than worthy borrowers deserve, it will push some good borrowers out of the borrowing market, forcing in turn to banks charging even higher rates to the remaining borrowers. To mitigate adverse selection problems, credit providers take their loan applicants through an elaborate screening procedure before granting a loan, this has been able to reduce loan default in financial institutions. The theory is relevant to this study since financial institutions need to do a review on their customers to differentiate between creditworthy and non-creditworthy borrowers.

3. EMPIRICAL REVIEW

Credit Risk Grading Practices in Kenya Financial Institutions

Mosharrafa (2013) found that credit risk grading technique is an important tool for credit management as it helps a bank to understand various dimensions of risk involved in different credit transactions. A credit risk grading system define the risk profile of borrower's to ensure that account management, structure and pricing are commensurate with the risk involved. Risk grading is a key measurement of a Bank's asset quality and as such, it is essential that grading is a robust process. Borrower risk grades should be clearly stated on credit proposal.In case of default on interest or principal repayment on the part of a borrower, a formal reminder procedure has to be initiated. Reminder procedures are part of the credit monitoring of individual credit exposure. In order to avoid overlooking the sending out of reminders, financial institutions should apply standardized and automated reminder procedures. If the information technology system registers occurrence of a default on interest or principal repayment, a collection letter should automatically be sent to the borrower. The length of the waiting period has to be stipulated in the internal guidelines and implemented in the systems. This ensures that collection letters are sent out in the time and alarm systems appropriately triggered (Ngwa, 2010). Research-based on credit risk management differ in many respects. From the review done in this study, Owusu (2018) studied credit practices in rural banks in Ghana and found that the appraisal of credit application did not adequately assess the inherent credit risk to guide the taking of appropriate decisions. Another research on credit risk management includes a research done on evaluating credit risk exposure in agriculture (Lyubov, 2013). The framework is identified for modelling credit risk in agriculture and adapts to loan portfolio management only. This does not adequately consider other factors affecting credit risk like fraud, money laundering etc. Silikhe (2018) studied credit risk management in microfinance institutions in Kenya and found that despite the fact that microfinance institutions have put in place very strict measures to manage credit risk; loan recovery is still a challenge to majority of institutions. In summary, most of the prior researches on credit risk management have not focused on practices to manage credit risk hence the need for this research.

Financial performance

Performance is defined as the reflection ofthe way in whichresources of a Bank are used

which enables it to achieve its objectives. Financial performance is the employment of financial indicators to measure the extent of objective achievement, contribution to making availablefinancial resources and support of the Bank with investment opportunities (Heremans, 2014).Financial performance of a firm is themeasure of the levelof the organization's profit or loses within a specified period of time. Several measures have been used to measure the financial performance of Banks. These measures include: Return on Equity (ROE), Return on Asset (ROA) and Net Interest Margin (NIM) (Alexandru, 2015).

Return on Equity (ROE) refers to how much profit a company earns compared to the total amount of shareholder equity investedor found on the balancesheet. A business that has a highreturn on equity is more li kely to be one that iscapable of generating cash internally. Thus, thehigher the ROE the better thecompany is in termsof profit generation.ROE is the ratio of Net Income after Taxes divided by Total Equity Capital. It represents the rate of return earned on the funds invested in the bank by its stockholders. ROE reflects how effectively a bank management is using shareholders' funds (Khrawish, 2011).

Return on Asset (ROA) is a major ratio that indicates therofitability of a bank. It is a ratio of Income to its total asset. It measures the ability of the bank management to generate income byutilizing company assets at theirdisposal. It shows howefficiently the resources of the companyare used to generate theincome. It furtherindicates theefficiency of the management of a company in generating net income from all the resources of the institution (Khrawish, 2011).

Net Interest Margin(NIM) is a measure of the difference betweenthe interest income generatedby banks and the amount of interest paid out to their lenders relative to the amount of their (interest earning) assets. It is usually expressed as a percentage of whatthe financial institutionearns on loans in a specific time period and other assets minus the interest paid on borrowedfunds divided by the averageamount of the assetson wh ich it earned income in that time period(the average earning assets). The NIM variable is defined as the net interestincom

e divided bytotal earnings assets. Netinterest margin measures the gap betweenthe interest income the bankreceives on lo ans and securitiesand interest cost of its borrowed funds. It reflects the cost ofbank intermediation services and the effici ency of thebank. The higherthe net interest margin,the higher the bank's profit and the more stable the bank is (Gul et al., 2011).

