EFFECT OF MANAGEMENT PRACTICES ON NON-PERFORMING LOANS IN DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVES IN KENYA-MANAGEMENT PERSPECTIVE

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Effect of Management Practices on Non-Performing Loans in Deposit Taking Savings and Credit Cooperatives in Kenya-Management Perspective

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DECLARATION

This thesis is my original work and has not been presented for a degree in any university.

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This thesis has been submitted for examination with our approval as University Supervisors.

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JKUAT, Kenya

DEDICATION

To my parent who send me to school. I am also grateful to my family for their love, patience, encouragement and support though out the PhD course period.

ACKOWLEDGEMENT

In any kind of a given Research Project works, it requires synergy and team work for it to be successful and realize its full objectives. Therefore, I wish to take this earnest opportune time to thank my able supervisors Prof. Willy Muturi and Dr. Oluoch Oluoch for their endless support, professional guidance and encouragement though out this Research Project.

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LIST OF ABBREVIATIONSAND ACRONYMS

ANOVA	Analysis of Variance
AVE	Average Variance Extracted
BLUE	Best Least Unbiased Estimator
BOSA	Back Office Services Activity
CBK	Central Bank of Kenya
CCOL	Credit Concentration and Other Exposure Limits Regulations
CMP	Credit Monitoring Practices
DTS	Deposit Taking Savings
EAD	Exposure at Default
EFA	Exploratory Factor Analysis
EU	European Union
FC	Financial Cooperatives
FDIC	Federal Deposit Insurance Corporation
FOSA	Front Office Service Activity
GCC	Gulf Cooperation Council countries
GDP	Gross Domestic Product
ICA	International Co-operative Alliance
ICT	Information Communication Technology
IMF	International Monetary Firm
KMO	Kaiser-Meyer-Olkin
KPMG	Klynveld Peat Marwick Goerdeler
KUSCCO	Kenya Union of Savings Credit Co-operative Unions
LGP	Loan Guarantee Practices
LRP	Loan Restructuring Practices
MFIs	Microfinance Institutions
MFL	Microfinance House Limited MFI Micro Finance
MRAR	Management of Risk Assets Regulations
NACOSTI	National Council for Research, Science and Technology
NPLs	Non-Performing Loans
OLS	Ordinary Least Squares method

PD	Probability Default
ROA	Return on Assets
RR	Recovery Rate
SACCO	Saving and Credit Co-operative Society
SASRA	SACCO Society Regulatory Authority
SMEs	Small and Medium Sized Enterprises
SSA	Sub-Saharan Africa
SSA	SACCO Society Act
SSE	Small Scale Enterprises
UNDP	United Nations Development Programme
USA	United States of America
VIF	Variance Inflation Factor

DEFINITION OF KEY TERMS

Arrears	Refers to a late payment, partial payment or a skipped payment that is supposed to be made at the end of a given period after missing out on the required payments (Kwazera, 2016).
Loan Restructuring	It refers to a process that an entity facing cash flow problems and financial distress to reduce and renegotiate the terms of the debt (Kithunzi, 2015).
Loan Guarantee Policy	This is a process by which the Sacco offering the debt is able to have an collateral in case of a default by the loanee (Mwithiga, 2017).
Loan Recovery Agency	This is a third party on a principal and agent relationship, whereby an agent is employed to collect on behalf of the principal who is in this case is the Sacco (Kalani, 2004)
Credit Monitoring practice	Credit monitoring practice is defined as practices used by the SACCOs to monitor the behaviour of the loanee in paying his/her loan and ability to honour monthly payments for the loan advanced to them (Godfrey, 2015).
Cooperative:	An autonomous association of persons united voluntarily to meet their common economic and social needs (Huseyin, 2016).
Credit terms	These are the conditions that have to be met before the loan is approved (Song'e 2015).
Non-performing Loan:	Means any loan which the principal and/ or interest remains unpaid after the due date (Ferson, 2015).
Financial Practice:	This is the task of raising the funds needed by the SACCOs, allocation of the funds to the most productive uses, exercise of control over the way the

funds are utilized and the distribution of returns (Miriti, 2019).

Loan Delinquency: It is non-compliance with loan repayment contractual terms. It is simply failure to repay loans (loan recovery) as per the agreed terms (Steams, 2016).

ABSTRACT

Deposit Taking Sacco sector significantly contributes to financial industry, and further contributing the country's GDPN. Non-Performing Loans (NPLs) of these SACCOs is in constant rise inhabiting internal growth and affecting liquidity inaddtion, hindering smooth running of the operations of these institutions. Management practices is one of the avenues that can impact on the debt levels of a SACCO. This study sought to find out the effect of Management Practices measured by Restructuring, Guarantee Policies, Monitoring Practices and Loan Recovery on NPLs in deposit taking savings and credit cooperatives in Kenya. The Stakeholder Theory, the Shareholder Theory and Acceleration Theory forms the theories the study was anchored on. Descriptive analysis was employed to the study for efficiency purposes. A structured questionnaire aided in collecting data. Excel, SPSS and AMOS statistical tools aided in the various aspects of data analysis. Regression Analysis is the framework of the Hypothesis testing that was used in this study. Multiple regression results analyzed established that each of the four measures of Management Practices had positive significant effect on NPLs. Thus, SACCOs that are efficient in Restructuring, Monitoring, Recovery and Credit Guarantee realize positive NPL outcomes (reduced number and total amount). Furthermore, Moderated Multiple Regression analysis establish that SACCO Size has a significant enhancing effect on the relation between Management Practices and NPLs. The study thus concluded that loan restructuring, guarantee practices, credit monitoring and credit management practices are critical determinant of NPLs in SACCOs for both small and large SACCOs. Good levels of NPLs can be achieved to ensure that SACCOs' asset quality should not deteriorate. SACCOs to consistently improve their efficiency and effectiveness in restructuring NPLs, Monitoring Credit, strengthening Guarantee policies and Recovery. The aims of the DTs can therefore play significant catalyst of development when they truly achieve sustainable NPLs levels in these institutions.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financial institutions like SACCOs and main stream banks are most relevant in the economy world over. They operate by investing funds which have been deposited by members and interests earned when these funds are lend out to members and have earned interest, thereby, ensuring there is sufficient cashflow (Chavaz, & Rose, 2016). Individuals or financial institutions borrow from them. In order to advance loans or buy shares, they then use certain deposits and borrowed funds. These loans are provided by banks to undertakings, other financial institutions, individuals, and governments that need investment funds at cost; that is, interest rates. Credit risk is the probability of partially or entirely losing the unpaid loan due to credit events (default risk) and this is an internal determinant of bank efficiency, and it is a measure of the efficacy of an institution's lending management practices. Obuobi and Polio (2015) suggests that a bank's exposure to credit risk has a favorable relationship with the bank's likelihood to suffer a financial crisis.

Harrtman (2018) indicated that operational performance and profitability, organizations are looking for strategies to improve their operational performance and boost their profitability. As competition intensifies due to changes in the industry structure and the emergence of new technologies, organizations are determined to reduce their operational costs while enhance their profitability. Credit is one of the many factors that can be used by a firm to influence demand for its products. According to Horne and Wachowicz (2018), firms can only benefit from credit if the profitability generated from increased sales exceeds the added costs of receivables.

Any financial institution, the biggest risk in SACCOs is lending money and not getting it back. Credit risk is a particular concern for Sacco’s because most micro lending is unsecured (i.e., traditional collateral is not often used to secure microloans. The people covered are those who cannot avail credit from banks and such other financial institutions due to the lack of the ability to provide guarantee or security

against the money borrowed. Many SACCOs do not extend credit to these kinds of people due to the high default risk for repayment of interest and in some cases the principle amount itself. Therefore, these institutions required to design sound management practices that entails the identification of existing and potential risks inherent in lending activities (Churchill & Coster, 2017).

Timely identification of potential credit default is important as high default rates lead to decreased cash flows, lower liquidity levels and financial distress. In contrast, lower credit exposure means an optimal debtors' level with reduced chances of bad debts and therefore financial health. According to Van Horn (2015), in today's business environment risk management and improvement of cash flows are very challenging. With the rise in bankruptcy rates, the probability of incurring losses has risen. Economic pressures and business practices are forcing organizations to slow payments while on the other hand resources for credit management practices are reduced despite the higher expectations (Hertmann, 2018).

It is therefore necessary for credit professionals to search for opportunities to implement proven best practices. By upgrading your practices five common pitfalls can be avoided. Schaner (2017) summarizes these pitfalls as failure to recognize potential frauds, under-estimation of the contribution of current customers to bad debts, getting caught off guard by bankruptcies, failure to take full advantage of technology, and spending too much time and resources on credit evaluations that are not related to reduction of credit defaults. This study seeks to establish the effect of management practices on non-performing loan in deposit taking savings and credit cooperatives in Kenya.

1.1.1 Loan Management Practices

Loans management practice is an arrangement in which a lender gives money or property to a borrower and the borrower agrees to return the property or repay the money, usually along with interest, at some future point(s) in time. Usually, there is a predetermined time for repaying a loan, and generally, the lender has to bear the risk that the borrower may not repay a loan (Wainaina, 2017). Further, Myers and Brealey (2016) describe loan management practices as methods and strategies

adopted by a firm to ensure that they maintain an optimal level of credit and its effective management. It is an aspect of financial management involving credit analysis, credit rating, credit classification and credit reporting. Proper loan management practices will lower the capital that is locked with the debtors, and also reduces the possibility of getting into bad debts. According to Edwards (2017), unless an organization has built into its loans additional costs for late payment, or is successful in recovering those costs by way of interest charged, then any overdue account will affect his profit.

According to Pike and Neale (2019), a sound credit policy is the blueprint for how the company communicates with and treats its most valuable asset, the customers. Van Horn (2017) proposes that a credit policy creates a common set of goals for the organization and recognizes the credit and collection department as an important contributor to the organization's strategies. If the credit policy is correctly formulated, carried out and well understood at all levels of the financial institution, it allows management to maintain proper standards of the loans to avoid unnecessary risks and correctly assess the opportunities for business development. A key requirement for effective credit management practices is the ability to intelligently and efficiently manage customer credit lines. In order to minimize exposure to bad debt, over-reserving and bankruptcies, companies must have greater insight into customer financial strength, credit score history and changing payment patterns (Nelson, 2018). Credit management practice starts with the sale and does not stop until the full and final payment has been received. It is as important as part of the deal as closing the sale (Van Horn, 2017). In fact, a sale is technically not a sale until the money has been collected.

Loan management practices are considered as an integral component for the success of the banks. This is attributed to the fact that commitment to the loan management practices ensures long term survival of the SACCOs through shielding from default loans (Lalon, 2015). Poor loan management practices can have adverse negative effects resulting in reduced profitability and liquidity problems due to compressed profit margins from the rising NPLs hence bringing about the most challenging environment for financial institutions (Mwithiga 2017). The essence of loan

management practices by SACCOs is to help in the identification of potential ways related loans which include but not limited to loan restructuring, guarantee policy, loan monitoring practices and loan recovery agencies. In addition, the practices mentioned herein, it will help in gathering information required to monitor borrower relationships for changes in risks including determining the appropriate level of monitoring and identifying information required for both the lender and borrower Furthermore, it will help in evaluation of changes in credit management that require action including assessing internal and external factors and recognizing and evaluating warning signals. Moreover, loan delinquency management aims in assisting in selecting appropriate solutions to solve emerging credit problems by using strategies that optimizes the outcome for the institution while also assists in recognition of lending institutions that entail exposure to lender liability. Lastly, it will help in identification of the potential impact of bad loans to the institution (Sam, 2015).

Loan management practices help in efficient management and administration of the SACCO loan portfolio in order to ensure minimal non-repayment of loans by members, and equitable distribution of funds and to encourage liquidity planning (Kiragu, 2015). In order to achieve prudence and accepted best practice, loan management practices should always be guided by clearly spelt out policies, procedures, strategic plan, the co-operative act, the SACCO regulatory act rules and regulations (Kinyua, 2018). Basically, Savings and credit co-operative has three operational aspects namely; the savings, the credit and channeling external funds to members (Omino, 2019). The management committee of the SACCO is responsible for formulation, reviewing and amending the loan policies in the institutions of their jurisdiction. The supervisory committee is responsible for ensuring that the loan policy is adequately carried out and that it achieves the goals it was created (Pagano, 2016). The committee determines if the policy comply with by periodically reviewing a sample of loans granted and denied. The policy is expected to achieve the major goals which include to establish a fair loaning system, establish efficient credit administration and coherent reliable procedures to assist in proper recovery of loan funds, and finally to guide staff and board members on the loaning process (Zeller, 2016).

The management and credit personnel should have not only the favorable moral ethics, but also enough professional knowledge, skills and experience to solve problems to analyze and judge the strategic location and credit business correctly, and solve the existing problems suitably. And the most important principle is to transform the operation mechanism comprehensively, and the core is to construct healthy interest driven and long term effective risk management mechanism, and apply the ideas throughout all levels and all parts of operation management. Making provision stemmed from the credit transactions such as credit sales. Sales on any basis other than for cash make possible the subsequent failure to collect the account.

Studies have indicated that poor loan management influences negatively the profitability and operation efficiency of banks (George et al., 2018). Similar studies in Ghana by Aballey (2019) confirmed that huge bad loans portfolio for African Development Bank (ADB) in Ghana was largely caused by ineffective loan monitoring and poor credit selection and recommended that training, effective loan monitoring, effective collateral, establishment of agriculture infrastructural facilities and use of credit bureaus as strategies for reducing the bad loans and improving the quality of loan portfolio for ADB in Ghana. The findings of Baliwen (2016) disclosed that there is failure of bank management to establish sound lending policies and adequate credit administration procedure among Bank in Nigeria, as custodians of depositors' fund and therefore saw the need to exercise due care and prudence on their lending operations. The study further revealed that there is no significant relationship between effective loan management and the performance of banks.

1.1.2 Loan non-performance

Non-performing loans are accounts whose principal or interest remains unpaid 90 days or more after due date and are also referred to as defaulted loans (Kiyai, 2019). Similarly, Berger and De Kalani (2004) describe these types of loans as problem loans. This high level of NPLs continues to be an issue of major supervisory concern in Kenya. International Monetary Fund (2019) observed that a non- performing loan is any loan in which interest and principal payments are more than 90 days overdue; or more than 90 days' worth of interest has been refinanced**.** The SACCOs in the

give loans based on members' savings. The loans are guaranteed by other members of the SACCO and are supposed to be repaid in accordance with the SACCO's by-laws. Repayment or non-repayment for employed members depends on the members' salaries and the check-off system by the employers. For the non-employed members of the society, repayment is based on each member's commitment and loyalty to their SACCO.

A non-performing loan is one in which all agreed payments are not being made and are not expected to continue and the value of any assets backing up the loan does not remain adequate to cover the loan. It is the sum of borrowed money upon which the debtor has not made scheduled payments (Kroszner, 2015). A non-performing loan can either be in default or close to being in default. Once a loan is non-performing, the odds that it was repaid in full are considered to be substantially lower. In this case the financial firms no longer receive interest and/or installment payments as scheduled (Omino, 2019). Non-performing loans ratio is equal to value of non-performing loans divided by the total value of the loan portfolio including non-performing loans before the deduction of specific loan-loss provisions. Higher non-performing loans ratios means that an organization is not recovering the loans given out as expected (lipunga, 2015).

The essence of non-performing loan management practices is to help in the identification of potential ways related to non-performing loans which include but not limited to loan restructuring, guarantee policy, loan monitoring practices and loan recovery agencies. In addition, the practices mentioned herein, it will help in gathering information required to monitor borrower relationships for changes in risks including determining the appropriate level of monitoring and identifying information required for both the lender and borrower (lipunga, 2015). Furthermore, it will help in evaluation of changes in credit management that require action including assessing internal and external factors and recognizing and evaluating warning signals. Moreover, loan delinquency management aims in assisting in selecting appropriate solutions to solve emerging credit problems by using strategies that optimizes the outcome for the institution while also assists in recognition of

lending institutions that entail exposure to lender liability. Lastly, it will help in identification of the potential impact of bad loans to the institution (Sam, 2015).

A default is the failure to pay back a loan or occurs when a borrower has not met his or her legal obligations according to the debt contract (Matogoro, 2014). Default may occur if the debtor is either unwilling or unable to pay their debt. The above definition does not mean that the borrower had entirely stopped paying the loan and therefore been referred to collection or legal processes; or from an accounting perspective that the loan had been classified as bad or doubtful, or actually written off. Non-performing loan is also the inability of a borrower to fulfil his or her loan obligation as at when due (Merton, & Robert,2016). The non-performing loans are likely to cause challenges in the SACCO such as low profitability, low liquidity, low growth rate, poor competitiveness of the SACCO as well as rise of disputes with stakeholders.

