

Microcredit Risk Management Strategies and Loan Portfolio Quality of Microfinance Institutions in Kenya

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Abstract

The study investigated the effects of Microcredit risk strategies on the loan portfolio quality of microfinance institutions in Kenya. The analysis is based on a panel dataset of 14 microfinance institutions in the period 2017 to 2021. The study was guided by the following theories the institutional theory, the theory of information asymmetry, the theory of delegated monitoring and the modern portfolio. The study will be useful to the MFIs managers and will help them devise good policies to ensure borrowers are well screened to improve portfolio quality while improving the cases of loan defaults. The study adopted a desktop methodology. Desk research refers to secondary data that which can be collected without fieldwork. The quality of loan portfolio has been affected most by nonperforming loans and has affected largely the microfinance institution's profitability and their financial performances, there have not been adequately featured in any of the studies reviewed. To the academicians and researchers, they will be furnished with relevant information regarding microcredit risk management and loan portfolio quality of the Microfinance institutions in Kenya. This will also contribute to the general body of banking sector and form a basis for further research. The regulators of Bank Sector will use it to formulate stringent policies to tame the rising cases of non-performing loans, evaluating how successive their approach has been identifying the gaps and adjust.

Keywords: *Non-Performing Loan, loan portfolio quality, microcredit risk strategies, Microfinance institutions*

1.0 Introduction

Lending is the main operation of a bank through which banks provide their customers with funds requested by them, being a commitment to repay the lent amount of money with interest. Granting loans is a core activity that may generate significant profits for the bank but may also lead to losses (Cocriş & Chirleşan, 2007). Lending is not an exact science; it is not possible to ensure that the amount lent to a customer will be repaid with interest by using a formula or applying a theory. Therefore, credit approval and granting must rely on prudential banking as fundamental principle (Trenca, 2008a), as well as on the analysis of business viability and realism to assess the borrower's ability to repay the loan plus the interest.

Poor performance is seen as an increasing concern for the MFIs, because their loan portfolio represents their main asset and also their major source of risk (Micro Rate, 2014). Therefore, the loan portfolio quality is very critical. The sustainability of the MFIs depends on a good portfolio quality. Kenya has had its fair share of banking challenges since 1980s, resulting in

major failures in the banking industry due to increased NPLs, levels (Musau, 2014). Muriithi (2013) postulates that the Kenya banking sector is facing crises due to the massive accumulation of NPLs, an insinuation supported by Karumba and Wafula (2012) who indicate that there is an observed high default rate of bank loans amounting to an estimated 54% of bank total credit risk.

Kenyan CBs registered increased NPLs as evidenced by Central Bank of Kenyan (2016) which reported the widely increasing accumulation of NPLs among Kenyan CBs with common financial crises amongst these banking institutions and empirical literature on commercial banks in the country (Atem, 2017; Gathaiya, 2017; Muchoki & Were, 2016, Genga, 2016; Musau, 2014; Muriithi, 2013; Ongore & Kusa, 2013). Empirical study by Gathaiya (2017) revealed that there is an increasing accumulation of NPLs among Kenyan commercial banks which prompts financial crises among these financial institutions. Muchoki and Were (2016) found that these NPLs result in continued unhealthy operating environment within the banking sector leading to challenges including financial distress. As Genga (2016) indicates, some commercial banks in Kenya collapsed because of the NPLs' accumulation. Since CBs are seeking to maximize their profits for their shareholders, they sometimes enlarge their interest rate spread (IRS), by advancing loans at higher rates of lending and lower deposit rates (Ghasemi & Rostami, 2016; Irungu, 2013).

The collateral requirement by microfinance institutions has been considered necessary to enhance sustainable credit facilities for borrowers. Most microfinance institutions require collateral from their loan applicants before providing funds to guarantee repayment and institutional performance. Godquin (2004) adds that collateral obligation in the process of borrowing from microfinance institutions ranges up to and at times above 100 percent of the loan principal. Collateral requirements for borrowers' lending purposes are considered either physical (traditional) collateral or social (group) collateral and personal guarantee. Lenders use these instruments as part of procedures to determine the client's worthiness before loan endorsement.