Conceptual Framework

Mugenda and Mugenda (2008) asserted that a conceptual framework is a model that shows relationships between the dependent variable and independent variables. The Figure 3.1 shows the relationship between the dependent and independent variables.
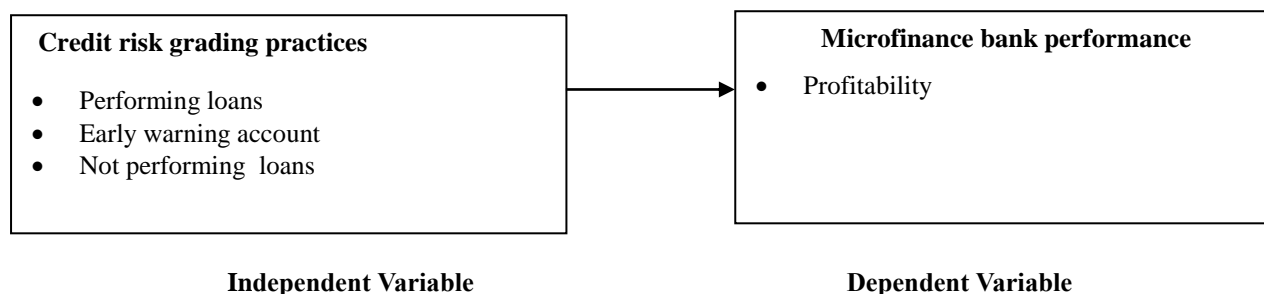
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┌─────────────────────────────────┐          ┌─────────────────────────────────┐
│  Credit risk grading practices   │          │  Microfinance bank performance   │
│                                  │  ───────▶│                                  │
│  • Performing loans              │          │  • Profitability                 │
│  • Early warning account         │          │                                  │
│  • Not performing  loans         │          │                                  │
│                                  │          │                                  │
└─────────────────────────────────┘          └─────────────────────────────────┘
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Independent Variable   **Dependent Variable**

Figure 3.1: Conceptual Framework.

Critique of the Existing Literature relevant to the Study

Even though extensive research has been conducted on credit management practices, only a few studies have been carried out in Kenya commercial banks on the relationship between credit management practices and financial performance. Some studies focus on loan repayment using old panel data. In addition majority of the studies in Kenya were conducted using primary data which could not clearly indicated financial performance in terms of ROA, ROA and Net Interest Margin. The study theories have however been supported by (Tanui, Wanyoike & Ngahu, 2015; Armendariz & Morduch, 2010; Weinberg, 2006).

While impact of credit management practices is recorded by many researchers and practitioners, only a few studies focus on credit management practices under study. Some of the existing studies mainly focus on other variables. Studies that have focused on credit management practices and financial performance have focused on other money lending financial institutions and not specifically micro-finance institutions. In addition, some studies were conducted in more economically stable countries, other researchers used a very small size, different sampling techniques, varying data collection tools and data were analyzed using various statistical models. Based on these short comings, this study aims to conclusively assess the relationship between credit management practices and financial performance of commercial banks in Kenya.

4. RESEARCH METHODOLOGY

Research design

According to Cooper and Schindler (2003) a research design is a framework for specifying the
relationship among the study's variables and outlineprocedures for every research activity   ranging from sampling procedures to data collection to analysis and presentation of findings.
There are several designs that can be undertaken inresearch design, these include: exploratoy,descriptive, causal, experim ents,survey and case study (Bless,Smith, &Kagee,2008). The studyadopted a descriptive design because the main purpo se of this studywasto obtain a generaloverview of credit risk management practices among microfinance institutions in N airobi.