In a high NPL condition, SACCOs increasingly tend to carry out internal consolidation to improve the asset quality rather than distributing credit. Further, the high level of non-performing loans requires SACCOs to raise provision for loan loss that decreases the banks' revenue and reduces the funds for new lending. The cutback of loans impairs the corporate sector as they have difficulties in expanding their working capital, blocking their chances of resuming normal operation or growing. Unavailability of credit to finance firm's working capitals and investments might trigger the second round business failure which in turn exacerbates the quality of bank loans, resulting in a re-emerging of banking or financial failure. In a worse scenario, it triggers an endless vicious liquidity spiral. As a result of poor economic condition and the depressed economic growth, the rise in the level of non-performing loans makes SACCOs more reluctant to provide additional credits resulting to insufficient capital. The production sector is further weakened, resulting in decreases in aggregate demand again, even worse still, borrowers' condition creates more Non-performing loans (Kroszner, 2016).The eradication of non-performing loans is therefore a necessary condition to improve the economic status and performance of financial institutions.

1.1.3 Loan Management Practices and loan non-performance.

Effective loan management practices should be performed in a systematic way and in accordance with established policies and procedures. To be able to prudently value loans and to determine appropriate loan provisions, it is particularly important that companies have a system in place to reliably classify loans on the basis of credit risk to facilitate repayment of loans by customers (Kagwa, 2016). Larger loans should be classified on the basis of a credit risk grading system. Other, smaller loans may be classified on the basis of either a credit risk grading system or payment delinquency status. Both accounting frameworks and Basel II recognize loan classification systems as tools in accurately assessing the full range of credit risk (Omino, 2015).

Loan management processes typically take into account a borrower's current financial condition and paying capacity, the current value and reliability of collateral and other borrower and facility specific characteristics that affect the prospects for collection of principal and interest (Kiyai, 2019). Financial institutions should put in place policies that require remedial actions be taken when policy tolerances are exceeded. These institutions should also document their validation process and results with regular reporting of the results to the appropriate levels of management. Additionally, the validation of internal credit risk assessment models should be subject to periodic review by qualified, independent individuals for example internal and external auditors (Jared & Charles, 2017).

After the financial crisis of the late 2000s, non-performing loans (NPLs) have become an increasing matter of concern for financial institutions like banks in many European countries (Lindblad & Riley, 2015). The non-performing loans are problems world over, they indicate the both the state of economy performance and the lending conditions of the institutions. According to scholars (Ono, Aoki, Nishioka, Shintani, & Yasui, 2018). The problems associated with NPLs are: NPLs tie up bank capital without providing return, there is reduced bank profitability and threatening business models and they erode a bank's liquidity (Jackson, 2018). EU's Non Performing Loans Ratio stood at 3.7 % in Dec 2017, compared with the ratio of 4.2 % in the previous year (Sasra, 2017). Literature shows that USA's Citibank

group alone is experiencing a financial crisis and has written of more than 39 billion dollars in losses (Wainaina, 2017).

In recent decades, a large number of countries have experienced financial distress of varying degrees of severity, and some have suffered repeated bouts of distress. Boyd and Gertler (2014) explained that in the US during the great depression, the banking industry faced competition from open markets sources of credit and nonbank intermediation. Due to this high failure rate, there was a rise in the number of banks in financial distress. By the end of 1992, the Federal Deposit Insurance Corporation (FDIC) listed 863 banks with combined assets of $464 billion as problem institutions (FDIC 1993). Gaithi (2015) explained that in the early 1980s, the governments of several Latin American countries, including Chile and Mexico, felt compelled to make up for losses in the banking system by buying substandard loans from the banks for more than their true worth-to preserve its solvency. Likewise, many African countries also had to restructure and recapitalize their banking systems as well.

Most banks in Asia continent including Thailand, Indonesia, Malaysia and Japan experienced also high Non-Performing Loans (NPLs) and significant increase in credit risk during financial and banking crises which resulted in the closing down of several banks in Indonesia and Thailand (Rajha, 2016). The negative effect of credit risk and non-performing loans on banks performance and the economy in general has made the issue of NPLs a global one and of great importance in the last decades (Ahmad & Nee, 2017). The problem of non-performing loans is not a preserve of Europe and other developed economies. African banking crisis is at the hearth of the same situation.

The steady rise in credit risks in sub-Saharan Africa (SSA), which began in 2015, is now threatening to slow down loans availability in the region. Data shows that at the close of the year 2015, eight per cent of commercial banks' outstanding loans in SSA were classified as non-performing, on average terms (Hernández, & Kriesi, 2016). The situation worsened as the figure rose to 10 per cent in 2016 and in 2017 it was a huge 13 per cent (Meyer, 2015). The steep upward glide has been driven by three of

the region's banking sector heavyweights, namely Nigeria, Angola and Ghana (Florence, 2017).

The economy of the East African region has recorded record increase in the NPLs. In Uganda, though NPLs declined to 6.2 per cent in June 2017, a surge in default rates seems to reflect big shocks experienced by borrowers and lenders since last year, in spite of bullish growth forecasts pegged to certain sectors. Uganda has recorded a success story brought by the regulatory seizure of Crane Bank back in October 2016, which accounted for half of the sector's non-performing loans (Otchere, Senbet, & Simbanegavi, 2017).

Ever since the transformation of the financial sector in the 1990s, the banking sector in Tanzania has fully grown. As at December 2016, the banking sector controlled over 20 trillion Tanzania shillings of financial assets, representing 70 percent of total financial assets, with loans and advances representing 50 percent of total banking financial assets (Abbas & Li., 2017). To ensure that commercial banks maintain good quality assets and operate within prudential requirements, banks have increased on-site and offsite monitoring and passed Credit Reference Bureaux Regulations of 2012 and Management of Risk Assets Regulations of 2014 (MRAR), and Credit Concentration and Other Exposure Limits Regulations of 2014 (CCOL).

However, despite all these efforts by banks, the quality of assets measured by non-performing loans (NPL) has been deteriorating over the years. Gross non-performing loans have increased steadily from 4.4 percent in 2005 to 9.6 percent in 2016. The ratio of non-performing loans rose to 10.8 per cent at the end of April from 8.2 per cent a year ago (Abbas & Li., 2017). In August last year (2020), audit firm KPMG raised the alarm noting that Tanzania's NPLs were way above the country benchmark of 5 per cent (Amin, Sanusi, Kusairi, & Abdallah, 2021).

In Kenya, Non-performing loans remain to be the highest detrimental factor to development of the financial sector (Doriana, 2015). World Bank (2018) report indicated that there was low performance of financial sector in Kenya having a relatively high non-performing loan rates than the globally set standards at 14.92%

and five years average of 11.07%. Kenya's Non Performing Loans Ratio stood at 8.9 % in Dec 2017, compared with the ratio of 8.8 % in the previous month (Hernández, & Kriesi, 2016). This is despite the fact that the Central bank of Kenya (CBK 2006) developed risk management guidelines for the purpose of providing minimum direction to banks on risk management and create a working framework befitting international best practices which require banks to have a fully independent credit risk management responsible for capital adjustment and provision for escalating non-performing loans.

Out of the nine Kenyan banks that have released their 2020 half-year results, eight have recorded a rise in non-performing loans, a key indication that businesses are struggling not only to stay afloat but also to meet their financing needs (Ndungo, Tobias, & Florence, 2017). The rise in non-performing loans (NPLs) in the financial sector has been blamed to delays by the national and county governments in paying businesses that trade with them. Most of the borrowers are new entrepreneurs who get loan finances from SACCOs because of their (SACCOs) flexibility and less stringent lending policies than banks (Schaner, 2017). This has not only damaged the confidence of investors and act as a contagious for financial malaise but it has driven away deserving loan borrowers out of the financial system (Kibet, & Sile, 2017; Dinçer, Yuksel, & Adalı, 2018). The foregoing as highlighted the background of the situation regarding the NPLs from the global, regional and local perspective in the financial sector. The next section features the SACCOs in Kenya.

1.1.5 Global Perspective of Management Practices and Non-Performing Loans

After the financial crisis of the late 2000s, non-performing loans (NPLs) have become an increasing matter of concern for financial institutions like banks in many European countries (Lindblad & Riley, 2015). The non-performing loans are problems world over, they indicate the both the state of economy performance and the lending conditions of the institutions. According to scholars (Ono, Aoki, Nishioka, Shintani, & Yasui, 2018; Akinlo & Emmanuel, 2019; Chavaz, & Rose, 2016). The problems associated with NPLs are: NPLs tie up bank capital without providing return, there is reduced bank profitability and threatening business models

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In recent decades, a large number of countries have experienced financial distress of varying degrees of severity, and some have suffered repeated bouts of distress. Boyd and Gertler (2014) explained that in the US during the great depression, the banking industry faced competition from open markets sources of credit and nonbank intermediation. Due to this high failure rate, there was a rise in the number of banks in financial distress. By the end of 1992, the Federal Deposit Insurance Corporation (FDIC) listed 863 banks with combined assets of $464 billion as problem institutions (FDIC 1993). Gaithi (2015)explained that in the early 1980s, the governments of several Latin American countries, including Chile and Mexico, felt compelled to make up for losses in the banking system by buying substandard loans from the banks for more than their true worth-to preserve its solvency. Likewise, many African countries also had to restructure and recapitalize their banking systems as well.

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1.1.6 Regional Perspective of Management Practices and Non-Performing Loans

The steady rise in credit risks in sub-Saharan Africa (SSA), which began in 2015, is now threatening to slow down loans availability in the region. Data shows that at the close of the year 2015, eight per cent of commercial banks' outstanding loans in SSA were classified as non-performing, on average terms (Hernández, & Kriesi, 2016). The situation worsened as the figure rose to 10 per cent in 2016 and in 2017 it was a huge 13 per cent (Meyer, 2015). The steep upward glide has been driven by three of the region's banking sector heavyweights, namely Nigeria, Angola and Ghana (Florence, 2017).

The economy of the East African region has recorded record increase in the NPLs. In Uganda, though NPLs declined to 6.2 per cent in June 2017, a surge in default rates seems to reflect big shocks experienced by borrowers and lenders since last year, in spite of bullish growth forecasts pegged to certain sectors. Uganda has recorded a success story brought by the regulatory seizure of Crane Bank back in October 2016, which accounted for half of the sector's non-performing loans (Otchere, Senbet, & Simbanegavi, 2017).

Ever since the transformation of the financial sector in the 1990s, the banking sector in Tanzania has fully grown. As at December 2016, the banking sector controlled over 20 trillion Tanzania shillings of financial assets, representing 70 percent of total financial assets, with loans and advances representing 50 percent of total banking financial assets (Abbas & Li., 2017). To ensure that commercial banks maintain good quality assets and operate within prudential requirements, banks have increased on-site and offsite monitoring and passed Credit Reference Bureaux Regulations of 2012 and Management of Risk Assets Regulations of 2014 (MRAR), and Credit Concentration and Other Exposure Limits Regulations of 2014 (CCOL).

However, despite all these efforts by banks, the quality of assets measured by non-performing loans (NPL) has been deteriorating over the years. Gross non-performing loans have increased steadily from 4.4 percent in 2005 to 9.6 percent in 2016. The

ratio of non-performing loans rose to 10.8 per cent at the end of April from 8.2 per cent a year ago (Abbas & Li., 2017). In August last year (2020), audit firm KPMG raised the alarm noting that Tanzania's NPLs were way above the country benchmark of 5 per cent (Amin, Sanusi, Kusairi, & Abdallah, 2021).

1.1.7 Local Perspective of Management Practices and Non-Performing Loans

In Kenya, Non-performing loans remain to be the highest detrimental factor to development of the financial sector (Doriana, 2015). World Bank (2018) report indicated that there was low performance of financial sector in Kenya having a relatively high non-performing loan rates than the globally set standards at 14.92% and five years average of 11.07%. Kenya's Non Performing Loans Ratio stood at 8.9 % in Dec 2017, compared with the ratio of 8.8 % in the previous month (Hernández, & Kriesi, 2016). This is despite the fact that the Central bank of Kenya (CBK 2006) developed risk management guidelines for the purpose of providing minimum direction to banks on risk management and create a working framework befitting international best practices which require banks to have a fully independent credit risk management responsible for capital adjustment and provision for escalating non-performing loans.

Out of the nine Kenyan banks that have released their 2020 half-year results, eight have recorded a rise in non-performing loans, a key indication that businesses are struggling not only to stay afloat but also to meet their financing needs (Ndungo, Tobias, & Florence, 2017). The rise in non-performing loans (NPLs) in the financial sector has been blamed to delays by the national and county governments in paying businesses that trade with them. Most of the borrowers are new entrepreneurs who get loan finances from SACCOs because of their (SACCOs) flexibility and less stringent lending policies than banks (Schaner, 2017). This has not only damaged the confidence of investors and act as a contagious for financial malaise but it has driven away deserving loan borrowers out of the financial system (Kibet, & Sile, 2017; Dinçer, Yuksel, & Adalı, 2018). The foregoing as highlighted the background of the situation regarding the NPLs from the global, regional and local perspective in the financial sector. The next section features the SACCOs in Kenya.

The below figure represents the rate at which non-performing loans are on the rise as the Y- axis represents the percentile and X-axis represents the period of concern.

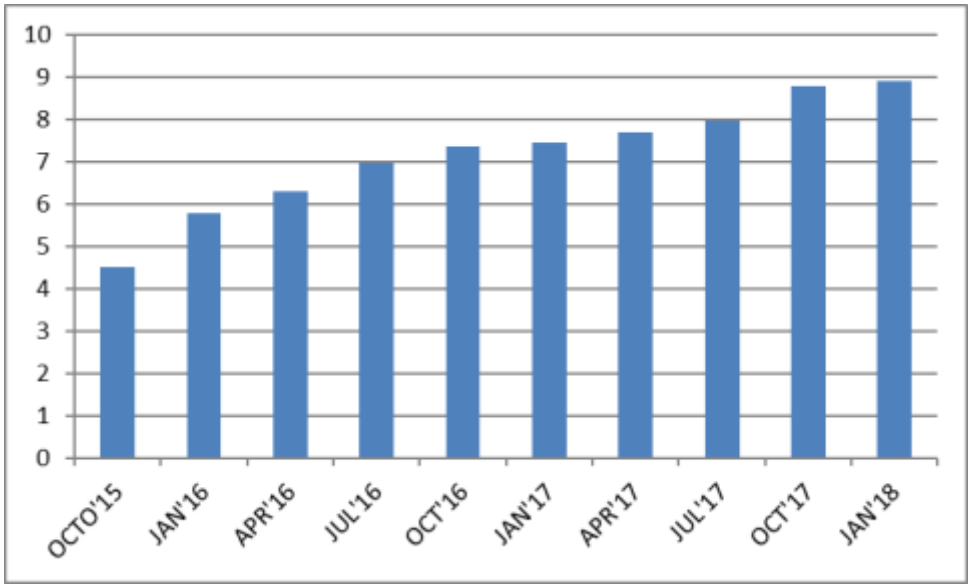

Figure 1. 1: Kenya's Non-Performing Loans Ratio from October 2015 to January 2018

An investigation into the relationship between non-performing loans and SACCO specific factors is necessary with a view of making supported recommendations that would arrest the situation and slow down the rise or eliminate them from the financial books altogether.

1.1.8 SACCOs in Kenya

A Savings and Credit Cooperative Society (SACCO) is a co-operative with the objective of pooling savings for members and hence make credit facilities available to them (UN-HABITAT, 2015). The SACCOs overall objective is to support general welfare and economic interests of the members. A Savings and Credit Cooperative Society (SACCO) can also be defined as a members owned financial co-operative whose principal objective is to mobilize investments from its member and give the members access to loans (provident and productive) on reasonable terms as a mode of enhancing the socio-economic status of the members. The members will in most

cases have a mutual bond. They work by investing funds by taking deposits or in the money markets by borrowing. Individuals or financial institutions borrow from them (Miriti, 2018). In order to advance loans or buy shares, they then use certain deposits and borrowed funds. These loans are provided by banks to undertakings, other financial institutions, individuals, and governments that need investment funds at cost; that is, interest rates.

In Kenya the cooperatives include both deposit taking and the non-deposit taking SACCO Societies. The non-deposit taking portion is made out of those SACCO Societies whose business is restricted to preparation of deposits (non-withdrawable) for reasons for loaning to individuals (Odhiambo, 2017). The deposits are non-withdrawable in that they might be utilized as insurances for advances just, and must be discounted upon the part's withdrawal. Then again, the deposit taking portion of the sub-area is made out of those SACCO Societies which attempt both withdrawable and non-withdrawable deposits (Kinyua, 2017). While the non-withdrawable deposits segment of the business might be utilized as guarantee and are not refundable except if on withdrawal from participation, the withdrawable deposits bit of the business can be gotten to by the individuals whenever (SASRA, 2017).

The government of Kenya established The SACCOs Societies Regulatory Authority (SASRA) under the Ministry of Cooperative Development and Marketing in an effort to regulate the SACCOs. SASRA reform SACCOs and ensures that there is confidence in the public towards the SACCOs sector and spurring Kenya’s economic growth through the mobilization of domestic savings (Ministry of Co-operatives and Marketing, 2018).According to the KGS (2019),for effective enforcement of the regulations, SASRA is granted specific powers in law to deal with SACCOs societies that fail to comply. This is imperative as compliance cannot be left at the discretion of the SACCOs. In addition to financial capacity, licensing is testimony that a SACCO’s has the institutional capacity, in terms of human, technology and business processes to comply with the terms and conditions of the license. Thus failure to comply cannot be condoned as it will encourage impunity (Kenya Gazette, 2016).