However, Inkumbi (2009); Armendariz and Morduch (2010); Babu and Singh (2007) argue borrower's security needs to be featured by appropriate title, value stability as well as marketability. Moreover, security has to be regarded as an assurance against any unexpected event on the part of the lender. Therefore, microfinance institutions should not overlook appraising for the borrower's character and/or capacity to substitute security. Lagat et al. (2013) comment that in the process of appraising clients for a loan, consideration of safety by microfinance institutions should be the last in its options. To ensure repayment, microfinance entities are advised not to extend loans to clients as a substitute for the guarantee offered. Instead, the security of a borrower should only provide support in the situation where a borrower defaults on repayment. Similarly, Ayogyam et al. (2013) contend that to minimize problem loans, lending institutes need to conciliate various collateral forms in combination with each other to ensure loan recovery.

Table 1: Nonperforming Loans in Kenya

NPLs as percentage of Gross Loan			
YEARS	NPLs (Kshs M)	Gross Loan (Kshs M)	NPGs Gross Loan
2021	460,008,5	3,255,429	14.13
2020	436,067.0	3,006,104	14.51
2019	335,929.0	2,690,910	12.48
2018	316,712.0	2,483,518	12.75
2017	264,617.0	2,158,530	12.26

Source: CBK (Various Years) Bank Supervision Annual Report

1.1.1. Loan Portfolio Quality

A loan portfolio quality is the largest asset that microfinance institutions possess (Samba, 2017; Ssekiziyivu et al., 2017; Klomp, 2018). Non-performing loans (NPLs) are loans where the borrower does not make payments in accordance with the agreed obligations. NPLs will run into problems if the customer does not pay back the value of the contract (Bholat, et al., 2016). When borrowers are unable to repay their loans over 30 days, it becomes a default. This practice indicates microfinance firm is more vulnerable to credit risk (Agasha et al., 2020).

However, Safiullah and Shamsuddin (2018) considered credit risk as late payment of more than 90 days by borrowers to the contractual term. Therefore, De Oliveira (2017) argued that MFI with lower levels of portfolio risk has a good quality of loans. bank managers and regulators use the ratio of nonperforming loans to total loans (NPLs) and loan loss provision to total loans (LLP) as the indicator of the quality of loan portfolio (Pop, Cepoi, and Anghel, 2018). The quality of the loan portfolio is calculated as the ratio of the non-performing loans (impaired loans) and advances to the gross value of total loans and advances (NBP, 2020). Nonperforming rates (NPLs) are loans where the borrower has difficulties making the scheduled payments to cover interest and/or capital reimbursements.

When the payments are more than 90 days past due, or the loan is assessed as unlikely to be repaid by the borrower, it is classified as an NPL. The quality of these loans determines the risk posed to the microfinance institution (Addai & Pu, 2015). A loan portfolio is of good quality when it has minimal non-performing loans/assets, a low Portfolio at Risk, and Low Probability of Default (Onuko, Muganda, & Musiega, 2015).

1.1.2. Microcredit Risk Management

According to Fernando (2008), risk management, in relation to an MFI is the process of controlling the likelihood and potential severity of an adverse event; it is about systematically identifying, measuring, limiting, and monitoring risks faced by an institution. Services are relatively small and simple when a new microfinance bank commences operations. According to Agene (2011), a credit risk portfolio is the deterioration in loan portfolio quality that results in loan losses and high delinquency management costs. Empirical studies on credit risk management and loan portfolio quality have revealed that credit risk is the most critical and expensive risk associated with MFIs (Mangram, 2013; Crabb & Keller 2006).

Credit risk is also a potential threat to MFI solvency (Kayode et al., 2015). Ledgerwood (2000) recommends that to manage credit risk effectively, MFIs should put in place systematic distribution of loans according to well-established credit policies and procedures provided. Further, Ahmed & Malik (2015) identified that credit risk management involves loan appraisals to minimize loan losses. However, reviewed literature has either ignored or overlooked how critical measures of credit risk management like risk identification, risk assessment/analysis and risk monitoring influence loan portfolio quality.

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ignored or overlooked how critical measures of credit risk management like risk identification, risk assessment/analysis and risk monitoring influence loan portfolio quality.

1.1.3 Loan Size

According to Shariff (2013) microfinance loan size offered to borrowers influences the repayment performance of microfinance institutions. The loan sizes to borrowers can be designed into small, medium or big loan sizes. Most microfinance institutions design small and medium loan products to cater demands of low-income and poor household customers. Efficient loan size that fit capability of borrowers to repay reduces portfolio risk of the gross loan portfolios Crabb & Keller, (2006); Pischke (1991). On the other hand, Nyamsogoro (2010) observed that, profitability of microfinance institution lending business is associated with larger average loan sizes offered to their clients.