Descriptive surve   is a research design   and its   purpose isthe descriptionof the state of affairs as it exists at the present since the researcherhas nocontrol over variables and can only report
what is happening (Kothari, 2008). According to Burns and Grove (2003), descriptive researchis designed to provide a pi cture of a situation as it naturally happens. It maybe used to justifycurrent practice andmake judgment andalso to develop

theories. The purpose of descriptiveresearchis to observe, describe and document aspectsof a situation as it naturally occurs(Mugenda & Mugenda, 2003). It does not look for anytwo specific relationships, nor correlate two or more variables.

Target Population

A population entails all items in a field of research. Mugenda and Mugenda (2003), define a population as being made up of the entire group of people or items a research is going to be carried out on before a sample size is selected. The population however must be carefully chosen and defined in order to come up with best results. This is due to the fact that a population that does not have characteristics of the study will lead to different results. The population for this study therefore was 1147 employees in the micro-finance institutions in Nairobi (Association of Micro-Finance Institutions, 2018).

Sampling and Sampling Techniques

A sample is a representation of the population. It is also defined as a subset of the population under the study. A sample was selected to represent the population. Study of samples, rather than the population would help to be economical both in terms of money and time (Stringer, 2008). The general rule in quantitative research is to use the largest population in order to represent and generalize the whole population of your target (Gall, 1996). But this depends on the type of research and quality of the information available for the study. According to Gay and Peil (1992), there are two types of sampling design; Probability and Non-probability sampling. Probability sampling is based on the concept of random selection which is a procedure that assures that each element of the population is given an equal chance of selection. Kothari (2004) further notes that the non-probability sampling is non-random and hence subjective, in that each member does not have an equal chance of being selected. This study employed purposive sampling.

In purposive sampling the selection of samples depends on the judgment or discretion of the researcher as to the type of respondents needed for the research (Chandran, 2004). It is therefore a sampling method which includes subjects selected on the basis of specific characteristics and it eliminates those who do not meet the set criteria. Cooper and Schindler (2003), concurring with Chandran, on purposive sampling, in the selection of respondents based on discretion of the researcher, and expert knowledge of the respondents in the area of study. This study purposively selected the credit risk manager and the branch manager to interview. A total of 48 branches for micro-finance institutions in Nairobi County were the focus point. Each branch was issued with two questionnaires to be completed by the branch manager and the credit manager which made a sample size of 96 respondents

Research Instruments

Data collection instruments according to Cooper and Schindler (2003), are tools used for gathering empiricalevidence in order to gainnew insight about a situation and answer questionsthat prompt the undertaken research. This study used questionnaires to collect primary data.Questionnaires are a series of written questions on topics about which respondent's views orperceptions are sought (Mugenda and Mugenda, 2003). Chandran (2004) explains that openended questions or unstructured questions are those for which alternative are provided whilecloseended questions or structured questions donot provide alternatives for the respondents tochoose from. The questionnaires in this study used both open and closed ended questions and was administered to respondents with the help of a research assistant who was required to complete them.

Data Collection Procedure

The researcher started by explaining to all participants in the study the role they were expectedto play and the importance of providing honest information through a cover letter forwardingthe questionnaire. The researcher also assured the participants that the information they gavewould be treated with strict confidence and to be strictly utilized for the purpose of the study. An envelope marked "questionnaire" and proposal topic was provided so that once the respondent completes the questionnaire, they seal it to ensure confidentiality is maintained andguarded against potential victimization from any quarters. Theresearcher ensured respondentshad adequate time to complete thequestionnaires. They were administered through a drop and pick method.

Pilot test

The questionnaire that was used in this study was pre-tested for efficiency. Pre-testing was conducted to detect weakness in the design, data collection instruments and procedures that wereused to carry out the study. As Mugenda and Mugenda (2003),argue, pretesting of toolshelpsthe researcher assess the efficiency andclarity of the instruments and their use. Cooper, Donaldand Schindler, (2003) further explain that pretesting allows errors to be identified and

corrected.It also acts as a tool for training the research team prior to the actual data collectiontime. This study pre-tested the questionnaire in at least 10% of the sampled population as supported by Kothari (2004). The pilot test was conducted inSumac Microfinance and Remu Microfinance which have 4 branches each and almost similar incharacteristics with the other selected Micro-finances in this study.