SASRA emphasizes that in accordance with vision 2030, the policy objective of establishing prudential regulation of deposit taking SACCOs societies is to enhance transparency and accountability in the SACCO subsector. SASRA recognizes that as a new law it is certain to bring challenges and impact on the SACCOs Societies in different ways and extent. It is the responsibility of the board of directors and the management to analyze their business reality against the operational regulations and prudential standards; and develop strategies through the business plans for consideration by the Authority as part of the licensing process (Musyoki, 2018).

Kenya's Sacco industry is among the biggest in Africa with 5.7 percent of total assets to GDP ratio, followed by Rwanda and Ethiopia, with 3.0 percent and 0.7 percent, respectively. Growth of the Saccos industry has leveraged on rapid adoption of technology and innovations in the provision of financial services and products coupled with the opening up of the common membership bond. In addition, enhanced legal and regulatory environment have helped Saccos industry to grow and be accessed by 28.4 percent of the adult population as at December 2019, the highest in Africa. The Sacco industry has continued to build and maintain strong capital adequacy levels with sufficient liquidity and earning capacity to withstand shocks and vulnerabilities. However, the industry continued to maintain high cost to income ratios. In addition, credit risk remains elevated with NPLs increasing from 5.2 percent in 2016 to 9.1 percent in June 2020. Agriculture and Micro and Small Enterprises (SMEs) sectors have been affected most by COVID-19 pandemic, making it difficult for members to service their loans. Saccos societies restructured loans totalling KSh 4.7 billion in 3 months to June 2020, reflecting the difficulties members were facing in loan repayment.

Kenya's SACCOs are governed by core principles and values; voluntary and transparent membership, democratic control of membership, members' economic involvement, autonomy and freedom, education, training and knowledge, cooperative cooperation and community concern (Wambui, 2017). All these principles are meant to focus on member core needs since co-operatives work for the sustainable development of communities through member friendly development initiatives. SACCOs get their strength from individuals (Berger, 2016). In any

chance that individuals are weak and wrong membership of weak management styles, at that point SACCOs can't be strong. SACCOs play a critical part in battling poverty through progression of credit to its individuals and formation of business opportunities among the citizens. Nonetheless, it is significant that the individuals progressed with loans from these SACCOs have encountered issues in reimbursing such loans. The management of such SACCOs needs to attempt intensive screening prior to propelling loans to individuals to capture the issue of credit misconduct (Kithinji, 2015).

Increasing the saving culture, investing activities and providing lending services are the main activities of SACCOs, which are the main source of income growth for SACCOs. The large proportion of SACCO's assets includes loans to members provided (Okundi, 2016). Unfortunately, some of these loans provided by the SACCOs are not working, so ultimately declared bad debts with adverse effects on the overall loan recovery performance of SACCO institutions play an important role in the provision of financial services to both rural and urban classes (Turyahebwa, 2017).Although Kenya has over 14 million co-operators, three quarters of the Kenyan population, nearly 30 million, is estimated to rely either directly or indirectly on the activities of SACCOs for a living (Kilonzi, 2017). In the fight against unemployment, especially among young people in Kenya, SACCOs have played a key role in directly employing over 500,000 people. SACCOs account for 80% of the total accumulated savings while Kenya’s sub-sector is the largest in Africa, accounting for 62, 65 and 63% of the continent’s savings, loan and assets respectively (Chege, 2015).

Both locally and globally, Kenya's SACCO sub-sector was believed to be a promising tale. Little or no effort has been made to make the cooperative movement a force to be reckoned with, particularly in the financial sector, where banks continue to make extraordinary profits. Banks paid interest rates of between 25 and 35 percent on loans only last year while SACCOs charged a quarter of that interest, but there was no major interbank-SACCO change (SASRA 2017). The demand for loans in SACCOs would be expected to rise exponentially, but on the contrary, banks were still unshaken in terms of savings mobilization and credit advancement to their

respective customers (Owino, 2016). Kiragu (2019) observed that SACCOs kept on performing poorly. The survival of any organization depends on how quickly the revenue is collected and the retention of the customers for continuity (Omara, 2017). Credit risk is defined as the potential that a borrower or counterparty failed to meet his obligations in accordance with agreed terms. According to Aragon and Ferson (2017), credit risk is the most expensive risk in financial institutions and its effect is more significant as compared to other risks since it directly threatens the solvency of financial institutions. While financial institutions have faced difficulties for a number of reasons over the years, the major problems facing financial institutions appear to be directly related to weak credit standards for creditors and counterparties, inadequate risk management of the portfolio and lack of sensitivity to changes in economic or other circumstances that lead to a deterioration in the credit status of financial institutions (Basel, 2016).

The foregoing literature has set the background of the problem and the situation regarding the SACCOs in Kenya. The literature has shown that the NPLs is a global problem affecting both large and small economies (Jared, 2017& Kithunzi, 2018). Further the indication is that the problem is on the rise especially in Kenya (Kiragu, 2018). Literature also indicate that the problem cannot be ignored given the significant role the financial institutions especially SACCOs play in the economy.

1.2 Statement of Problem

The subject of Loan Performance has received significant attention from scholars in the various disciplines of business and economics. Loans remain the key assets for deposit taking SACCOs comprising 73.42% of the total asset base. This calls for consideration of the quality of the loan portfolio of deposit taking SACCOs, with adequate safeguards and managerial practices to provide for any non-performing portfolios. The total loan portfolio at risk, measured as a ratio of the non-performing loans to gross loans increased to 5.23% from 5.12% registered in 2015. This was driven mainly by the increase on the non-performing loans from Kshs 13.21 Billion in 2015 to Kshs 15. 57 Billion in 2016 (SASRA, 2017). According to Ndung'u (2015) SACCOs are hampered by poor loan management.

The foregoing literature underscores that the presence of NPL in the books of an institution is a problem. Non-performing loan is a risk management issue in any financial lending institution. Poor credit risk management practices lead to rising non-performing loans which compresses profit margins, of commercial banks hence bringing about more challenging environment for banks. In this regard, banks and SACCOs have put in place management practices, among other duties, to control the rise in the NPLs in their financial books. Indeed, after the financial crisis of the late 2000, the central bank put up stringent regulations in place to ensure that the financial institutions, like deposit taking SACCOs have sound financial risk management in place.

Whilst there is this progress, the reality on the ground is that the NPL are on a constant increase in the recent years as depicted by central Bank of Kenya results in figure2. According to the Ministry of Trade and Industry, the overall ratio of non-performing loans in Sacco's is currently high well above the industry regulatory requirement of five per cent. The presence of non-performing loans in Sacco's financial books has caused challenges in the SACCOs. The challenges include low profitability, low liquidity, low growth rate, poor competitiveness of the SACCO as well as rise of disputes with stakeholders. (Zhan, Cai Dickinson & Kutan, 2016, Munyiri 2016).

Thabo and Gichira (2018), noted that SACCO societies have problems generating wealth due to poor financial stewardship and undercapitalization of co-operative enterprises. Munyiri (2016), says that such challenges hinder the achievement of the said objectives and even lead to decline in growth of SACCOs Loan portfolios. Savings and credit organizations in Kenya are facing an imminent collapse due to high appetite and default by members that coupled with low deposits by members. Moreover, there is less oversight regulation by the authorities and lack of proper management practices in order to recover such loans advanced to members (SASRA, 2017).

According to Mambo (2017), carried out a research on effect of non-performing loans on the financial performance of deposit taking microfinance institutions in

Kenya. The study concluded that NPLs were a problem to the government, the banking industry and that non-performing loans affect the financial performance among the deposit taking microfinance, however due to the study population he had sampled the study did not comprehensively address the relationship between non-performing loans to financial performance of the deposit taking financial institutions.

From the above literature, it is clear that loan non-performance has become a social importance and despite the loan management practices put in place by SASRA, SACCO non-performing loans are still witnessed. The above mentioned SASRA reports and study reviewed, conclusively noted that NPL is a problem hence this study seeks to root the effectiveness of existing control mechanisms employed by SACCOs to arrest the issue of non-performing loans in SACCOs in Kenya.

1.3 Objectives of the Study

The broad objective of this study is to determine the effect of management practices on Non-performing loans (NPLs) of deposit taking savings and credit cooperatives in Kenya. To achieve this general objective, five objectives were formulated;

1. To assess the effect of loan restructuring practices on loan nonperformance among deposit taking SACCOs in Kenya.
2. To examine the effect of guarantee practices on loan nonperformance among deposit taking SACCOs in Kenya.
3. To examine the influence of credit monitoring practices on loan nonperformance among deposit taking SACCOs in Kenya.
4. To examine the effect of loan recovery practices on loan nonperformance among deposit taking SACCOs in Kenya.
5. To determine moderating effect of SACCOs size on the effect of management practices on loan nonperformance among deposit taking SACCOs in Kenya.

1.4 Research Hypothesis

A hypothesis is a logical conjectured relationship between two or more variables expressed in form of testable statements. In this study, five hypotheses were proposed.

H_O1: Loan restructuring practices does not affect loan nonperformance among deposit taking SACCOs in Kenya.

H_O2: Guarantee practices have no significantly effect on loan nonperformance among deposit taking SACCOs in Kenya.

H_O3: Credit monitoring practices have no significant effect on loan nonperformance among deposit taking SACCOs in Kenya.

H_O4: Loan recovery practices do not have significance effect on loan nonperformance among deposit taking SACCOs in Kenya.

H_O5: SACCO size has no significance moderating effect on the effect of management practices on NPL among deposit taking SACCOs in Kenya.

1.5 Scope of the study

This study was limited to the management practices and loan recovery performance of non-performing loans in deposit taking SACCOs in Kenya. In terms of geographical scope, the study focused on all 166 deposit taking SACCOs registered by SASRA regulatory Authority all over Kenya as published in the authority's website. This enabled the study to come up with comprehensive findings and recommendations expected to give practical solution to the current problem of NPL in the SACCOs. Though there are many factors that may impact on NPLs portfolio, the current study only investigates loan restructuring practices, loan guarantee practices, credit monitoring loan recovery practices as management practice tools that enables SACCO address the problem of NPL.

The study attempted to establish the influence of the moderating role of size of a SACCO on the influence of management practices in SACCOs. The most recent data used for the study, that is, the 2015, 2016 and 2017 to enable the study have the most current empirical findings on the state of managerial practices in the SACCOs in Kenya. Primary data was limited to only currently loan managers serving in SACCOs in Kenya as they are the best placed and conversant with the management practices and NPL trends in the SACCOs.

1.6 Significance of the Study

The study informs a number of stakeholders on matters on management practices of non-performing loan in SACCOs in Kenya. One such important significant contribution is in further research in academia. In this area, further studies will provide more information regarding loan delinquency management practices in savings and credit cooperative societies will be available. The findings stimulate other researchers to venture into loan delinquency management practices studies to strengthen the findings critical in controlling the rising challenges of NPL in the economy. This also contributes to the general body of knowledge and form a basis for further research.

The SACCOs, the management, and directors of various registered SACCOs, the study provides an insight into the various approaches towards loan delinquency management practices. Knowledge of contemporary loan delinquency management practices enables them identify plan, control, and effectively manage loan delinquency advanced by SACCOs to enhance success.

To the Government findings for research can be used to assist in policy formulation regarding taxation, and other regulatory requirements of SACCOs in the country. The policy maker is likely knowing how well to incorporate the sector effectively to ensure its full participation.

The study findings propose some proprietary financial practice to the SACCOs. It is noted that especially the low-income group benefits from this knowledge without having to pay royalty fees. Finally, to SACCO regulators, the findings of this study

are likely to assist the regulator to formulate stringent policies to tame the rising cases of non-performing loans. The study also provides information on the vision 2030 as regards SACCOs and the role of SACCO in ensuring achievement of this vision's objectives.

1.7 Limitation of Study

Limitations are constraints or drawbacks of the study that the researcher has little or no control over. The data was collected from managers working in SACCOs who may be reluctant to participate in the study since some felt as if they were being investigated. However, the researcher assured the respondents of the confidentiality of the information provided. In addition, the respondents were not required to write their names in the questionnaires so as to ensure anonymity and hence no information provided could be attributed to specific individuals. Further, the researcher presented an introductory letter obtained from the University and a research permit from National Commission for Science, Technology and Innovation to show that the study was to be used for academic purposes only.

In this study, primary data was used and was collected by use of questionnaires. However, questionnaires depend on the respondents' ability to recall. In addition, the information collected through questionnaires cannot be considered to be very much reliable or valid. This is because they are subject to misinterpretation, ambiguity and misunderstanding of questions. However, a pilot test was conducted to examine and improve the validity and reliability of the research instrument.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of literature relevant to this study. Savings and credit Co-operative Societies offer financial services to individual members hence need to have sound proper management practices of non-performing loans. The chapter highlighted the global, regional and local literature on NPLs management practices in SACCOs. Accordingly, past studies explored to shed light on this very important topic and identify the gaps in knowledge that this study seeks to fill.

2.2 Theoretical Framework

According to Miriti (2019), the theoretical framework helps to make logical sense of relationship, forming a link between the independent variables and the dependent variable. The study is anchored on three theories; the shareholder theory, the stakeholder theory and the financial accelerator theory. The proponents, origin, and assumptions/limitations of the theories are discussed. Also discussed is the relevancy of these theories.

2.2.1 Shareholder (Agency) Theory

The theory of agency was propounded and published by Jensen and Meckling (1976), who were discussing the issues of the agent and principle in earlier years. It states that there will always be partial goal among parties, efficiency is inseparable from effectiveness, and information will always be asymmetric information between principal and agent. The theory has been applied to various disciplines including accounting, economics, politics, finance, marketing, and sociology (Odhiambo, 2017). This theory prescribes that employees must employ a good governance structure since they were held accountable in their tasks and responsibilities. The power of agency theory is reduced if and when the principal decides to invest in new business. An agent is motivated and monitored to create wealth, portraying the agent as potentially deceitful (Mitnick 2015).

This theory is applicable to this study because in case of proper collection management system and sound loan recovery procedures instituted by the agent then repossession of the unpaid loans can ease hence reducing the non-performing loans thereby by reducing agency costs that affects the overall loan performance in the SACCOs, this mutual existence will enhance the relationship between the principal and the shareholder. A loan recovery agency enhances collections of the unpaid loans by member. The motivation to use the agency theory in the current study is derived from the fact that other studies on management practices and NPL were anchored on the agency theory (Epure & Lafuente, 2017; Ahmad & Ariff, 2017; Saba et al., 2017; Ekanayake & Azeez, 2015).The limitation of this theory is that its power is reduced if and when the principal decides to invest in new business. An agent is motivated and monitored to create wealth, portraying the agent as potentially deceitful. (Mitnick, 2015).

2.2.2 The Stakeholder Theory

Researchers have attributed the fame of stakeholder theory and literature in management domain to the book, "Strategic Management: Stakeholder Management Approach" by Edward Freeman in 1984 (Yang, 2010; Freeman & Mc Vea, 2011). Stakeholder Theory attempts to explain how organisation take into account the views of a wider range of interested parties known as stakeholders (Minyu, 2016). The role of stakeholder theory is seen to extend past the formulation of strategy to the establishment of performance goals (Phillips, Freeman, & Wicks, 2003). Maintaining close relationships and possible alliances with key stakeholders, a company can expect long-term cooperation that will lead to mutual benefits and therefore expect better performance of such a company in the future (Noland & Phillips, 2015).

Stakeholder theory suggests that shareholders are merely one of the stakeholders in the organizations. According to the stakeholder apart from the shareholders, there are several other agents such as guarantors who are affected by the actions and decisions taken by Sacco's management in case of default. Stakeholders are defining as parties that have an interest in an enterprise or projects Stakeholder theory asserts that SACCOs management have a social responsibility to protect all stakeholders hence

the same should be applied to guarantors. It is a theory of organizational management and business ethics that addresses morals and values in managing an organization (Jensen, 2017). Indeed, stakeholder theory is central to the debate on corporate responsibility and ownership, and the role of organizations in society. The social perspective needs to be balanced with measurement. Clearly, customers with negative satisfaction are detrimental to shareholders. At the other extreme, passing all the profit to customers will also be detrimental to shareholders.

Stakeholder theory has its limitation, example; it diverts attention from creating business success to concentrating on who shares its fruits. And now the dilemma in stakeholder theory is how do corporations recognize and acknowledge their stakeholder's interests, and develop strategies for appropriate "socially conscious" actions in the marketplace - while retaining a clear vision and a focused purpose of say minimizing NPL. Again what is performance/success is another dilemma - Success must be related to purpose. Once it said that an organization is successful, it could be according to the company's viewpoint, our own or some combination. The implication of stakeholder theory is that society, rather than the company, can determine what constitutes success, to the possible frustration of corporate efforts of say reducing NPL. So the implication to the mangers is that they should find that delicate balance between stakeholder interests and the organization interests. The Stakeholder Theory links to this study to the independent variable guarantor policy practice as all the stakeholders must be considered for loan recovery performance to take effect.