However, Cull et al. (2007) argued that, microfinance institutions that provide smaller loans do accumulate higher profits in transacting with their clients. It is also an indication that, such small loan products are demanded by their clients. On the other hand, Feroze, et al., (2011); Berhanu, (2005), had contradictory observation who argued that, loan size of microfinance institutions does not influence microfinance financial performance. Using data from 632 MFIs from 37 countries of the Sub-Saharan African region and employing a GMM technique, Chikalipah (2018) found that credit risk is positively related to loan sizes. The credit risk is more likely to increase with an increase in the loan sizes.

1.1.4. Firm Size

An increase in the supply of loans is likely to be accompanied by a reduction in the interest rate and lower minimum credit standards. However, lowering credit standards increases loan defaults by borrowers, and excessive lending (Klein, 2013). The bank's size is used to test the 'too big to fail hypothesis,' which assumes that large banks take excessive risks by increasing their leverage too much, extending loans to lower-quality borrowers, and therefore having more NPL (Beccalli, Anolli, & Borello, 2014). Conversely, low efficiency shows bad management, where the manager is reluctant to follow the set standard practices of loan monitoring and controlling. Besides, large banks have more incentives to engage in income diversification.

1.1.5. Microfinance Institutions

The banking sector plays a pivotal role in financial intermediation by channelling funds from lenders to borrowers, thus it is an essential pillar for economic growth and financial stability (Balcilar, Gupta, Lee, & Olasehinde-Williams, 2018). Specifically, studies show that the sector influences entrepreneurial activities (Toms, Wilson, & Wright, 2019), resource allocation (Dwyer, 2018), poverty alleviation (Honohan, 2004; Abdin, 2016), education (Sun & Yannelis, 2016) and agriculture (Bustos, Garber, & Ponticelli, 2016). Moreover, monetary policies are transmitted through the financial sector, making banks among the economy's highly regulated entities (Valla, Saes-Escorbiac, & Tiesset, 2006). Therefore, an efficient banking sector is essential for the smooth functioning of the economy.

Nevertheless, the banking sector continues to grapple with a myriad of performance impediments such as mounting nonperforming assets, deregulation and financial liberalisation, the outburst of financial technologies and stiff competition from non-banking entities, which have distorted the lending business as shown by the deteriorating quality of loan portfolio (Laryea, Ntow-Gyamfi, & Alu, 2016). Empirical studies across developing and developed economies have also revealed that bank failure is usually preceded by high nonperforming loans (Zhang, Cai, Dickinson, & Kutan, 2016). Moreover, Jolevska and Andovski (2015) noted

that the quality of loan portfolio influences future banks' strategies and ultimately their financial performance.

1.2. Problem Statement

A 2019 report by Moody documented that the soaring NPLs in Kenya are reflection of poor financial sector health in the country. The report indicated that, in March 2019, Kenya's NPL ratio to total loans stood at 12.4 percent up from 12.9 percent in April 2019. This makes Kenya the fourth country in Africa with high NPL to loans ratio the others being Angola at 24 percent, the Democratic Republic of Congo at 21 percent, and Ghana at 19 percent in the same month. The same situation makes Kenya be the country with the worst nonperforming loan performance in East Africa (Moody, 2019).

According to the 2018 CBK's commercial bank credit officers' report, NPLs in Kenya have been on a rising trend and it keeps on growing. The reported NPL in 2018 was 63.8 billion, from 44.66 billion in 2017, representing a 30.3 percent increase. The constant growth of NPLs is a matter of great concern. Hence knowing the soundness of commercial banking is of great importance to promote financial stability in Kenya (CBK, 2018). The ratios of NPLs to the sum of loans in Kenya are quite high compared to its African counterparts, which stood at 34 percent as of June 2018. The ratio was lower in other economies such as Nigeria at 10 percent, Zambia at 8 percent, and South Africa at 3 percent (Kenya Bankers Association, 2018).

A study in Kenya found that the key causes of non-performing loans in the banking industry are three pronged. These are factors specific to internal organization, factors relating to the macroeconomic policies, which ultimately determine how the economy works, and finally those factors relating to the actual management of business (Mucheke 2001). According to Ngungu and Abdul (2020), GDP growth rate, high rate of unemployment, high rate of real interest rate, and loan losses reserve ratio significantly led to the occurrence of NPLs. A more recent study of the Kenyan banking industry by Kigamwa and Mutwiri (2023) found that the relationship between real interest rate and NPLs was positive; the relationship between inflation and NPLs was negative; and the relationship between exchange rate and NPLs was both a positive and negative relationship. High and rising NPL ratios can severely limit the ability of the banking sector to provide new credit and support the economy. Using both country- and bank-level data, a recent study (IMF, 2021) has provided new evidence that NPLs in Sub-Saharan Africa hamper credit and growth.