Reliability

Reliability of an instrument being the consistency of an instrument in measuring what it is intended to measure was established by first ensuring internal constancy approach followed by carrying out a pilot study. A questionnaire is considered reliable if the Cronbach's Alpha coefficient is greater than 0.70 (Katou, 2008). The four independent variables (credit risk grading practices, viability identification practices, credit risk control practice, and credit reminder practices) and the dependent variable (financial performance) were subjected to reliability test using SPSS and the results obtained are shown in Table 4.1. 10% of the sample size which translates to 11 participants was used in the pilot study. The results indicated that all the variables obtained had Cronbach's Alpha greater than 0.7 thereby achieving the recommended 0.7 for internal consistence of data (Mugenda & Mugenda, 2008).

Table 4.1: Reliability Test

Variable	Cronbach alpha
Credit risk grading practices	.931
Viability identification practices	.862
Credit risk control practices	.876
Credit reminder practices	.883
Financial performance	.795

Validity

Data validity is the degree to which a test measures that which it is supposed to measure (Porter, 2010). Mugenda and Mugenda (2008) define validity as the degree to which the research results obtained from the analysis of the data represent the phenomenon under study. According to Table 4.2 Kaiser –Meyer -Olkin measure of sampling adequately indicated KMO value of greater than 0.5 meaning thereby that the sample size was good enough to treat the sampling data as normally distributed. Bartlett's test sphericity which tested the null hypothesis "item to item correlation matrix based on the responses received from respondents for all the effective variables was an identity matrix". The Bartlett's test was evaluated through chi-square test having as shown in Table 4.2 for the entire variables and were all significant at 0.000 level of significant, indicating that null hypothesis was rejected.

Table 4.2: Test for Validity

Factors	KMO test	Barlett's test of sphericity		
		Chi-Square	Df	Sig.
Credit risk grading practices	0.904	171.50	4	0.001
Viability identification practices	0.816	176.48	4	0.003
Credit risk control practices	0.885	218.41	4	0.029
Credit reminder practices	0.810	175.64	4	0.004
Financial performance	0.793	154.91	4	0.021

Data processing and analysis

Data analysis according to Bless et al., (2008), is the process of organization, manipulation and interpretation of data collected. Cooper and Schindler (2003) argue that data analysis involves reducing accumulated data to manageable size,

developing summaries, looking for patterns, and applying statistical techniques such as tables, charts, and percentages. Data analysis for this study integrated qualitative and quantitative methodology in order to derive meaning from the data collected. The data was analyzed using statistical package for social sciences SPSS V.24 and presented through percentages, means, standard deviations and frequencies in graphical and tabular manner. Co-relation and Regression analysis was also incorporated to determine the relationship and goodness of fit of the variables. The study engaged a regression analytical model to establish the link between the dependent and independent variables as below:

$(Financial\ Performance\ _j = \beta_0 + \beta_1(TM)_1 + \beta_2(RP)_2 + \beta_3(OC)_3 + \beta_4(CD)_4 + Error\ term\ldots\ldots$ (1) Where:

Financial Performance	=	Depicts the dependent variable
CRG	=	Credit Risk Grading practices
VIS	=	Viability Identification practices
CRC	=	Credit Risk Control practices
CR	=	Credit Reminder practices

RESEARCH FINDINGS AND DISCUSSIONS

Response Rate

In this study, out of a total of 96 questionnaires that were distributed to the sampled respondents, and all of them were filled and returned. This made up a response rate of 100%.

Table 4.3: Questionnaire Return Rate

		Frequency	Percent
Valid	Returned	96	100.0
	Not Returned	0	0.0
	Total	96	100.0

The study established that the researcher employed various strategic techniques that were attributed to the high response rate. For example, the researcher recruited a research assistant who was tasked with the distribution and collection of the questionnaires.

Demographic Characteristics of the Respondents

This section contains the analysis of information on respondent's gender, level of education, and years worked in the given station. The main purpose of this was to find out any trend from the respondents profile that was directly linked to the variables of the study.

Gender of the Respondents

The study sought to establish the gender of the respondents in the study, Table 4.4 shows the distribution of the respondents according to their gender.