2.2.3 The Financial Accelerator Theory

The financial accelerator theory was developed by Gertle and Gertler (1999) and it indicates how economic shocks can have adverse effects on operations of small scale business which in turn affect the borrowing activities of the financial institutions. The theory also notes interplay between member’s net worth and the external finance, this situation arises due to asymmetric information between lenders and borrowers. Economic agents net worth is defined as the sum of assets plus collateral value of non-assets less outstanding obligations and the external finance premium is

defined as the difference between the cost of funds raised externally and opportunity costs internal to the firm (Bernanke & Gilchrist, 1999).

The theory argues that the less the amount of owner's wealth the borrower contributes to project, the more his interests will diverge from the interests of the supplier of the external funds (Gocejna, 2016). Borrowers are more eager to undertake riskier projects as the riskier the project is the higher the return. From the borrower's riskier projects are preferred as they have more return. From the lenders, these projects are unfavorable since they bear all, or most of, the costs in the case of low project returns. The theory moreover indicates that due to economic shocks, the borrowers may not have the ability to borrow and are likely to avoid repayment of their loans (Carroll & Buchholtz, 2017).

Hence this theory is relevant to this study in that managers of SACCOs should put in place mechanisms such as loan restructuring practices to encourage flexible plans, to reduce the non-performing loans in SACCOs.

2.2.4 Asymmetric Information Theory

The theory was developed by Akerlof, Spence and Stiglitz, (1970). Asymmetric information states that in certain situations, where some agent in same trade possesses information while other agents involved in the same trade do not. Asymmetric information refers to situations, where one of the members has more information than the other while other agents involved in the same does not possess the same information. Information asymmetry arises when the borrower has much better information about his financial state than the lender. According to Kipyego (2017), it may be difficult to distinguish between bad and good borrowers. It is therefore difficult for the lender to significantly know whether the borrower will default leading to non-performing loans. The lender may try to overcome this problem by carrying out screening of the borrower by looking ta the past records such as past credit history and evidence of income/cash flow. However, this only informs the lender of limited information.

According to Okundi (2015), if member of SACCOs borrowers could provide true and comprehensive information regarding their financial status to the lenders at the time of seeking credit, then SACCOs could be at a better position of making informed credit decisions thereby reducing the credit risks associated with such a borrower. When credit risk is reduced, level of non-performing loans is reduced hence a good portfolio quality for SACCOs.

From the foregoing arguments, the theory is relevant in this study since it inferred credit monitoring practice due to inability of SACCO Management to monitor the performance of loans in SACCOs relevant information on credit applicants leading to the possibility of increase in non-performing loans. This would in turn lead to deterioration in loan recover performance.

The theory has some limitations because in some circumstances, asymmetric information may have near fraudulent consequences, such as adverse selection, which describes a phenomenon where a SACCO encounters the probability of extreme loss due to a risk that was not divulged at the time of a lending. The existence of information asymmetry has shown that financial institutions find themselves in financial crisis due to defaults resulted by inadequate and inaccurate credit information available. Due to information asymmetry, lenders in most cases make wrong decisions on provision of credits (Gaithi, 2015).

2.3 Conceptual Framework

A conceptual framework is a type of model that employs the use of drawing or diagrams to explain the interrelationship between variables, especially independent and dependent variables (Orodho, 2014). The diagrammatic representation of conceptual framework shows how the variables are related. To achieve this objective a pictorial illustration is drawn depicting both the relationship of independent variables and dependent variables.

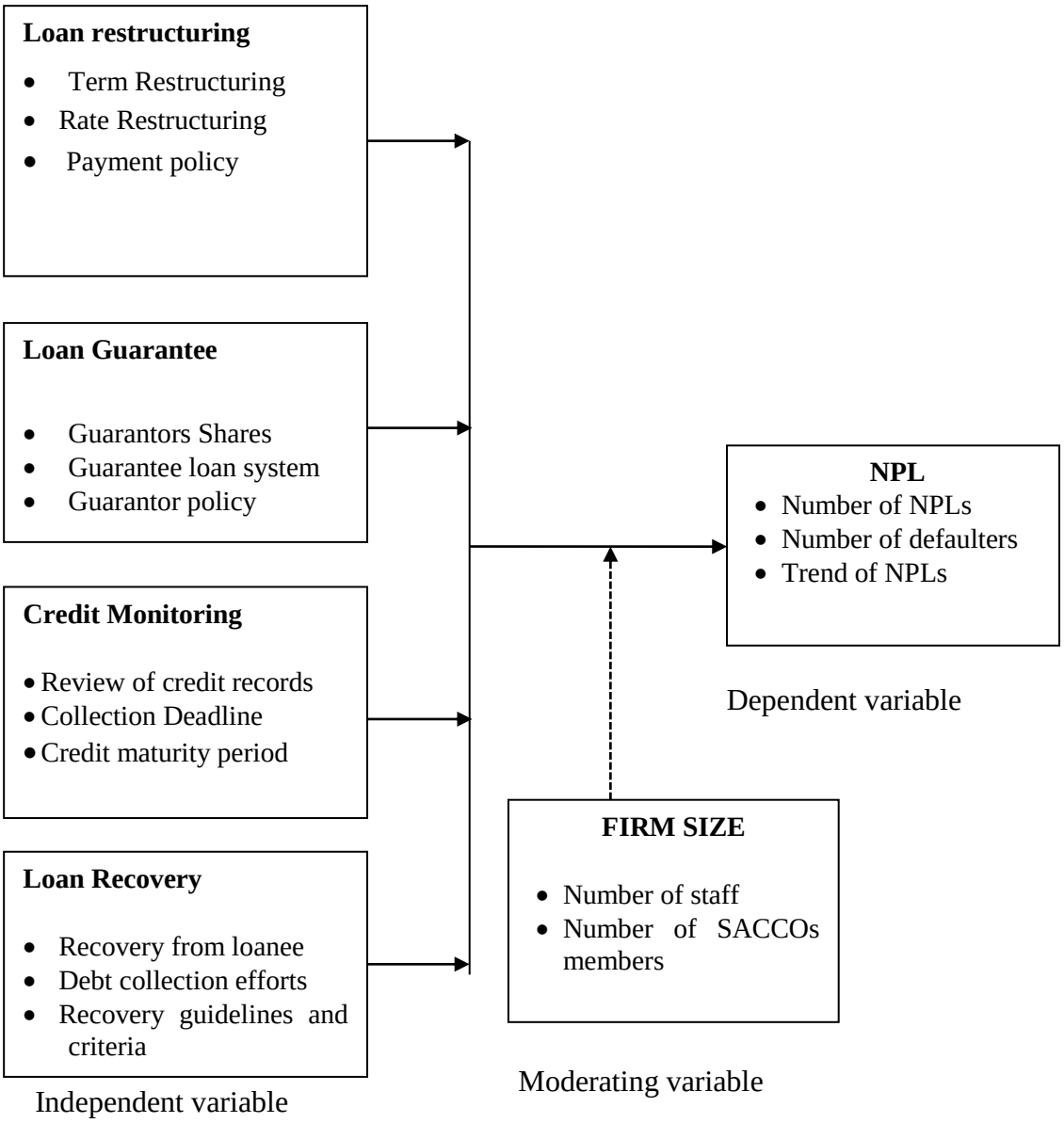

Figure 2.1: Conceptual Framework

2.4 Review of Study Variables

The next section reviews the key study variables in the conceptual framework to show an overview of the study. The overriding aim of the review is to provide an overview of previous research on a topic that critically evaluates, classifies, and

compares what has already been published regarding management practice variables and NPL. In the review, an attempt is made to synthesize the interplay of each study variables and NPLs. The work of various scholars and findings are presented

2.4.1 Loan Restructuring Practice

According to Gill et al. (2016), problem of non-performing loan does not necessarily mean all the situation cannot be salvaged, hence the defaulter can be engaged and be brought on board and discuss flexible ways to start making payments. One of the ways a Sacco can do this, is by has extending credit period of the loan. Loan restructuring is a process that allows SACCOs to relook at the terms of the loan and coming up with flexible ways to salvage the situation at hand, or renegotiate its debts to improve or redeposit liquidity so that it can continue its operations (Kithunz, 2015). Loan restructuring can take a form of replacement of old debt by new debt when not under financial distress is called refinancing (Kipngetich, 2015). Out-of-court legal restructurings, also known as workouts, are increasingly becoming a global reality. Loan restructuring is a process used by SACCOs to avoid non-performing loans on existing debt. The process is carried out by extending the repayment period and reducing the interest rates on the loans (Ferson, 2015). Creditors are made to understand that restructuring a SACCO's debt is in their best interest and also it is in the interest of the activities of SACCOs.

Sam (2015), stated that in handling problem loans SACCOs there are two broad choices: ask for guarantors to pay up the loan or use the shares of the borrower to offset the loan, or alternatively declare it as bad debt. The SACCOs choice was influenced by factors such as impact on the SACCOs reputation if it enforces collection, borrower's honesty and attitude towards debt, borrowers financial strength and ability to meet obligations over time, the value of the borrower to the SACCOs, the costs involved in collecting and rehabilitating the borrower and the return on each option. Further, Joetta (2017), stated that SACCOs should devise a workout plan only if the workout option presents a positive net present value. The immediate concern for every workout plan is to stem the hemorrhaging of cash flow through cost reduction, asset sales and revenue generation.

Nyasaka (2017) studied the relationship between credit risk management practices and related factors and non-performing loans at KCB Group. The study aimed at examining how Credit Risk Management practices prevalence of non-performing loans at KCB Group, The study adopted a descriptive research method. he used a sample of 100 credit managers in KCB head office and branches in Kenya through non-Probability sampling technique. He used regression analysis of the data and found that constant restructuring had lowering effect of NPLs

2.4.2 Loan Guarantee Practice

In any SACCO set up before the borrower is advanced a loan facility it is the policy of every member must have two guarantors who should be members of such Sacco (Lipunga, 2016). Financial institutions are assured by third parties to receive their repayments in the event of delinquency. This helps the cash-flow of the financial institution to consistently flow as per their loan investment returns. Loan portfolio rotation will not be slowed down. It in turn gives the institution the confidence to grant loans knowingly since there is a guarantee that the lending programme would not lose credibility (Song'e, 2015).

Guarantee Policy established by any SACCO, ensures that borrowers must "self-select". Thus, groups are formed by members of the community themselves, not by any outside the SACCO membership. This is because they are drawn from trusted members and are more willing to help each other out during the inevitable times of stress (Mwithiga, 2017). The policy is used to do away with the need to demand physical collateral and thus the cooperatives savings and credit schemes are formed on this premise. Membership rules may seem too strict but it is essential for the SACCOs success. It is noted that the group acts as a self-policing mechanism to ensure on-time repayment (Mambo, 2019). The concept of joint liability depends on members' sense of trust and collective responsibility. Typically, these members are formed around shared characteristics and needs such as economic interests, shared production and marketing needs, common residential or production location or shared ethnic background (Simanowitz, 2017). However, this liability needs to be questioned. With the non-traditional cooperative savings and credit schemes, trust,

solidarity and mutual support are required not only to obtain loans secured by group liability, but also to sustain the additional services as insurance that are normally provided.

2.4.3 Credit Monitoring Practices

According Mambo (2019), defines Credit monitoring practices is fundamental process employed by financial institutions to alert them of any changes in the credit that has been advanced to members. This practice assists the credit managers to confirm accuracy of any changes in the running loans to avoid any chances of non-performing loans. The Credit monitoring practice provides for timely information and such information analyzed by the credit officers to make appropriate information.

However, from review of some studies it is noted that credit monitoring is not a sure way to certainly monitor credit repayment shortfalls by members. In order to ensure effective credit monitoring, SACCOs need to critically examine the internal controls in place and evaluate their effectiveness to curb any form of fraud that may be brought by collusion between members of SACCOs that have received debt and the credit managers. Every Sacco should employ such tools such as monthly control indicating the amount outstanding, Sacco's inspection reports and risk-based audit reports (Kargi, 2019).

According to Diwan and Rodick (2016), suggested that high increases in rates of non-performing loans can trigger increase of uncertainty regarding the liquidity position of the financial institutions and therefore tend to limit their access liquidity for day to day operations. The non-performing loans are major to cause insolvency among financial institutions and a times it can lead to total closure of such institutions

2.4.4 Loan Recovery practices

According to Huseyin, (2016) loan recovery agency practices are techniques employed by a business to recover funds that are overdue, the debt collector engaged

by the financial collets the funds on behave and earns a fee for the services rendered. A times the agent might decide to buy all together the debt at discount depending on the best suites the agent and where the agent will earn more premium (Doriana, 2018). The agents employed are known to be aggressive and use of persistent methods in their methods to recover what is due. Failure for the member to own up to pay up, the credit agent might decide to sue the members or report such a member to be listed in the log sheet of credit bureau The aspect of loan management is default assessment which measures the loan default probability. It should be noted that employing services of credit agencies for loan recovery is a very critical factor in financial sustainability and growth of the SACCOs where failure to recover loans has proved difficult (Hannah, 2017).

Some institutions are more intent on disbursing credit than on doing the necessary careful preparation which is vital process to deter or minimize cases of non-performing loans, equally establishing a robust recovery strategy can have great effect in reduces cases of non-performing loans. According to Van Horn (2015), study of co-operative failures in Limpopo province indicated that poor management, strict debt collectors, conflict among members (due mainly to poor service delivery), and lack of funds were important contributory factors raise to Non-performing loans. Weak internal systems, inadequate capital, deficient support systems such as external monitoring and evaluation, and lack of a supportive policy environment have also contributed to co-operative failures (Mishkin et al., 2015). Hannah (2017), noted that an owner-directors too often make decisions on issuance of loans based on internal politics rather than on sound economics. These participants believed that, on occasion, co-operative directors may be motivated to make decisions that benefit the individual at the expense of the co-operative. This insight may help explain why governance issues are exaggerated at co-operatives relative to corporations (Holstrom, 2017). Much of the volume of rural credit is provided by the informal credit market, each lender providing loans to a relatively small number of borrowers with whom he is typically connected through linkages or other markets or political kinship or other ties from which he has a high profitability of collecting the loans.

2.4.5 Size of the SACCO

According to Chaplin, (2017) the size of the Sacco can affect Loan recovery performance mechanisms in many ways, the more the Sacco is big the greater the consequence in case of raise in weak non-performing management practices. This is the same analogy that big company enjoy economies of scale unlike small companies (Turyahebwa, 2017). A smaller Sacco can experience high impact when economic shocks or failure by members paying up loans unlike Big SACCOs with huge capital base and has muscle of liquidity. Large firms enjoy economies of scale and are less venerable than small SACCOs.

Further, small firms may have less relative operating power unlike big SACCOs. In competing arena, it's simply easy for the big SACCOs to penetrate the market and command more share than the small SACCOs. Previous studies on models of SACCOs bankruptcy for the large SACCOs in terms of Assets have indicated that larger SACCOs are more solvent than the smaller ones even if the numerical values of their financial ratios are the same (Beaver, 2017). This implies that the probability of failure is more likely to strike a smaller company in recessionary times. Empirical evidence supports this view (Mitchell, 2019).

Hussain et al., (2020) investigated the moderating role of firm size and interest rate in capital structure of the firms over six years (2013–2018) for 29 listed Pakistani enterprises operating in the sugar market. Using a static panel analysis and dynamic panel analysis on linear and nonlinear regression methods, the study reported a significant moderation effect of firm size on capital structure, which is one important management function and debt ratio of the company.

Muigai, and Muriithi (2017) studied the moderating effect of firm size on the relationship between capital structure and financial distress of non-financial companies listed in Kenya. Firm size was measured using total assets data from 40 listed non-financial firms between year 2006 and 2015 was used and panel regression model for fixed and Hausman test results. The findings also established that firm size has a significant moderating effect on the relationship between capital structure and financial distress of non-financial firms. Therefore, this study hypothesize that the

size of a SACCO has a moderating effect on the loan quality. A number of researches conducted around the world to investigate the factors influencing non-performing loans (NPLs) using different approaches. However, studies explicitly studying the moderating effect of SACCO size on the management practice-NPL relation in are scanty, and yet, big financial institutions differ in how they leverage bad debts different from small firms. In this regard, the study is set to fill the gap

2.5 Empirical Review

A literature review is a summary of research that has been conducted in the past on a certain subject and in this study the previous studies on NPLs are have been reviewed. The study covers the effect of loan restructuring practices, guarantee practice, credit monitoring practices, loan recovery practices, and firm size on organizational performance. Previous studies from the global, regional and local perspectives conducted in the last ten years were also reviewed.

2.5.1 Global Studies on Management Practices and loan Nonperformance

Merton, and Robert (2016) assessed the impact of bank's specific risk characteristics, and the overall banking environment on the performance of 43 commercial banks operating in six of the Gulf Cooperation Council (GCC) countries. Using fixed effect regression analysis, results showed that credit risk, liquidity risk and capital risk are the major factors that affect bank performance when profitability is measured by return on assets while the only risk that affects profitability when measured by return on equity is liquidity risk.