Regardless of the success of Microfinance institutions through widespread support from financial institutions, governments, and private individuals; and the progress toward understanding MFIs risks on financial sustainability (Abara et al., 2017; Yegen, 2014), the biggest challenge facing microfinance institutions is poor understanding of borrowers' default risk. This is related to increased uncertainty because of a lack of historical information from the clients (Knewtson & Qi, 2019). The relationship between MFIs and poor clients results in monitoring costs, especially in determining the creditworthiness of the borrowers and the amount to be advanced (Kassim & Rahman, 2008). Therefore, MFIs without clear cut policies may decline to provide loans to micro-borrowers. Researchers have centered their studies on developed economies with more advanced banking sector infrastructure and legal frameworks. Therefore, this study will seek to fill the gap by investigating the influence of Microcredit risk strategies on the loan portfolio quality of MFIs in developing economies using Kenya as a case study.

2.0 Literature Review

2.1 Theoretical Review

2.1.1 Institutional Theory

This study explores the influence of portfolio quality on MFIs sustainability. According to (Meyer & Rowan, 1977) seminar paper “Institutionalized organizations: Formal Structure as Myth and Ceremony”, institutions are confronted by pressure arising from areas other than task environments. Having well-established strategies, structures, framework, and practice in various professions, policies, and programs.

These managers are constrained by socially derived norms and expectations that assume the organizational environment and the desired conduct. Champions of financial sustainability suggest that MFI should be able to cover costs with revenue collected (Brau & Woller, 2004). The theory offers insight into the continuity and conformity of microfinance institution practices through an appreciation of organizational-level processes (Delbridge & Edwards, 2007). Apart from MFIs improving their structures, they should also align them to the institutional framework to achieve legitimacy, resources, stability, and better survival chances in the sector. Therefore, MFIs must devise a lending mechanism that locks out questionable micro entrepreneurs to avert the risk of default, which could accelerate the deterioration rate of the portfolios hence contributing to the erosion of their sustainability (Schreiner, 2003).

2.1.2 Theory of Information Asymmetry

A study by Pagano and Jappelli (1993) indicates that “sharing of information leads to the reduction of adverse selection by improving banking sources of information regarding to the applicants of Credit.” The theory of asymmetric information states ‘that it could be hard to differentiate between the good borrowers from the bad borrowers’ (Auronen, 2003) in Richard (2011). This may lead to problems of adverse selection and moral hazards. This was associated with the information asymmetry that each bank had on its customers (Central Bank of Kenya, 2015).

This theory will clarify how customer’s credit information influences the performance of banks as measured by profitability. Most Microfinance institutions offer microcredit to their loan applicants whom share their information which is used to determine if the applicant is worth the credit, this information might be true or not true but it’s the work of the institution to establish if it’s true.

2.1.3 The Theory of Delegated Monitoring

For small enterprises and medium enterprises, this is crucial to the role of banks in the system of making payments (Matthews & Thompson, 2008). Matthews and Thompson (2008), posits that the major element in the theory of delegated monitoring is an analysis of costs and benefits of monitoring. This implies that delegating monitoring will lead to new information challenges whereby parties involved in monitoring a agents have information only known to them. This eventually leads to delegation costs which should be lower compared to minimum cost if not monitored and costs that are directly monitored.

The Central Bank of Kenya annual report (2008) defines it as “Credit information sharing is a process where banks and other credit providers submit information about their borrowers to a credit reference bureau so that it can be shared with other credit providers”. CIS is an advantage to banks because they can know if the borrowers can repay loans advanced to them commonly referred to as credit reporting. This idea of sharing information about the credit reports of

customers was conceived after many banks were indebted because of the failure of customers to repay the loan they got from the banks.

This theory is very critical in the literature of banks' existence in the economy. In a broad definition, when a bank closely monitors a borrower, the bank will have to collect information before and after the loan is disbursed to the borrower. It includes a thorough screening Collateral provided, valuating if it is equivalent to the loan application ensuring that borrower is creditworthy and making sure the borrower understands and abides by the terms and conditions of the lender contract. In this process, banks usually have privileged information since they have the client's records and can see the transactions in the account.