Table 4.4: Gender of the Respondents

Gender	Frequency	Percent	Mean	Std. Deviation
Female	43	45.3	1.345	.782
Male	53	54.7		

According to the study findings, majority of the respondents were male 54.7% while female respondents were 45.3% with a deviation of 0.782.

Years Worked in the Microfinance

The study sought to establish the length of time the respondents had worked in the microfinance; Table 4.6 shows the distribution of the respondents according to years of stay in the organization.

Table 4.5: Length of time in the microfinance

Age	Frequency	Percent	Mean	Std. Deviation
1-5 years	16	16.2	2.20	1.161
6-10 years	41	43.2		
11-15 years	27	28.0		
More than 15 years	12	12.6		

According to the findings in Table 4.6, majority of the respondents 43.2% had worked in the microfinance for between 6-10 years. Ideally when combined, more than 83.8% had worked for the organization for more than five years and only 16.2 % had worked with the organization for less than six years. From the findings, the researcher concluded that majority of the respondents had worked in the organization for quite some time and hence would provide valid and credible information on employee performance.

Level of Education of the Respondents

The study sought to establish the education of the respondents in the study, Table 4.7 shows the distribution of the respondents according to their education level.

Table 4.6: Highest level of Education

Level	Frequency	Percent	Mean	Std. Deviation
Certificate	10	10.0	2.19	0.924
Diploma	29	29.8		
Undergraduate	39	41.0		
Postgraduate	18	19.2		

4. 5 Descriptive Statistics of Credit Risk Grading Practices and Financial Performance

Descriptive analysis of the responses was done in the scale of 1-5(where 1=Strongly Disagreed (SD), 2=Disagreed (D), 3=Neutral, 4=Agreed (A), and 5 = Strongly Agreed (SA). The summary of the responses was as tabulated in Table 4.7.

Table 4.7: Descriptive Statistics on Credit Risk Grading Practices

Description	N	SD (%)	D (%)	Neutral (%)	A (%)	SA (%)	Mean	S.D
In my firm Risk grading is performed at regular intervals, under management supervision	96	10 (10.4)	14 (13.8)	21 (20.5)	40 (41.5)	13 (13.8)	4.21	1.21
In my firm, we assign risk grades to loans in our portfolios	96	4 (4.2)	12 (12.8)	22 (22.8)	45 (46.7)	13 (13.5)	4.15	1.132
In my firm we carefully observe borrower behavior patterns	96	11 (11.8)	13 (13.8)	20 (21.1)	36 (37.0)	16 (16.3)	4.04	1.268
In my firm we carefully assess a customer's prior credit history and repayment rate	96	5 (5.5)	18 (18.3)	24 (24.5)	26 (27.3)	23 (24.2)	3.65	1.263
In my firm we consider loans anticipated as low risk credit	96	2 (2.1)	15 (15.9)	20 (21.1)	34 (35.3)	25 (25.6)	4.24	1.155
In my firm loans that show deviations are considered potential risk credit	96	14 (14.5)	17 (18.0)	22 (22.8)	22 (23.2)	21 (21.5)	3.98	1.321

In my firm Risk grading is performed at regular intervals, under management supervision(mean =4.21; std dev. = 1.21).In my firm, we assign risk grades to loans in our portfolios(mean =4.15; std dev. = 1.132).In my firm we carefully observe borrower behavior patterns (mean =4.04; std dev. = 1.268).In my firm we carefully assess a customer's prior credit history and repayment rate(mean =3.65; std dev. = 1.263).In my firm we consider loans anticipated as low risk credit(mean =4.24; std dev. = 1.155).In my firm loans that show deviations are considered potential risk credit(mean =3.98; std dev. = 1.321)

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Descriptive Statistics of the Responses on Financial Performance

In the scale of 1-5(where 1=Strongly Disagreed (SD), 2=Disagreed (D), 3=Neutral, 4=Agreed (A), and 5 = Strongly agreed (SA)), the respondents were asked to rate the financial performance of the respective microfinance. The summary of the findings is as shown in Table 4.8.