Karabulut and Bilgin (2020) carried out a study with the purpose of examining the impact of the unlimited deposit insurance on Non-Performing Loans (NPLs) and market discipline. They argued that deposit insurance program plays a crucial role in achieving financial stability. Governments in many advanced and developing economies established deposit insurance schemes for reducing the risk of systemic failure of banks. The report shows that deposit insurance has a beneficial effect of reducing the probability of a bank run. However, deposit insurance systems have their own set of problems. Deposit insurance systems create moral hazard incentives

that encourage banks to take excessive risk. In conclusion, the study shows that unlimited deposit insurance caused a remarkable increase at Non-Performing Loans (NPLs). What this means is that deposit insurance institutions established by monetary authorities must re-examine the current policy of blanket guarantee of deposits in the banking sector.

Stiglitz and Weis (2018) observed that small and medium scale firms with opportunities to invest in positive net present value projects may be blocked from doing so because of adverse selection and moral hazard problems. Adverse selection problems arise when potential providers of external finance cannot readily verify whether the firms have access to quality projects. Moral hazard problems are associated with the possibility of SMEs diverting funds made available to them to fund alternative projects or develop the propensity to take excessive risks due to some pervasive incentive structure in the system.

A research study conducted by Beck (2019) found that financing the small and medium Enterprises in Africa is considered risky and as a result they are charged highly on loans. An average of 1.97% of the loan value for small firms and 1.79% for medium sized firms are generally twice as high in developing countries in terms of fee payment. Small and medium Enterprises loans in the Africa appear riskier than those in developed countries. This may be due to the high interest rates observed in Africa, thus the share of non-performing loans among small firm loans in Africa averages 14.5 percent compared to 5.5 percent in developed countries. The non-performing loans ratio for medium sized firms is also higher in Africa (6.8%) than in other countries (5.1%).

Herr and Miyazaki (2019) addressed the non-performing loans problem and suggest securitization as a solution by transferring the distressed debt into securities and therefore achieve a positive balance sheet effect. As result, they also mention the necessity of the involvement of politicians who can foster the scheme of securitization on the private banks side and in the Ministry of Finance. The Japanese market of non-performing loans and the role of Governmental intervention are also subject of securitization, (Barseghyan, 2013). He identifies a link between the

Japanese government's reluctance to solve the bad loan problem and the economic slowdown. He opines that the Governments behaviour deteriorated the economic situation of Japan and affirms this hypothesis by a normative study. A more general comparative study on the structuring of asset management companies was undertaken (Klingebiel, 2020). She analyses and compares the use of asset management companies in the resolution of banking crisis in a cross country comparison and identifies success stories and drivers for different types of asset management companies of distressed debt.

Ogujiuba et al. (2020) established that access to credit market for small and medium scale businesses in Nigeria was limited to macroeconomic instability and uncertainty in the business environment which had forced banks to lend short to SMEs and overdrafts and short term loans are made available at very high interest rates. They also found out that they are also heavily collaterised. The implication of the study established is that many SMEs do not have access to bank loans.

2.5.2 Regional Studies on Management Practices and loan Nonperformance

In Africa, Simanowitz, (2017) investigated the determinants of non-performing loans in sub Saharan Africa using correlation and causality analysis. The analysis was based on data drawn from 16 African countries (7 CFA and 9 non-CFA). The sub-panel of CFA countries includes: (1) Benin, (2) Cameroon, (3) Chad, (4) Cote d'Ivoire, (5) Senegal and (7) Togo. The sub-panel of non-CFA countries includes: (8) Botswana, (9) Cape Verde, (10) Ethiopia, (11) Kenya, (12) Malawi, (13) Rwanda. (14) South Africa, (15) Swaziland and (16) Zimbabwe. The sample selection was dictated by the scope of the database and availability of financial information on these countries. The data are provided on an annual basis end-of-period, between 1993 and 2002, included. The minimum length of the panel covers a period of 3 years for the shortest series (Chad and Rwanda), and up to 10 years for the longest series, producing an unbalanced panel. The correlation and causality analysis focuses on a number of macroeconomic and microeconomic (banking sector) variables.

At the macroeconomic level, the study investigates the correlation between nonperforming loans and a subset of economic variables: per capita GDP, inflation, interest rates, changes in the real exchange rate, interest rate spread and broad money supply (M2). At the microeconomic level, it focuses on the association between Non-Performing Loans (NPLs) and banking-sector variables. The key banking variables include return on asset and equity, net interest margins and net income, and inter-bank loans. These variables were chosen in the light of theoretical considerations and subject to data availability. Non-performing Loans (NPLs) are adjusted for specific provisions (nonperforming loans as a proportion of loans loss provisions) to provide the basis for cross-country comparisons (Simanowitz, 2017).

In the correlation analysis, the results showed a negative association between real GDP per capita and non-performing loans expressed as a percentage of loans loss provision. This implies that falling per capita income is associated with rising scope of Nonperforming Loans (NPLs) to the extent that changes in per capita income is proxy for 19 changes in economic growth (Fofack, 2015). The negative association with non-performing loans may reflect the impact of cyclical output downturns on the banking sector; a result that is expected in the literature (Gonzalez-Hermosillo (1997)). The sign of the coefficient is consistent across state and private banks, though the magnitude of the correlation is stronger for state banks and financial institutions.

The effect of credit risk on the profitability of Nigerian banks was evaluated by Kenneth (2016). Financial ratios as a measure of bank performance and credit risk were obtained and analyzed using descriptive, correlation and regression techniques from the annual reports and accounts of several banks sampled. The findings showed that the management of credit risk has a major effect on Nigerian banks' profitability. It concluded that banks' profitability is inversely influenced by the levels of loans and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress. Epure's (2017) research analyzed bank performance in the Costa Rican banking sector in the presence of risk. The findings showed that performance improvements follow regulatory changes and that risk explains that bank and non-performing loan discrepancies have a negative effect on asset quality

and return, while the capital adequacy ratio has a positive impact on the net interest margin.

Reta (2018) carried out a study on determinants of loan repayment performance using on a Case Study in the Addis Credit and Saving Institution Addis Ababa, Ethiopia. The objective was to analyse and identify the factors that influence the loan repayment performance of the beneficiaries of Microfinance Institution. In order to achieve this objective, primary data was collected from 200 randomly selected clients (100 defaulters and 100 non- defaulters) by using structured interview. Moreover, secondary data were obtained from the record of the data analysis involved, descriptive statistics including mean, frequency and percentages to describe the socio-economic characteristics of the borrowers.

2.5.3 Local Studies on Management Practices and loan Nonperformance

In Kenya, Mwangi (2017) carried out a study on the effect of non-performing loans on the financial performance of commercial banks in Kenya. The researcher was aiming to establish how non-performing loans portfolio impacted on the financial profitability of commercial banks in Kenya. The study focused census of 46 commercial banks in Kenya for the period 2005 – 2016. Secondary data was used to capture relevant data obtained from the banks relating to two variables; Return on assets (ROA) which were the dependent variable and NPL which was the independent variable. The study adopted simple linear regression model of the form $y = \alpha + \beta x$ to establish the effect of non-performing loans on commercial banks financial performance. The results obtained from the study confirm that during the earlier years of the study, there was a high amount of NPLs resulting to a very low ROA. Later years however showed a different trend where ROA was higher and NPLs were low.

Kalani (2004), conducted a study to establish the causes of non-performing loans in commercial banks in Kenya, the study noted that some bank specific factors were related to risk management structures in place by banks were to blame for increasing NPLs. These bank factors include lax procedures used in credit assessment, non-

monitoring of NPLs, insider loans, lack of trained personnel and aggressive credit collection methods and weak internal controls in place.

Omino (2019), observed that repayment performance is significantly affected by borrower's characteristics, lenders characteristics and loan characteristics. Repayment problems can be in form of loan delinquency and default. Whatever the form however, the borrowers alone cannot be held responsible thus the management are also to blame. Wherever problems arise; it is important to examine the extent to which both borrowers and lenders comply with the loan contract as well as the nature and duties, responsibilities and obligations of both parties as reflected in the design of the credit programme rather than heaping blames only on the borrowers (Chaplin, 2017).

Odhiambo (2017), in his study on the relationship between working capital management and financial performance of deposit taking savings and credit co-operative societies licensed by SACCO societies regulatory authority in Nairobi county. Interest rate on members‟ deposits as a measure of financial performance was used as the dependent variable. The independent variable (working capital management) was measured by cash conversion cycle, current ratio, and debt ratio and turnover growth. The findings indicated that efficient working capital management leads to better financial performance of a SACCO, hence a positive relationship existed between efficient working capital management and financial performance variable.

Walsh (2015) in his research paper noted that default in loan repayment by SACCO members is brought about by commitments to other loans, diversion of salary, withholding of salary by an employer due to cash flow problems or employees having discipline issues, unwillingness to pay and unprofitability of the financed units. The image that the lender must receive loan repayments promptly and philosophy of non-tolerance of late loan repayments default imply that borrowers were committed to loan repayment. Potential borrowers are screened, and only those who are committed to loan repayment end up applying. According to Steams (2016), the manner in which borrowers are selected and the amount of loan given to each

successful borrower determine the magnitude of loan delinquency. Borrowers who are given loans they can repay without hardships hardly default in repayment. In any case, default in loan repayment is as a result of bad loans and not bad borrowers. A bad loan is one that the borrower repays with a lot of hardships.

Njiru (2018), carried out a study to determine how a Coffee Cooperative Societies in Embu district manage their credit risk, this was in respect of the systems procedures and controls which are put in place to ensure the efficient collection of credit to minimize the risk of non-payment. The study found out the coffee societies in Embu district use a quantitative method to evaluate the creditworthiness of their members. Additionally, all the coffee societies use the qualitative method only the borrower, and the amount of credit due. There is a common feeling that shared information between cooperative societies in Embu district will assist to a large extent in filtering out un-creditworthy members. This is so because most members were found to be becoming to more than one society within the same locality. The credit assessment method applied could influence the level of credit default and that education to members about the dangers of not paying in time could lead to lower level of default.

The result of correlation analysis between independent variables and dependent variable in Njiru (2018) showed ~~that~~ existence of a strong positive correlation between financial performance (ROA) and the asset utilization. A moderate positive correlation relationship exists between operational efficiency and size of SACCOs (assets size). Conversely, there is a significant negative correlation between financial performance (ROA) and the operational efficiency with correlation coefficients. The study also came out with a range of perspectives on the factors affecting the outreach and sustainability of SACCOs under study. Lack of awareness and poor saving culture, weak organizational arrangement and governance, policy and regulatory environment, weak institutional capacity, low capital base, lack of differentiated products, inappropriate loan security requirements, and threats from other financial institutions (MFIs) were among the factors affecting the outreach and sustainability of SACCOs.

Odhiambo (2017) suggested that while managing credit risks in banks, a clearly defined mechanism for authorizing new credits and expanding existing credits plays a vital role. This argument is endorsed by Mwisho (2016), who claimed that borrowers' monitoring is very important because both the passage of time and the movements in the underlying variables change current and future exposures. The study goes further to state that some of the ways through which financial institutions can monitor their credit include; having frequent contact with borrowers and creating an environment that the bank can be seen as a solver of problems and trusted adviser. The study also argues that the bank should build the culture of borrowers being helpful if they are recognized to be in trouble and are struggling to cope with the situation; track the flow of borrower's business through the bank's account; periodic review of the borrower's reports as well as an on-site visit; update credit files for borrowers and periodically review the borrower's reports. In support of this, Maina *et al*. (2017) identified loan duration, collateral attached as security and signing of covenants played a vital role boosting loan repayment.

2.6 Critique of Existing Literature

A research article by Sam (2015) on the cash management of savings in growth of matatu SACCOs in Bungoma County, the author did cite literature in relation to the area of study. There is enough build-up of information in relation to the research. The study lacks theoretical framework on where the author builds up his research on. There is lack of sequential chronological order of literature as per specific objectives. The author describes the area of study, provides the study population of ten SACCOs and states the usage of longitudinal research design with 2017 as the baseline.

Sam (2015) stated usage of both primary and secondary data and the way it was presented. The researcher failed to state the sampling technique, computation of the sample size and analysis of primary data. Usage of inferential statistics was not stated, and there is lack of an econometric model to show the relationship between variables and establish the predictive nature of the information.

According to the research done by Mwangi (2017) on non-performing loans on financial performance of commercial bank, the study lacked proper theoretical frame work that would resonate with the study subject, in addition the research focused on only banks that were situated in Nairobi and concluded on the same without regards to other banks that are outside Nairobi County. The secondary data collected was not appropriate to conclude on the same rendering the research topic having gaps that need to be filled by this study as it equally affect financial institution that is of importance to the economy and to the world of finances.

According to Wanjira (2015), conducted a research on non-performing loans and financial performance in commercial banks, the literature of this study is not sequential hence no link from the study related to the study. The researcher also fails to explain as how the sample of the data was arrived at. In addtion the theories noted in this study are not well presented hence difficult to link the same to this study. Hence this study addresses these discrepancies to bring out what really works for non-performing loans.

The research paper that was one by Ownio (2019) on repayment performance of loans on SACCOs a case study Kisii county, the researcher failed to address issues that deal effectively with loan delinquency, the variable that the researcher had noted have no effect or have consequential effect in regards to solving the issue of loan delinquencies among sacoo. In additon the research focused on a few sample collected hence does not comprehensively address the subject matter.

2.7 Research Gaps

The review of the literature has shown that there are theoretical and empirical gaps. The direct link between the causes of management practices on loan recovery performance on recovery performance on SACCOs has not been shown. Therefore, there is a need to close the gap, and this is exactly what this study aims at.

The regulatory system characterizes non-performing loan portfolio as containing the loans which are classified as substandard, doubtful and loss categories. The non-performing loans expanded from Kshs 9.3 billion in 2017 to Kshs 13 billion in 2019

(Njeru, 2015). This presents a worrying trend since most of credits progressed by DTSs are an assurance backed, accordingly reducing the dangers of defaults. It likewise exhibits the way that despite the way that the loans and credit advances by DTSs are ensures upheld. They are as yet vulnerable to default, and thus extra measures to address the risks should be set up, (SASRA, 2017). While the withdrawable savings deposits don't contain a critical portion of the asset report, DTSs are generally faced with liquidity mismatch when giving credits dependent on a multiplier of savings. Nonetheless, there has been a move from the multiplier factor to income particularly with employer- based DTSs (SASRA, 2017).

2.5 Chapter Summary

The researcher reviewed the theories noted in the study related to non-performing loans management practices on loan recovery performance of savings and credit cooperatives in Kenya. The researcher linked these theories to the study in order to improve the research further.

The study is represented in a comprehensive diagram conceptual frame work highlighting both the independent variables and dependent variable and how they correlated to each other to help in realizing the objectives of the study. In addition the study highlighted empirical literature from other scholars on loan delinquency and their contribution to management practices and performance of SACCOs regionally in order to build up on the case study at hand.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology tells the researcher how to attain accuracy in the description, explanation, and prediction. It comprises of research design, target population, sampling procedure, data collection methods, data collection instruments, and data analysis.

3.2 Research Design

A descriptive research design was adopted for this study. A descriptive design refers to a set of methods and procedures that describe variables involving gathering quantitative even from than one variable through observation without manipulating the subject.

This design best fitted this study because it enables the investigation of the effect of more than one variable on another variable without manipulation of the variable. In particular, it was appropriate in investigating the effect of four variables; restructuring, loan guarantee, loan monitoring and loan recovery on NPLs without manipulating them. The study was therefore able to test relationships concerning the prevailing status of the variables of interest. The choice of the descriptive design is informed by the works of Cooper and Schindler (2016), who recommend a descriptive survey research design help in testing hypotheses concerning the current status of the subjects in the study. Moreover, the current study is quantitative which fits well into a descriptive research design. Considering all possible research design, the descriptive research design was the best choice for the current study to enable the study ascertain the effect of management practices on NPLs among DTS in Kenya.

3.3 Target Population

Target population is defined as a compute set of individuals, cases or objects with some common observable characteristics of a particular nature distinct from other

population (Kothari, 2014). According to Mugenda and Mugenda (2018), a target population is a well-defined as a set of people, services, elements and events, a group of things household that are being investigated. The target population of of this study comprised of 166 senior management team of the SASRA Registered SACCOs in Kenya as at 2018. There are 166 registered SACCOs (SASRA, 2017).

3.4 Sampling Frame

According to Panseersavan (2017), a sampling frame consists of a list of items from which a sample is to be drawn (Panseervasan, 2017). Sampling frame in the current study is all the 166 registered deposit taking SACCOs in Kenya (Appendix IV).