2.1.4 Modern Portfolio Theory

The Modern Portfolio Theory (MPT) is attributed to Harry Markowitz (1952). The MPT is one of the most important and powerful economic theories in finance and investment. This theory is particularly widely used in portfolio and risk management. The MPT refers to an investment theory that allows investors to select and build assets portfolios that maximize expected return for a given level of risk.

The theory assumes that investors are risk averse. For a given level of expected return, they always prefer the least risky portfolio. The selection and construction of investment portfolios are then based on maximizing the expected return and simultaneously minimizing the investment risk (Fabozzi et al., 2002). The MPT argues that rational investors diversify their portfolios to optimize them (Pfaff, 2012).

This can be achieved by choosing to use different amounts of investments that are carefully selected while taking into account how the investment is likely to be affected by the other elements of the portfolio rather than choosing individual securities (Francis & Kim, 2013). Each security has its risks, which are higher than that of a portfolio containing diverse securities (Pfaff, 2012). The risk component of MPT can be measured, using various mathematical formulations, and reduced through the concept of diversification which aims to suitably select a weighted collection of investment assets that together show lower risk factors than investment in any individual asset.

2.2 Empirical Review

Mugwe (2013) study the relationship between firm-specific factors and financial performance of commercial banks in Kenya. The study determines and evaluate the relationship between bank-specific factors; capital adequacy, asset quality, liquidity and management efficiency on the financial performance of Commercial Banks in Kenya. The findings show that bank specific factors considered are significantly associated with financial performance as indicated by the positive mean values and their respective standard deviations. (Hitchcock, 2014; Necesito, 2016). The finding shows that the association of loan portfolio quality of Philippine MFIs with the inflation rate is positive and significant, indicating that the inflation is a factor that strongly affects the portfolio at risk of MFIs (Necesito, 2016). The study indicated that inflation has a strongly negative and significant relationship with all of dependent variables. This suggests that as the inflation rises, the credit risk might decrease. The study does not provide any explanations to support this output.

Kaaya and Pastory (2013) tangled credit risk management with loan performance. He used return on equity (ROE), return on assets (ROA), and capital adequacy ratio (CAR) as measures for credit risk management/loan performance in Tanzania. The study concluded that there is a negative and significant relationship established between Non-performing Loan ratios with

the more attention to handling credit risk, such as adherence to the bank’s credit policy, and manage their NPLs to the minimum threshold settled by BOT.

From the Literature reviewed, it is evidence that the microcredit risk management strategies affect the loan portfolio quality including the commercial banks and microfinance institutions. It is however, evident that most of the studies have focused mainly on the Economic growth, unemployment, interest rate, inflation, institutional policies as the main microcredit risks that affect the loan portfolio quality. Never the less there has been records of high levels of non-performing, the study will be filling the gap that has be left out to establish the effects of microcredit risks management strategies on the loan portfolio quality.

2.3 Conceptual Framework

The conceptual framework demonstrates a correlation, between dependent and independent variables. Microcredit risk strategies management is an independent variable that is controlling the loan portfolio quality and its aggregate of risks strategies and loan portfolio quality is a dependent variable.