Table 4.8: Descriptive Statistics on Financial Performance of the Microfinance

Description	N	SD (%)	D (%)	Neutral (%)	A (%)	SA (%)	Mean	S.D
Profitability in our firm has been increasing in the recent past	96	2 (2.1)	12 (12.1)	21 (21.8)	40 (41.9)	21 (22.1)	4.24	1.207
My firm realizes more Gross profit margin over the laid out investment by shareholders owing to credit risk management	96	10 (10.0)	12 (12.8)	26 (26.6)	32 (33.9)	16 (16.6)	4.02	1.192
The operating profit margin experienced at our firm is greater than the operating costs owing to credit risk management	96	11 (11.8)	12 (12.5)	26 (26.6)	34 (35.6)	13 (13.5)	3.91	1.192
Return on Equity being experienced in our institution is due to proper credit risk management practices	96	9 (9.3)	13 (13.5)	27 (28.0)	34 (35.3)	13 (13.8)	4.14	1.151
Cash return on assets in our institution has increased due to the credit risk management practices	96	11 (11.1)	10 (10.7)	17 (18.0)	27 (28.4)	31 (31.8)	4.15	1.164

Profitability in our firm has been increasing in the recent past (mean =4.24; std dev. = 1.207)My firm realizes more Gross profit margin over the laid out investment by shareholders owing to credit risk management(mean =4.02; std dev. = 1.192)The operating profit margin experienced at our firm is greater than the operating costs owing to credit risk management(mean =3.91; std dev. = 1.192)Return on Equity being experienced in our institution is due to proper credit risk management practices(mean =4.14; std dev. = 1.151)Cash return on assets in our institution has increased due to the credit risk management practices(mean =4.15; std dev. = 1.164)

Inferential Statistics Analysis

Table 4.9: Correlation between Credit Risk Grading Practices and Financial Performance

		Financial performance	Credit risk grading practices
Financial performance	Pearson Correlation	1	
	Sig. (1-tailed)		
Credit risk grading practices	Pears'on Correlation	.716	1
	Sig. (1-tailed)	.002	
	Sig. (1-tailed)	.008	.282
	N	96	96

*. Correlation is significant at the 0.05 level (1-tailed).

Hypotheses Testing

Hypothesis 1: Credit Risk Grading Practices on Financial Performance

H_{o1} *There is no effect of credit risk grading practices on financial performance of micro finance banks in Kenya.*

Table 4.10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.657[a]	.431	.437	5.03507

From the study findings in Table 4.10, the value of R-square is 0.431. This implies that, 43.1% of variation of financial performance of micro finance banks in Kenya was explained by credit risk grading practices.

Table 4.11: ANOVA Test

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2320.7741	1	3320.741	170.431	.002[b]
	Residual	4704.176	95	25.352		
	Total	7024.916	96			

a. Dependent Variable: financial performance

b. Predictors: (Constant), credit risk grading practices

From the findings in Table 4.11, at 0.05 level of significance the ANOVA test indicated that in this model the independent variable namely; credit risk grading practices is important in predicting of financial performance of micro finance banks in Kenya as indicated by significance value=0.002 which is less than 0.05 level of significance (p=0.002 < 0.05). These results agree with the study by Korit, (2014) which sought to establish the outcome of credit risk management on the fiscal performance of DTMs that are licensed by the Central Bank. He found out a significant relationship between the credit risk management and the financial performance.

Table 4.12: Coefficients Model

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.476	.712		6.285	.000
	Credit risk grading practices	0.510	.026	.910	19.927	.002

a. Dependent Variable: Financial Performance

From Table 4.12, the study findings revealed that credit risk grading practices had significant influence on financial performance of micro finance banks in Kenya (t-statistic=19.927, p-value=0.002< 0.05),this is consistent to Chijoriga 2018 who also found positive relationship with performance. Therefore at 5% level of significance the null hypothesis was rejected, indicating that credit risk grading practices had a positive significant relationship with financial performance of micro finance banks in Kenya. Thus, for every unit increase in credit risk grading practices there was a corresponding increase of financial performance of micro finance banks in Kenya by 0.510.