3.5 Sample and Sampling Technique

Sample is a part of population which the researcher will study in order to make inference about the whole population (Kothari, 2014). The study will undertake a census of all the SACCOs registered under Nairobi County. Census survey is chosen since the number of SACCOs is small. The advantage of the technique is that the sampling error is minimal (Nachmias, 2004). In survey, asampling error is a problem in the way that members of a population are selected for data collection, which impacts the validity of results. Numerically, a sampling error expresses the difference between results for the sample and estimated results for the population. The strength and validity of the current study is the adoption of the census survey which eliminates the sampling error.

3.6 Data Collection Instruments

The researcher preferred a questionnaire as the main data collection tool in collecting primary data from all the 166 SACCOs in Kenya because of its inherent strengths. The Questionnaires is preferred to collect data from a diverse and large group of people as it reduces cost and time (Lewis, 2015). In this regard, large amounts of information were collected from all the SACCOs in a short period of time and in a relatively cost effective way

Also, data collected using same questionnaire by the researcher and research assistants have limited effect on validity and reliability because it is a standard tool. In this study the researcher plans to use trained research assistants to help collect data from the SACCOs which are spread throughout Kenya. Scholars like Brace (2018) argue that a questionnaire data can be analyzed more 'scientifically and objectively than other forms of research data and because of the foregoing strengths of a questionnaire, it underpins the motivation to use it as the main data collection tool.

Each parameter in the questionnaire was developed to address a specific objective. The questionnaire is divided into sections of the identified variables: Loan restructuring practices, guarantee policy practices, Credit monitoring practices and loan recovery agency practice on loan recovery performance of SACCOs in Kenya. Responses were captured in a five or three–point Likert scale. Secondary data sheet was used to collect the loan recovery performance of SACCOs for a period of five years. The information gathered was analyzed from these documents which aided the researcher in making pertinent analysis in relation to variables under study.

3.7 Data Collection Procedure

Data collection procedure is the process of gathering and measuring information on targeted variables in an established system, which then enables one to answer relevant questions and evaluate outcomes. Accurate data collection is essential to maintaining the integrity of research (Bryman, (2017). The researcher will employ drop and pick later method in getting data from the 166 selected SACCOs.

The researcher sought the approval of the university to collect data by getting a written permission from the department of Jomo Kenyatta university of Agriculture Technology this formed the introductory letter. The researcher will then obtain written permission from National Council for Research, Science and Technology (NACOSTI) authorizing to collect data in the field after successfully submitting the research proposal.

After obtaining the permission, a letter was drafted and sent to each of the SACCOs through the email addresses extracted from the company websites. This was later

followed by making a call using telephone to the SACCOs management to inform them of intended research and fix the date of the data collection exercise. this resulted to a data collection schedule that spanned two months. On the material day, the researcher visited the SACCO in possession of an already printed questionnaire ready for data collection from the managers. The questionnaire was given to the managers to fill and the researcher personally collected them as and when agreed. Every effort was made that the managers are the ones providing the data. However, in case a particular targeted manager was not reachable during the entire data collection period, a different manager provided the data. The data collection exercise took two months to complete (November and December 2018)

3.8 Pilot Test

The data collection phase of a research process typically begins with pilot testing (Wellington, 2015) aimed at making assessment of the level of validity and reliability of the intended tools of data collection. This is a pre-test done prior to the commencement of data collection to determine the accuracy of the research instruments (such as questionnaires and research schedule) that was applied in obtaining desired information (White, 2017). In this study, a pilot study was done to test on clarity and ambiguity of the questions. Pre-testing the instrumentation and the entire research design permits refinement before the commencement of the study to test their reliability. Other benefits of pilot testing that motivated the current pilot study are that it helps in: assessing the feasibility of the study; designing a research protocol and assessing whether it is realistic and doable; establishing whether the sampling frame and technique are effective; identifying logistical problems which might occur with the proposed methodology; determining resources needed for the planned study and assessing the proposed data analysis techniques to uncover potential problems.

The procedures used in pre-testing the questionnaire was identical to one use used in the actual study. The number of respondents in the pilot test was 10% of the target population, which according to Mugenda and Mugenda, (2018) is enough. According to Cooper and Schindler (2016) respondents in a pilot test do not have to be

statistically selected when testing the validity and reliability of the instruments. In this regard, the questionnaire was piloted in 16 (10%) SACCOs randomly selected from the sampling frame.

The respondents were prompted to evaluate the questionnaire. The purpose is to inquire their view of the questionnaire in terms of clarity, length and structure. The analysis was performed on the pilot data and recommendations to modify the questionnaire items implemented appropriately before conducting the actual study.

3.8.1 Reliability of the Instrument

Reliability analysis was done to assess the reliability, internal consistency and validity of the survey instruments used. Reliability analysis was explained by Cronbach's reliability coefficient. The study made use of Likert scale hence suitability for reliability analysis. Likert scale enables easier analysis as it removes doubt on the type of response given. Cronbach's alpha coefficient was pegged on Mugenda, and Mugenda rule of thumb (0.7).

Alpha is a lower bound for the true reliability of the survey. Reliability is defined as the proportion of the variability in the responses to the survey that is the result of differences in the respondents. That is, it answers to a reliable survey was different because respondents have different opinions, not because the survey is confusing or has multiple interpretations. The computation of Cronbach's alpha is based on the number of items on the survey and the ratio of the average inter-item covariance to the average item variance. Under the assumption that the item variances are all equal, this ratio simplifies to the average inter-item correlation, and the result is known as the Standardized item alpha (or Spearman-Brown stepped-up reliability coefficient).

3.8.2 Validity

Validity in research is concerned with whether research is measuring what is intended for measurement and it arises due to the fact that measurements in social sciences are indirect (Nachmas (2014). Three kinds of validity were considered relevant for this research; Sampling Validity, Content and Construct Validity.

Content Validity is a measure of the degree to which data collected using a particular tool represents a specific domain of indicators or content of a particular concept (Cooper 2017). It is assessed using expert's that assessed if the questionnaire reflects the relevant domains to ensure that the instrument is adequate in content and scope.

Sampling validity deals with whether a given population is adequately sampled by the measuring instrument so as to answer the question, statements or indicators adequately represent the property being measured. This validity was not a problem in this study because a census and not a sample was used.

A commonly used method to investigate construct validity is confirmatory factor analysis (CFA). Like EFA, CFA is a tool that a researcher can use to attempt to reduce the overall number of observed variables into latent factors based on commonalities within the data. In this study, management practices were measured using loan restructuring practices, guarantee practice, and credit monitoring practices, loan recovery practices. To confirm whether these measurements are appropriate for this study, a confirmatory factor analysis (CFA) was conducted. Confirmatory factor analysis was computed for individual variables.

The value of correlation between the factors provides an indication of the discriminant validity. Through model trimming, the model is revised by deleting parameters with low factor loading (<0.5) and low reliability (R2 <0.5). The loadings in the path model provide a measure for the convergent validity; the value of R^2 provides a measure with which to assess the reliability of the variables; the value of correlation between the factors provides an indication of the discriminant validity.

Finally, this study assessed convergent validity, which is a measure of the strength of the relationship between a construct and other constructs that capture the same concept. Exploratory Factor Analysis (EFA) is one of the approaches used to test for construct validity and was used in this study. Establishing convergent validity involves ensuring that Average Variance Extracted (AVE) values are at least 0.5 (Hair, Anderson, Tatham, & Black, 2016; Chin, 2015) and this threshold was used in this study to assesses construct validity.

3.9 Data Processing and Analysis

Data processing and analysis is strictly stepwise process. Data processing involves editing, coding, classification, tabulation and graphical presentation (Creswell, 2014). The data collected in research was required a certain amount of editing for making it unambiguous and clear as well as for maintaining consistency and accuracy (Hall, 2017). Each questionnaire from the managers of the SACCOs was first physically scrutinized to identify the proportion of missing data, if any, in order to assess the suitability of each case to be included in the study. Then the data was coded and entered in the SPSS software for further processing and data screening. One of the screening methods used is Exploratory Factor Analysis.

Exploratory Factor Analysis (EFA). Is a dimension reduction technique which assesses the factor structure of a data set. It was performed in this study so as to assess the dimensions in the dataset obtained from managers regarding management practices and NPL in DTs in Kenya and therefore assess validity and validity of dataset obtained from the managers on management practices and NPLs in DTS in Kenya. First, the suitability of conducting the EFA was assessed using the two common criteria; the Kaiser Meyer-Olkin Measure of Sampling Adequacy which measures the strength of the relationships among variables and Bartlett's Test of Sphericity. The KMO is an index that ranges from 0 to 1 and for adequate sample, KMO test statistic should be greater than 0.5 (Hair *et al.*, 2017); an indication of sufficient relationships among variables while values.

On the other hand, The Bartlett's test of sphericity test is used in testing the hypothesis that the correlation matrix is an identity matrix. This simply indicates that there are sufficient relationships among variables (Wilson, 2019). Bartlett's test of sphericity is a chi-square test statistics. A significant Chi-square ($p<0.05$) is indication that the sample data is suitable for factor analysis the two tests were used to test for suitability of running EFA. Principal Component Analysis is used for extraction with to obtain distinct components/constructs in the dataset. The components were rotated to make interpretation easier by using Varimax rotation as the factors were deemed to be orthogonal. To ensure reliability and validity of

extracted components, items that load to their constructs weakly (<0.5) are expunged. Also double loading items are expunged as well to enhance discriminant validity. Items in the same construct that are free from these issues (weak loading and double loading), were be used to construct the construct index for all the study variables for testing hypothesis and model fitting.

After processing the data, the next step involved analysis of the data; computation of measures, searching for patterns of relationships, estimating values of unknown parameters and testing of hypothesis for inferences (Cooper, 2016). Correlation, Linear Regression, Multiple Regression Analysis are key statistical tests for analyzing the effect of a variable on the other. They aided in investigating the effect of management practices on NPLs in DTS in Kenya and model the relation between these variables.

3.9.1 Model Specification

A multiple regression model was used to test the hypotheses of the combined effect of the four independent variables (loan restructuring, guarantee policy, credit scoring and loan recovery) on the dependent variable (loan recovery performance). The study is guided by the following regression model1

Model 1

$$NPL=\beta_0 +\beta_1 x_1 +\beta_2 x_2 +\beta_3 x_3 +\beta_4 x_4 + \varepsilon \quad (1)$$

Whereby;

X_1 = Loan Restructuring

X_2 = Loan Guarantee

X_3 = Credit Monitoring

X_4 = Loan Recovery

ε = is the error term

B_0 is the Y intercept, β_1…to β_3 are the coefficients of the variables, ε = error term

For the test of moderation of the effect of SACCO size on the relation between management practices on NPLs, the model used is of the form

Model 2

$$NPL=\boldsymbol{\beta o} + \boldsymbol{\beta_1}\ MAGTP+\boldsymbol{\beta_2}\ \mathbf{F}SIZE + \boldsymbol{\beta_3}MANGP*FSIZE \quad (2)$$

A significant moderation effect is said to occur if the β_3 in model 2 is not equal to 0, therefore, the relationship between the management practices and NPLs depends on the value of the moderator; firm size. The study used the stepwise process to carry out the moderation analysis. first, the interaction term between the Management Practices (MGTP) and the Firm size (FSIZE) is computed. Step two, a multiple regression model with variables MGTP, FSIZE and the computed term MGTP*FSIZE variable as predictors. Third step is to test whether the regression coefficient for interaction term is significant or not, that is if β_3 is statistically significantly different from zero or not. Then the final step is to display the moderation effect graphically to easily visually the moderation. All variables in model 2 are mean centred to reduce multicolinearity (Memon *et al.,* 2019).

3.9.2 Variable Operationalization

Loan restructuring is one of the study variables. It a form of management practice to reduce non-performing loan on loan recovery performance. In this study loan restructuring is an independent variable. It is measured focusing on certain characterizes of a loan policy in place, strict loan directive, flexible restructuring process and willingness of the borrower to agree to restructuring process.

Credit Monitoring is a management function masured by focusing on modes of payments of loans, and timeliness in paying up monthly loan rates

Guarantee system is key in management of non-performing loans in SACCOs. Most SACCOs employ this system to minimize risk of non-performing loans, the study used the following attributes to measure the guarantee system. The researcher sought

to find how well formulated policies regarding Guarantee, poor record keeping for guarantors and recovery procedures from the guarantors. Table 3.1 below highlights measurements of each variable identified in this study.

Table 3.1: Type of Variable, Measurement and Data Collection Method

Variable	Type	Data	Measurement
Loan restructuring practice	Independent	Questionnaire	Ordinal
Loan Guarantee practices	Independent	Questionnaire	Ordinal
Credit Monitoring Practices	Independent	Questionnaire	Ordinal
Loan recovery agency	Independent	Questionnaire	Ordinal
Size	Moderating	Secondary	Interval
NPLs	Dependent	Questionnaire	Ordinal

3.9.3 Test for Model Assumptions

The Ordinary Least Squares method of estimation was used to estimate the regression coefficients of the multivariate model. The OLS estimation was used because, when conditions for linear regression are met, the OLS estimator is the only Best Least Unbiased Estimator (BLUE) of the coefficients with lowest variance (Giacalone, Panarello., & Mattera, 2018). This minimum variance is one of the reasons this study used OLS estimation technique. Multiple Linear Regression analysis is based on various classical assumptions that must be met for the results to be reliable. For this reason, the assumptions are test prior to conducting the regression analysis. The key assumptions are linearity, multicolinearity, Heteroscedasticity and normality (Hayes & Cai, 2007). Each of these tests are explained in detail in the next subsections

Multicolinearity: According Kothari (2019), defines multicollinearity occurs when there is correlations between two or more independent variable. It is undesirable phenomena that occur when independent variable can be expressed as a linear function of another variable in the model. The presence of multicollinearity in a set of independent variables inflates the standard error resulting to exaggerated regression coefficients (Wilcox, 2018).

Multicollinearity is tested by examining the tolerance and variance inflation factor diagnostic factor (VIF). In this study, variance Inflation Factor (VIF) was used. According to Herman (2015) Criterion, if VIF for one of the variables is around or greater than 5 there is multicolinearity associated with that variable. In this case one of these variables must be removed from the regression model (Cohen *et al.*, 2016**).**

Normality assumption: According to Bryman and Bell (2015), normality test is used to determine whether a sample data is drawn from a normally distributed population, in this case consideration on the dependent variable of this study. Statistical tests, such as the Student's t-test and the one-way and two-way ANOVA require a normally test. Normality test is just the conjecture of the underlying random variable of interest distributed normally. Some of the methods used to check for normality is by carrying out a Q-Q test. According to Kothari (2019), a Q-Q test is a plot of scores of a standard distribution against corresponding percentiles of the observed data.

Q_Q plot is a graphical tool to help assess if a set of data plausibly came from some theoretical distribution such as a Normal or exponential is data is normal the graph is almost linear. If there is statistical evidence from the test that the data deviates significantly from normal, appropriate data transforms as suggested by scholars (Darlington & Hayes, 2016) was conducted on the data prior to carrying out the multiple linear regression analysis**.**

Heteroscedasticity assumption: According to Kothari, (2019) defines Heteroscedacity is a statistical test used in statistics, especially in the context of linear regression, to describe the case where the variance of errors are not the same for all observations, while often one of the basic assumption in modelling is that the variances are homogeneous and that the errors of the model are identically distributed.

Heteroscedasticity means a situation in which the variance of the dependent variable varies across the data, as opposed to a situation where Ordinary Least Squares, (OLS) makes the assumption that the variance of the error term is constant. Heteroscedasticity complicates analysis because many methods in regression

analysis are based on an assumption of equal variance (Park & Bera, 2014). Heteroscedasticity is tested using Levines homogeneity of variables (Levine, 2016). Equality of variance is tested graphically, by observing that the plots do not van out, suggests that the variance is constant and therefore the assumption is met.

A combination of two statistical software programs aided the analysis. The SPSS was the main analysis software for descriptive and inferential statistics. The Analysis Moment Structures, AMOS graphics, aided in data testing validity and reliability of constructs because of its ability to simultaneously assesses multiple types of validity and reliability. This section discussed the main OLS assumptions and the statistical software used in the analysis of data. It is clear that the Checking model assumptions is a relatively simple, but hugely important step in optimizing model performance and increasing model reliability.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The study investigated the influence of managerial practices on NPLs in Deposit Taking SACCOs in Kenya. The NPLs in the books of SACCOs is a hindrance to their growth and consequently their ability to be engines of development. This chapter presents the results of the analysis of data collected from credit managers. The analysis is organized in sections in order to bring out clarity of understanding of the salient findings. The first section presented the preliminary information regarding the SACCOs and the respondents. In this section, demographic characteristics of the respondents and the firms surveyed are examined in order to shed light on the key attributes of the SACCOs and mangers that may influence the findings. Section two consists of exploration of the data. This is the data screening section that features Factor Analysis (FA) critical in assessing both validity and reliability. It also includes the response rate, analysis of missing data which impacts on the credibility of the returned questionnaire. The rest of the sections has two subsections; descriptive and inferential subsections. In the descriptive subsection, the screened data is used for descriptive statistics so as to get the overview of the management practices and NPLs in Kenya. but the inferential statistics subsection is to provide empirical evidence in testing the hypotheses. Test of assumptions are run prior to hypothesis testing.