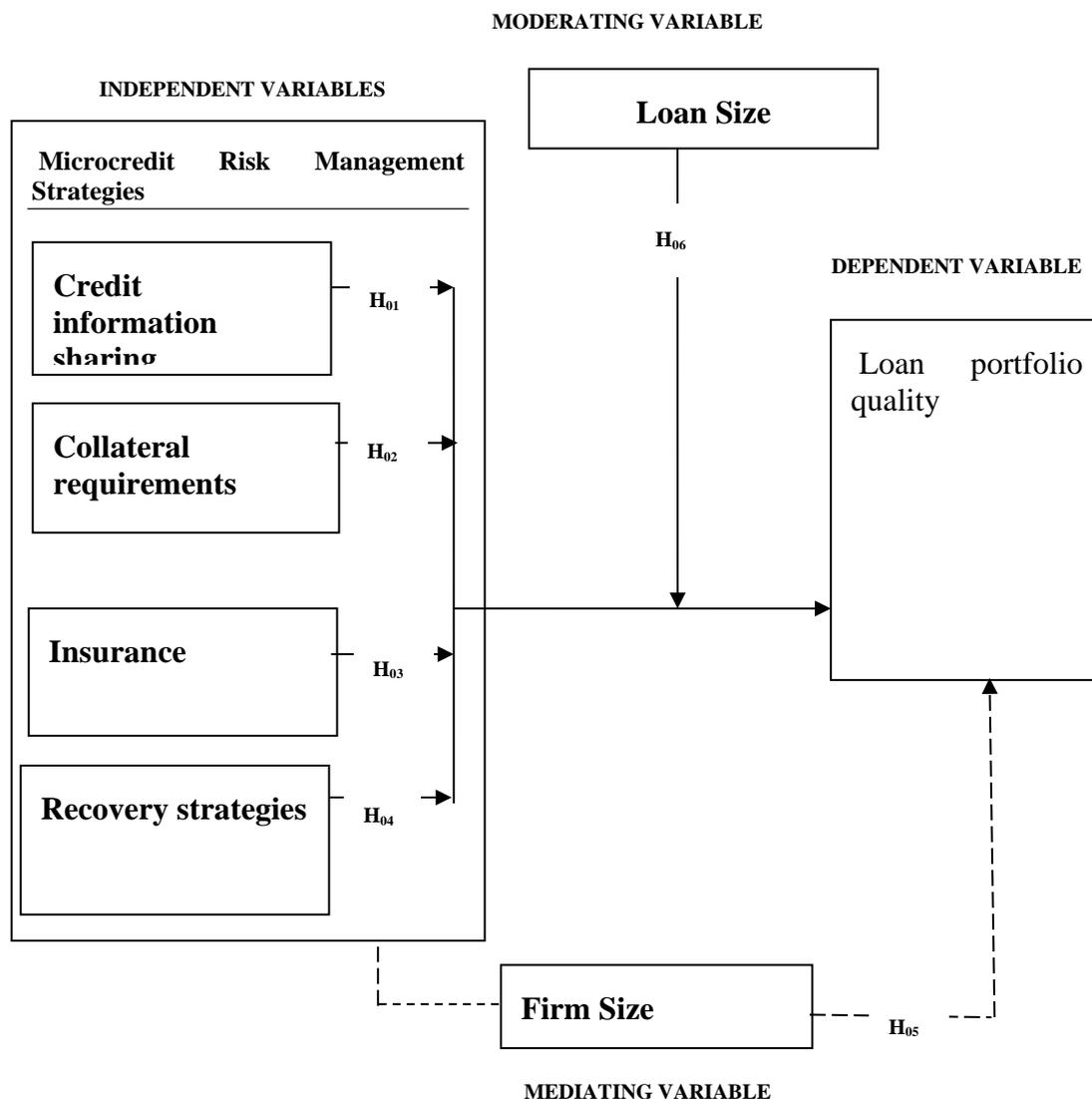


Figure 1: Conceptual Framework

3.0 Methodology

The study adopted a desktop methodology. Desk research refers to secondary data that can be collected without fieldwork. Its data sources include public libraries, websites, reports, surveys, journals, newspapers, magazines, books, podcasts, videos, and other sources. Therefore, published studies, reports, and statistics were the source of the information for this study. This secondary data was easily accessed through online journals and libraries.

4.0 Results and Discussion

Mugwe (2013), (Onuko, Muganda, & Musiega, 2015). Nikolov and Popovska (2016), Sanju, Basuki, Rahmat (2020), Bhattarai (2017), Kozaric and Zunic (2016), Ebba (2016), Mohammad and Alshawneh1 (2016), Tahir et al., (2014), Dayong et al. (2016), they all focused on Commercial Banks and non-focused on the effects of Microcredit risks strategies management. i.e microcredit information, collateral, insurance and credit recovery. No study reviewed Micro financial institutions.

The study findings recognized the effects of the microcredit risk strategies on the loan portfolio quality causing high rates of loan default. The studies that have been done on the determinants of collateral and the loan portfolio quality and not the microcredit risk strategies management and loan portfolio quality on microfinances institutions in Kenya, hence there is a need to address the gap. Therefore, the research intends to fill the knowledge gap by investigating the effects of Microcredit risk strategies management on the loan portfolio quality of microcredit institutions in Kenya.

5.0 Conclusions and Recommendations

The study will be beneficial to the academicians and researchers they will be furnished with relevant information regarding microcredit risk management and loan portfolio quality of the Microfinance institutions in Kenya. This will also contribute to the general body of the banking sector and form a basis for further research.

The study findings of this study will assist the regulators of the Bank Sector formulating stringent policies to tame the rising cases of non-performing loans in Kenya evaluating how successive their approach has identified the gaps and making adjustments.

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