Multiple Linear Regression for all the Variables

Table 4.13: ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4826.804	4	1456.701	33.122	.011[a]
	Residual	10721.669	92	43.980		
	Total	15548.473	96			

a. Predictors: (Constant), Credit risk grading practices, Viability identification practices, Credit risk control practices, Credit reminder practices

b. Dependent Variable: financial performance

The ANOVA test is used to determine whether the model is important in predicting the financial performance of micro finance banks in Kenya. At 0.05 level of significance the ANOVA test indicated that in this model the independent variables namely; Credit risk grading practices, Viability identification practices, Credit risk control practices, Credit reminder practices were predictors of financial performance of micro finance banks in Kenya as indicated by significance value=0.011 which is less than 0.05 level of significance (p=0.011<0.05).

Table 4.14: Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.296	2.218		4.994	.002
	Credit risk grading practices	0.211	.065	.229	3.229	.017
	Viability identification practices	0.338	.083	.071	.943	.001
	Credit risk control practices	0.198	.102	.156	1.944	.020
	Credit reminder practices	0.012	.066	.377	5.008	.011

a.   Dependent Variable: financial performance

Letting Y be financial performance, X_1 be credit risk grading practices, X_2 be viability identification practices, X_3 credit risk control practices, and X_4 be credit reminder practices, using the regression coefficients in Table 4.31, we have;

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

$$Y = 9.296 + 0.211 * X_1 + 0.338 * X_2 + 0.198 * X_3 + 0.012 * X_4$$

From the equation above when credit risk grading practices is increased by one financial performance will increase by 0.211, a unit increase in viability identification practices will result in 0.338 increase in financial performance, a unit increase in credit risk control practices will result to 0.198 increase in financial performance, and finally a unit increase in credit reminder practices will result to 0.012 increase in financial performance of micro finance banks in Kenya.

5.   SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter shows the summary of the findings based on the research objectives and presents the conclusion and recommendations whose objective was to assess the effect of credit risk management practices on financial performance of micro-finance banks in Kenya

Summary of the Findings

It shows both descriptive and inferential statistical findings whose key results and interpretations on credit risk management practices on financial performance of micro-finance banks in Kenya

Credit Risk Grading Practices on Financial Performance

From the study findings, the value of R-square is 0.431. This implied that, 43.1% of variation of financial performance of micro finance banks in Kenya was explained by credit risk grading practices. At 0.05 level of significance the ANOVA test indicated that in this model the independent variable namely; credit risk grading practices was important in predicting of financial performance of micro finance banks in Kenya as indicated by significance value=0.002 which was less than 0.05 level of significance (p=0.002 < 0.05).

Conclusions of the study

The findings of the study resulted in an understanding that among the credit risk management practices credit risk grading practices is important factors in financial performance of micro-finance banks in Kenya. The intention of this study was to produce relevant results which were practical for organizations. The findings of the study indicated that credit risk management practices were important drivers to increase performance. Microfinance banks lack understanding of what constitutes a comprehensive set of credit risk management practices. The findings of this study have implications to managers in decision-making processes they can use to increase their financial performance with areas that requires higher or lower investment to support responsiveness. The practitioners may gain more understanding as well as direction in the academic body of knowledge, which involves financial performance. The findings of the study will also assist policy makers in providing justification for allocation of resources and maintenance

Recommendations

The study therefore recommends that for organizations to be more competitive so as to cope with more highly dynamic environments there is need to be keener in to enhancing the credit risk management practices. The study recommends that firms should streamline with all parties in risk management improve performance. Hence a more in-depth analysis is required to further the findings about the risk management, therefore further research is recommended to confirm the findings of the study in developing economy. Based on the findings, financial institutions should focus on risk management particularly important in the decision making process and as a key element of performance

Recommendations for future studies

i. The current research focused on financial institutions in Nairobi County in Kenya so it can also be done on a wider perspective to include all regions.

ii. The relationship between management capabilities and organizational performance of financial institutions in Kenya.

iii. Across-boundary research on other financial institutions other than what was mentioned. In future studies should collect data from a larger population and compare with other firms to further validate or extend theories and variables identified in this study.

iv. Current study focused on microfinance institutions another study can be done on SACCO's which are rapidly coming up in the dynamic market environment.

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