4.2 Factor Analysis

Table 4.1 presents the suitability test results of conducting an EFA on the dataset. From the findings, KMO value of 0.768 which is greater than the threshold value 0.5 thus imply an acceptable degree of sample adequacy for factor analysis. The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that was high (KMO =.50), thus it was acceptable to proceed with the analysis. From the Bartlett's test of Sphericity values, the Chis-square value is 1388.137 with an associated p-value of 0.00 which is lower than the convectional probability value of 0.05. Collectively the

two test results suggested that it appropriate to proceed and interpret the EFA results in Table 4.3.

Table 4.1: Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.768
Bartlett's Test of Sphericity	Approx. Chi-Square	1387.137
	df	151
	Sig.	.000

The resultant factor structure shown in Table 4.3 shows that five factors emerged and a total 9 items with low factor loadings (<.5) were expunged. Thus the final items reduced from initial 33 to 26 items which factorized into a five factor structure (component).

Table 4.2: Factor analysis for Expunged and Retained Measures

		CMP	LRP	NPL	LGP	LRP	COMMENT
1	CMP20	.855					Retain
2	CMP22	.740					Retain
3	CMP19	.728					Retain
4	CMP18	.700					Retain
5	CMP21	.672					Retain
6	CMP29	.594					Retain
7	CMON28						Expunge
8	LR5						Expunge
9	LGP15						Expunge
10	REC23		.838				Retain
11	REC24		.811				Retain
12	REC25		.652				Retain
13	REC26		.594				Retain
14	NPL36		.573				Retain
15	LGP13		.538				Retain
16	LR6		-.517				Retain
17	LGP16						Expunged
18	NPL32			.810			Retain
19	NPL31			.796			Retain
20	NPL34			.575			Retain
21	NPL33			.564			Retain
22	LGP12				.764		Retain
23	LR11				.685		Retain
24	LPG17				.635		Retain
25	LR10				.552		Retain
26	NPL35				-.518		Retain
27	CMON31						Expunged
28	REC22						Expunged
29	LGP14						Expunged
30	LR7					.751	Retain
31	LR9					.711	Retain
32	LR8					.541	Retain
33	LR					.539	Retain

Component 1 has six items related to Credit Monitoring Practices (CMP). Component 2 has seven items related to Loan Recovery Practices (LRP). Component 3 has four items retained related to Non-Performing Loans (NPL). Component 4 has five items that relate to Loan Guarantee Practices (LGP) and Component 5 has four items that relate to Loan Restructuring Practices, so it is labeled as LRP. Items in each component were used to construct the variable index for each variable and saved in the dataset as a new variable representing each management practice in DTS in Kenya. The next step involved the analysis of reliability and validity of the identified management practice constructs and also the NPL construct.

Validity; convergent validity is assessed using AVE values of a construct which should be greater than 0.5. Results in Table 4.1 shows all AVE values are greater than 0.5 thus demonstrating adequate convergent validity of the constructs. Specifically, from the findings presented, the AVE for loan restructuring is 0.632, guarantee practices was 0.667, credit monitoring practices is 0.630, loan recovery is 0.714, and NPL is 0.644. All the variables had AVE greater than the selected threshold of 0.5 an indication that convergent validity of research item was met.

Table 4.3: Convergent Validity test

Measure	AVE	Decision
Loan restructuring (LRP)	0.632	Acceptable
Guarantee practices (LGP)	0.667	Acceptable
Credit monitoring practices (CMP)	0.630	Acceptable
Loan recovery practices	0.714	Acceptable
(NPL)	0.644	Acceptable

Construct Validity: Construct Validity was tested using the CFA techniques using AMOS and the results is shown in path model in Figure 4.1. The factor loadings are above 0.5. however, items with factor loadings below 0.5 are not displayed. These were the measures CMON2, CMON31, LGP14, LGP15, LGP16, LR5, LR6, NPL35, and REC22. These items did not meet the construct validity threshold and were therefore excluded in the final study to enhance construct validity.

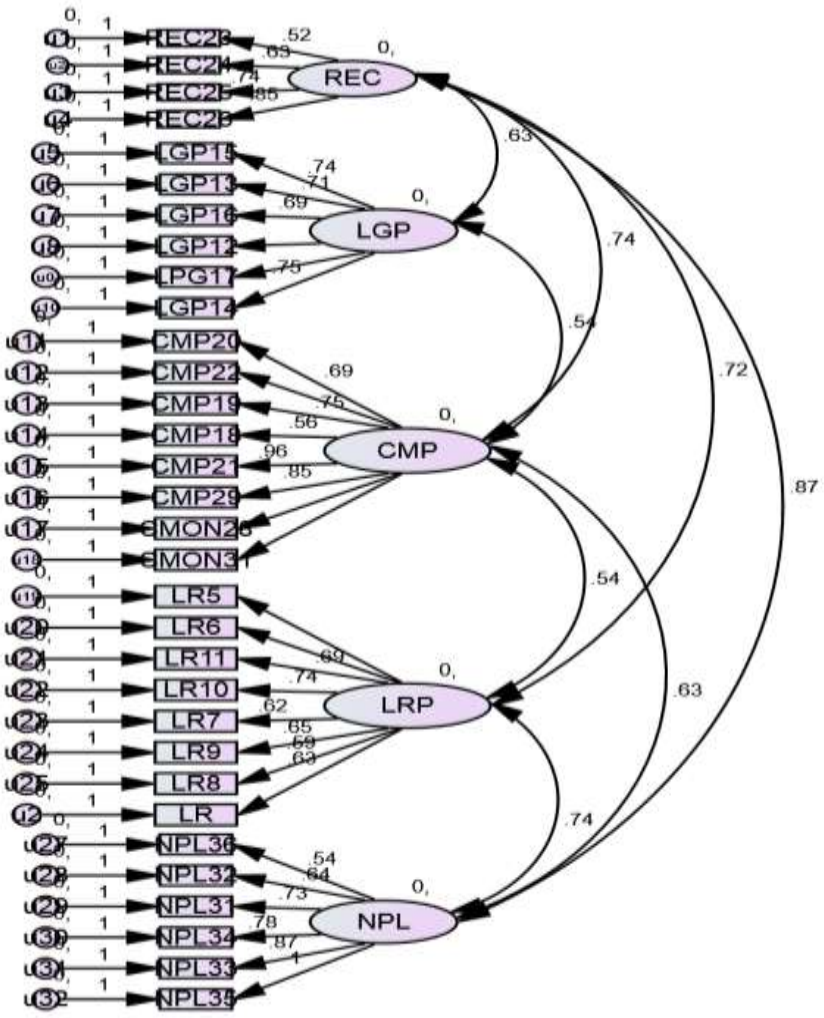

Figure 4.1: CFA model, loan restructuring practices (REC), guarantee practice (LGP), and credit monitoring practices (CMP), loan recovery practices (LRP)

Table 4.4: Assessment of AVE and Construct Reliability (CR)

Construct	Restructuring	Guaranteeing	Monitoring	Recovering	NPL
AVE	.495	.451	.504	.533	.735
CR	.795	.765	.798	.816	.932

In the CFA measurement model (figure 4.1), Construct Validity is tested using AVE and CR values provided in Table 4.4. An AVE and CR value greater than 0.5 and 0.6 respectively is desired to demonstrate Construct Validity. As seen from the results in Table 4.4, AVE values for all constructs are acceptable to represent adequate

convergent validity of constructs even when they are below the minimum acceptable threshold of 0.5, as long as CR values are higher than .6, therefore demonstrating convergent validity.

Reliability: Reliability was assessed using the Cronbach's alpha. It assesses the internal consistency of the instrument. It is a score ranging from 0 for no consistence to 1 indicating high consistency; alpha scores greater than 0.7 are desired to demonstrate adequate level of internal consistency. From the findings presented in Table 4.5, the construct loan restructuring had an average Cronbach's reliability alpha of 0.808, guarantee practices had a Cronbach's reliability alpha of 0.707, credit monitoring practices had an average Cronbach's reliability alpha of 0.742, loan recovery practices had a Cronbach's reliability alpha of 0.786 and performance had a Cronbach's reliability alpha of 0.731. This shows that these questions met the reliability criteria (α>0.7).

Table 4.5: Reliability Test Results

Variable	N	Cronbach's alpha	Interpretation
Loan restructuring (LRP)	5	.808	Reliable
Guarantee practices (LGP)	4	.707	Reliable
Credit monitoring practices (CMP)	6	.742	Reliable
Loan recovery practices	7	.786	Reliable
Performance (NPL)	4	.731	Reliable

4.4 Demographic Profile of SACCOs

The first section of data extraction tool (questionnaire) comprised of respondent's demographic information, which used nominal scale. The background information consisted of respondents gender and work experience.

4.4.1 Gender of Respondents

The study inquired the respondents to state their gender. Out of the 121 respondents, 55 (45.5%) were male and the remaining were 66 (54.5%) female. This shows that

there was almost equal proportion of both genders in credit managers' positions in deposit taking Sacco's in Kenya. The result indicated the presence of gender diversity in positions of decision making which is advantageous for the SACCOs on the basis that gender diversity can improve decision making on NPLs in a SACCO. The results demonstrate diversity in among the DTSs that is critical in creating a sense of representation by removing bad notions that some positions are a preserve of a particular gender.

Table 4.6: Gender of Respondents

Gender	Frequency	Percent
Male	55	45.5
Female	66	54.5
Total	121	100.0

4.4.2 Work Experience

The study inquired into the experience of the respondents in their current firm. They responded by selecting one of the three categories, that is, less 5 years, 5 to 10 years and over 10 years. the results presented in table 4.7 shows that about half (51.2%) of the respondents have served in the current SACCO for more than 10 years and 43% for between 5 to 10 years. it is only 5.8% of the respondents who had inadequate experience having worked for less than 5 years.

The results have shown that the employees in the managerial position are experienced which is important in dealing with matters regarding management practices and NPLs. These findings reveals that SACCOs keep employees longer that proves an important asset in today's knowledge economy. Human asset is one of the key intangible organizational assets that differentiate an organization from its competitors.

It is well known by the business decision-makers that the experiential skill of employees, account for 85% of a company's assets. Employee efficiency and talent determines the pace and growth of the organizations. In this regard, by retaining and valuing employees, it is one effective way of addressing the ever rising of NPLs in deposit taking SACCOs in Kenya. It then calls for SACCOs to recognize that the employees' knowledge, expertise, abilities, skill-sets, and experience are the invaluable and intangible assets in addressing the issues.

Table 4.7: Experience of Manager Respondents

Experience	Frequency	Percent
< 5 years	7	5.8
5 to 10 years	52	43.0
< 10 years	62	51.2
Total	**121**	**100.0**

4.5 Descriptive Analysis

This part of the study presents findings on the Likert-scale questions. They were on a 5-point Likert scale ranging from strongly disagree with a score value of 1 to strongly agree with a score value of 5. Respondents were asked to indicate their level of agreement with various statements that relate with effect of management practices on Non-performing loans (NPLs) of deposit taking savings and credit cooperatives in Kenya. The means and standard deviations were used to interpret the findings where a mean value of 1-1.4 was strongly disagree, 1.5-2.4 disagree, 2.5-3.4 neutral, 3.5-4.4 agree and 4.5-5 strongly agree. A standard deviation value less than two suggests that the findings do not deviate significantly from the mean value.

4.5.1 Descriptive Statistics for Loan Restructuring Practices

Table 4.8: Descriptive Results of Loan Restructuring Practices in DTS in Kenya

Statement	SD%(n)	D%(n)	N%(n)	A%(n)	SA%(n)
Loan repurchase is popular	2.5%(3)	1.7%(2)	2.5%(3)	80.2%(97)	12.4%(15)
Favorable restructuring terms	2.5%(3)	2.5%(3)	5.7%(7)	75.2%(91)	14.0%(17)
We have robust restructuring process	2.5%(3	2.5%(3)	5.7%(7)	81.0%(98)	8.3%(10)
Restructure help reduce defaults	2.5%(3)	2.5%(3)	8.3%(10)	78.5%(95)	8.3%(10)
We regularly restructure repayment periods	5.0%(6)	5.0%(6)	7.4%(9)	75.2%(91)	8.3%(10)
Encourage members to restructure	5.7%(7)	2.5(3)	8.3%(10)	77.7%(94)	5.0%(6)
Repurchase commission is affordable	1.7%(2)	5.0(6)	14.9(18)	77.7%(94)	1.0%(1)
Aggregate					

Key: SD: strongly Disagree, D: Disagree. N: Neutral, A: Agree, SA: strongly Agree

The study investigated the level of restructuring among DTSs in Kenya. data obtained from the managers is presented in Table 4.8. it seen that that majority; 80.2%(97) of the respondents agreed that loan purchase is popular, 75.2%(91) agreed the loan restructuring terms as favorable, 81%(91) agreed the restructuring process is robust, and 78.5%(95) agreed that restructure help reduce defaults. Furthermore, 75.2%(91) agreed that they regularly restructure repayment periods, 77.7%(94) agreed they encourage members to restructure and 77.7%(94) agreed that repurchase commission is affordable. In total the study shows that restructuring is a common management practice in most DTSs in Kenya. This is perhaps due to realization that restructuring is one of the effective means to enable a potential loan defaulter to continue servicing the loan which would have been difficulty without restructuring. To this end, from the results, it is seen that DTSs in Kenya have heightened restructuring activities efforts are in place geared towards benefitting from restructuring strategies. Whether these restructuring efforts are effective in achieving significant reduction in NPLs portfolio in the DTSs is one of the specific objective of investigation in this study. The problem of NPLs can be salvaged through engaging potential and real defaulters by discussing flexible ways to start making payments.

4.5.2 Descriptive Statistics for Loan Guarantee Practices

Table 4.9: Descriptive Results of Loan Guarantee Policies

Statement	SD	D	N	A	SA
policies to recover money from guarantors in place	1.7%(2)	1.7%(2)	1.7%(2)	85.1%(103)	9.9%(12)
The company has adopted a strong guarantee loan system	1.7%(2)	2.5(3)	2.5(3)	85.1%(103)	8.3%(10)
The policies in place makes it easy for member to be guaranteed	1.7%(2)	1.7%(2)	1.7%(2)	88.4(107)	6.7%(8)
The company is able to reduce the number of defaults through the adoption of guarantee policies	2.5%(3)	5.0%(6)	2.5%(3)	78.5%(95)	11.6(14)
The company has an efficient upraising system	2.5%(3)	5.0%(6)	1.7%(2)	87.6%(106)	4.1%(5)
The policies are friendly to customers	5.0%(6)	1.7%(2)	10.7(13)	72.7%(88)	10.7%(13)

In Kenya, DTSs have policies in place that govern loaning system and guarantors. This study inquired into the state of the guaranteeing policies in the sampled DTSs in Kenya. Data regarding loan policies from the managers regarding policies was collected and descriptive results is as shown in Table 4.10.

From the findings, on average, the respondents agreed with the statements on the effect of loan guarantee practices on the NPL in deposit taking SACCOs in Kenya as shown by an aggregate mean value of 3.920. The findings show that the respondents agreed that their company has implemented policies that makes it easy to recover money from guarantors (85,1%) also, majority (85.1%) agreed that the company has adopted a strong guarantee loan system. It is further shown that that majority agreed that the policies in place makes it easy for member to be guaranteed (88.4% (n=107), that the company is able to reduce the number of defaults through the adoption of guarantee policies (78.5%(n=95), the company has an efficient upraising system (87.6%(n=106) and the policies are friendly to customers (72.7% (n=88)).

These descriptive results overwhelmingly show that Loan Guaranteeing is at the core of the DTS's loaning scheme because financial institutions are assured by third parties to receive their repayments in the event of delinquency. This helps the cash-flow of the financial institution to consistently flow as per their loan investment plans. It in turn gives the institution the confidence to grant loans knowingly since there is a guarantee that the lending programme would not lose credibility. The findings demonstrate that DTSs in Kenya underscore the importance of loan guarantee polies as a strategy of reducing the Non-Performing loans. Guarantee policies is a central to loaning agencies and it distinguishes a competitive and quality loan from less competitive DTS. This view has made DTSs adopt insisted that shares of guarantor are cumulatively higher than the loan guaranteed. This ensures availability of funds from guarantors in case the loaned defaults beyond the stipulated time.

4.5.3 Descriptive Results Credit Monitoring Policy

Table 4.10: Credit Monitoring Practices Descriptive Results

Loan monitoring indicators	SD	D	N	A	SA
The collection deadline set by the company is strict	1.7%(2)	1.7%(2)	4.1%(5)	78.5% (95)	13.2%(16)
When borrowers fail to meet their deadline, there are deterrent penalties that the company has in place	1.7%(2)	1.7%(2)	3.4%(4)	85.1%(103)	8.3%(10)
The company carried out a regular review of credit records of its clients	3.4%(4)	3.4%(4)	5.0%(6)	82.7%(100)	5.0%(6)
Customers/debtors are constantly reminded when their loan due date is approaching	4.1%(5)	1.7%(2)	5.8%(7)	83.5%(101)	5.0%(6)

Credit monitoring practices is fundamental process employed by financial institutions to alert them of any changes in the credit that has been advanced to members. The level credit monitoring practices was investigated using four indicators. Respondents were asked to give their level of agreement with various

statements on the effect of credit monitoring policy on the NPL in deposit taking SACCOs in Kenya. The results are presented in Table 4.11. It was established that the majority agreed to all the monitoring indicators. In particular, majority agreed that the collection deadline set by the company is strict (78.5% (n=95), there are deterrent penalties that the company has in place (85.1%(n=103), the company carries out a regular review of credit records of its clients (82.7%(n=100) and they also agreed that Customers/debtors are constantly reminded when their loan due date is approaching (83.5%(n=101)

These descriptive results also revealed a scenario where loan monitoring is at the core of loaning program among DTSs in Kenya. This is mean that DTSs critically examine their internal controls and evaluate their effectiveness to curb any form bad loaning. This has seen many DTSs employ such tools such as monthly control indicating the amount outstanding, Sacco's inspection reports and risk-based audit reports. At present, DTs are investing in effective credit technology to help in credit monitoring. Thus low default case is therefore expected in SACCOs with strong Credit monitoring practices. This is in line with the findings of Mambo (2019) that credit monitoring practices assists the credit managers to confirm accuracy of any changes in the running loans to avoid any chances of non-performing loans and that it is a fundamental process employed by financial institutions to alert them of any changes in the credit that has been advanced to member. The descriptive results on monitoring leaves no doubt that the monitoring level is high in DTSs, the effect of the monitoring level on NPLs is the core of objective 2 of this study, assessed in the regression analysis.

4.5.4 Descriptive Statistics of Loan Recovery Practices

Table 4.11: Descriptive Results of Loan recovery practices

Loan recovery indicators in DTSs in Kenya	SD	D	N	A	SA
The company has an elaborate Loan Recovery plan	1.7%(2)	0%	1.7%(2)	95% (115	1.7%(2)
The company has an effective debt collection team	3.4%(4)	1.7%(2)	3.4%(4)	73.6%(89)	18.2%(22)
The company has a department whose primary role is debt recovery/collection	5.0%(6)	5.0%(6)	8.2%(10)	68.6%(83)	73.6%(89)
The company at uses agencies (outsourced) to ensure effective recovery of debt	3.4%(4)	3.4%(4)	6.8%(8)	73.6%(89)	73.6%(89)
The company effectively assesses repayment records of their clients	5.8%(7)	3.4%(4)	9.9%(12)	70.2%(85)	10.7%(13)

Five indicators of Loan Recovery in DTSs in Kenya were used in which the respondents gave their level of agreement with the statements. Descriptive results are presented in Table 4.12. Overall, the Loan Recovery descriptive result shows clearly that majority of the DTSs in Kenya have strong Loan Recovery program because a majority of respondents agreed to each Loan Recovery indicator. Precisely put, the majority of the respondents were of the view that Loan Recovery plan is elaborate, 95% (115), DTSs have an effective debt collecting team 73.6%(89), have a department whose primary role is debt recovery 68.6%(83), uses agencies to ensure effective recovery of debt 73.6%(89) and assesses repayment records of their clients 70.2%(85).

By the DTSs establishing a strong monitoring environment is an indication that the DTSs have tools necessary to recover funds that are overdue that may involve an external agent necessary in lowering corporate failures including high NPLs portfolio. Recovery of loans therefore remains at the core of loaning spectrum of a DTSs. This explains why the loaning institutions are increasingly seeking services of external debt collection agents for debt recovery because they (agents) are aggressive

and use persistent methods to recover what is due. One of the objectives of the study is whether these recovery efforts have an effect on NPLS and this is assessed using regression analysis.

4.5.5 Descriptive results of Non-Performing Loans (NPL) in DTSs in Kenya

Table 4.12: Descriptive Results of NPLs

NPL indicators in DTS in Kenya	SD	D	N	A	SA
The amount of NPL has increased over the past five years	5.0%(6)	1.7%(2)	5.0%(6)	68.6 %83	20%(24)
The number of members with NPLs have increased significantly	3.4%(4)	3.4%(4)	6.8%(8)	73.5% 89	13.4%16
Number of customers with overdue loans has been on increase in last five years	3.4%(4)	3.4%(4)	8.2%(10)	76.6%(93)	8.2%(10)
NPLs is significant problem in this company	5.0%(6)	10.0%(12)	10.0%(12)	71.9%(87)	11.6%14

The descriptive results of loan indicators shown in Table 4.12 reveal an increased presence of NPL in the DTS and therefore a major concern especially in the last five years. This is because a majority of the respondents agreed to all these indicators of NPLs. In particular, it is it is revealed that amount of NPL has increased over the past five years (68.6 %, n=83), the number of members with NPLs have increased significantly (73.5%, n=89). The number of customers with overdue loans has been on increase in last five years (76.6%, n=93) and NPLs is significant problem in this company (71.9%, n=87). The results indicate a rising trend/ a trend which is inline global trend in rise NPLSs in the last five years (Moody's report, 2020). The trend is also similar to the trend sub Saharan trend and also in Eastern African countries. Arise in NPLs means a corresponding decreased inflow of cash from investment

(loans) which in turn means that the SACCOs have limited money to further lend out for more interest on them, which is how the SACCOs make money. Thus, achieving performance milestones definitely is an uphill task for DTSs meaning that they weakened and no longer able to adequately stir development. A weakened lending power of the SACCOs has detrimental effect to the society. More citizens cannot access loans because of the less money now available for new loans, thus curtailing growth of SACCOs and the economy as well. How each DTSs deal with NPLs and its level of success, is definitely one of the critical differentiating factor of a growing SACCO from a non-growing one.

4.6 OLS Diagnostic Tests Results

The underlying assumptions in linear regression include: normality, no autocorrelation, little or no multicolinearity, homoscedasticity and linear relationship. In case of violation of the regression assumptions, the confidence intervals as well as other scientific insights derived from the regression model may be regarded as misleading, biased or inefficient and therefore the inferences derived incapable of being generalizable on other data.

4.6.1 Test for Normality

Shapiro-Wilk test was used to test the normality of data. Null hypothesis in Shapiro–Wilk test indicate that variables data are obtained from a normally distributed population (Cooper & Schilndler, 2016). Therefore, the p-value should be greater than the significant level of 0.05. According to the findings, as shown in Table 4.13 the respective p-values were: loan recovery performance of DTS (p value=0.061), loan restructuring (p value=0.115), guarantee practices (p value=0.097), credit monitoring practices (p value=0.101), and loan recovery practices (p value=0.064). All the p-values are above the predetermined p-value significance threshold of 0.05 and therefore we do not reject the null hypothesis that the sample data is from a normally distributed population. This implies that the data for all the variables were normally distributed.

Table 4.13: Tests of Normality

Variable	Statistic	Df.	Sig.
Loan recovery Performance	.969	121	.061
Loan restructuring	.987	121	.115
Guarantee practices	.981	121	.097
Credit monitoring practices	.985	121	.101
Loan recovery practices	.976	121	.064

4.6.2 Q-Q Plots

A Q-Q plot, which is also referred to as quantile to quantile plot, is a graphical tool used in the assessment of whether or not data set comes from theoretical distributions like exponential or normal. Generally, a Q-Q plot is a type of scatter plot developed through plotting two sets of quantiles against each other. If both sets of quantiles come from same distribution, they should form a roughly straight line (Singpurwalla, 2017).

Figure 4.3 shows that observed value and expected normal value for the variable loan recovery performance of deposit taking SACCOs have come from a population with a normal distribution. Even if the two distributions compared are not identical, they appear to form close to 45 degrees line to show that Y-=X. This implies that the data for the variable loan recovery performance of deposit taking SACCOS comes from a normal population.

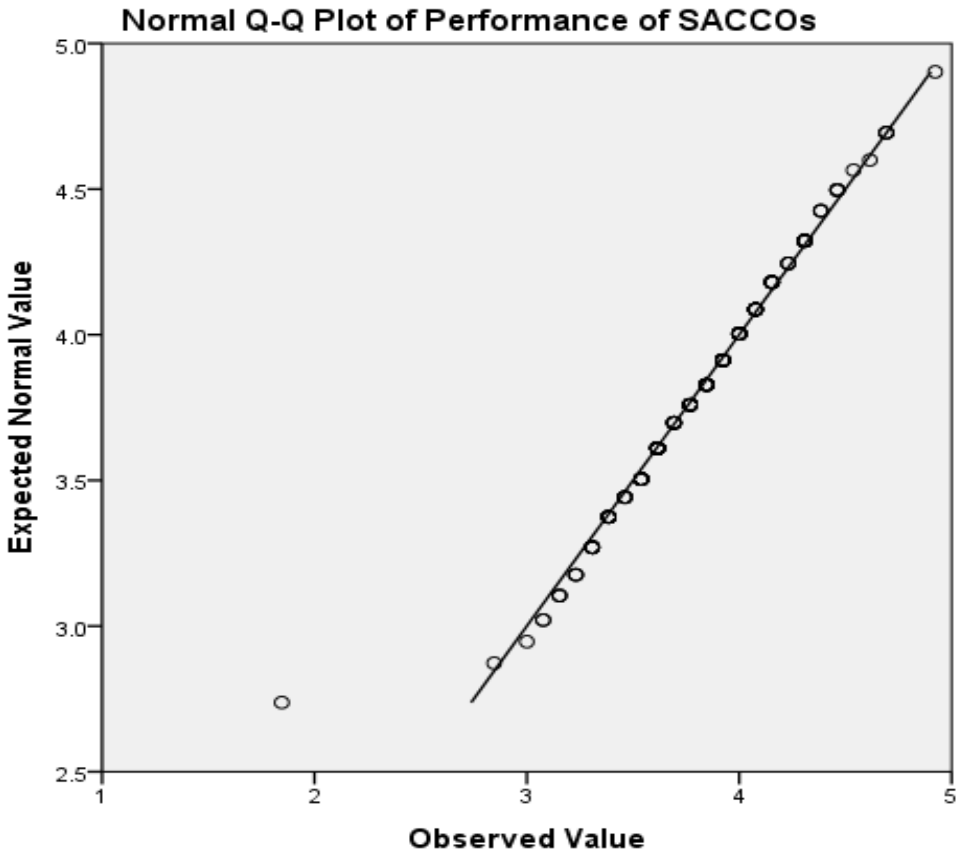

Figure 4.2: Normal Q-Q plot of Loan Recovery Performance of Deposit Taking SACCOs

Figure 4.2 shows that observed value and expected normal value for the variable Loan restructuring have come from a population with a normal distribution. The two distributions compared are identical, they appear to form close to 45 degrees line to show that Y-=X. This implies that the data for the variable loan restructuring comes from a normal population.

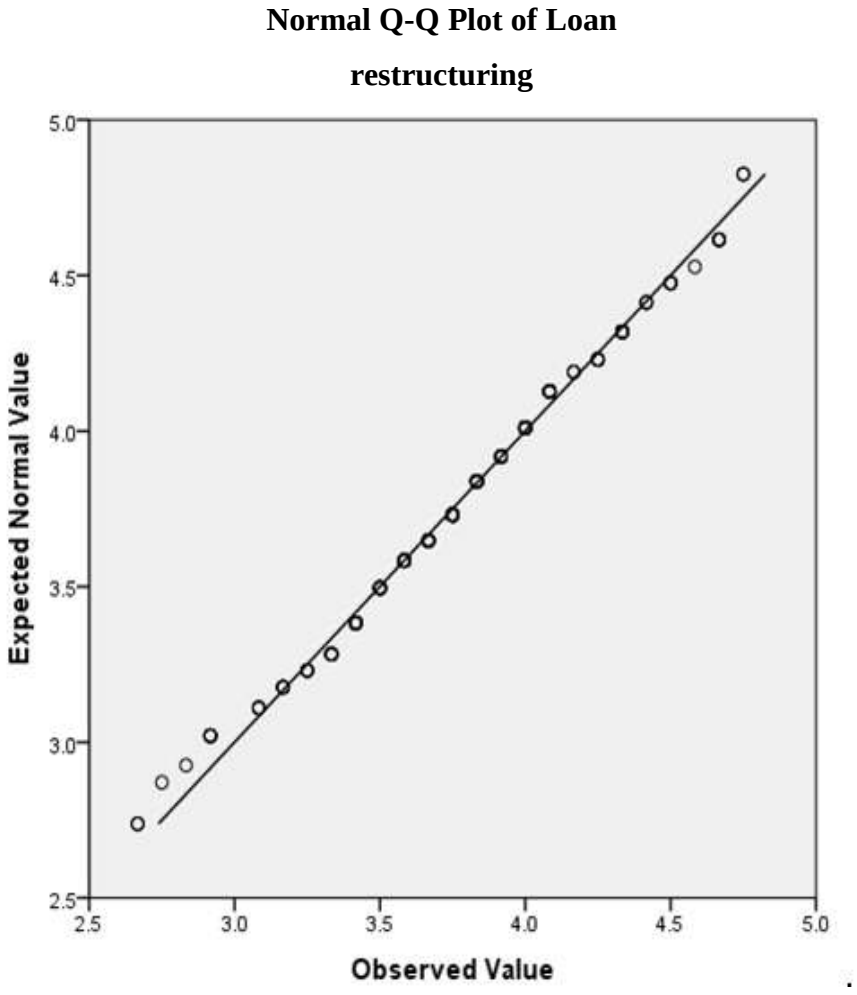

Figure 4.3: Normal Q-Q plot of Loan restructuring

Figure 4.3 shows that observed value and expected normal value for the variable guarantee practices have come from a population with a normal distribution. The two distributions compared are identical, they appear to form close to 45 degrees line to show that Y-=X. This implies that the data for the variable guarantee practices comes from a normal population.

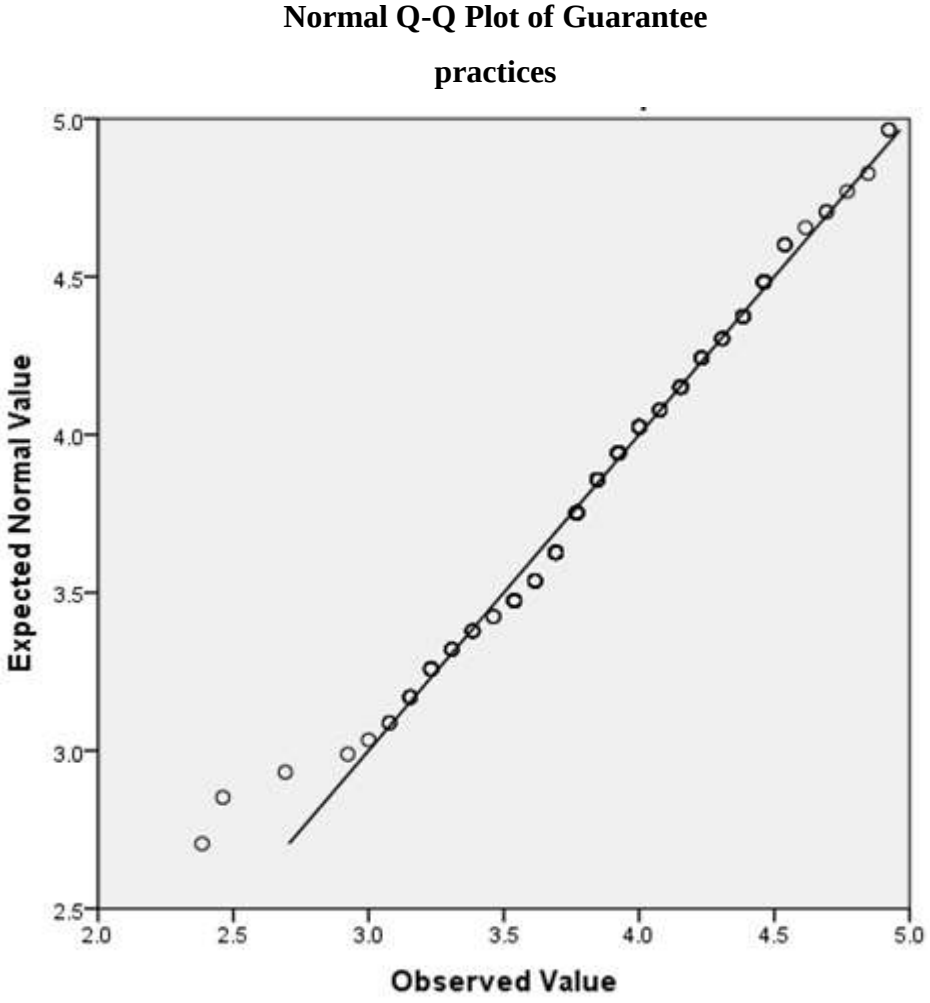

Figure 4.4: Normal Q-Q plot of Guarantee practices

Figure 4.4 shows that observed value and expected normal value for the variable Credit monitoring practices have come from a population with a normal distribution. The two distributions compared are identical, they appear to form close to 45 degrees line to show that Y-=X. This implies that the data for the variable Credit monitoring practices comes from a normal population.

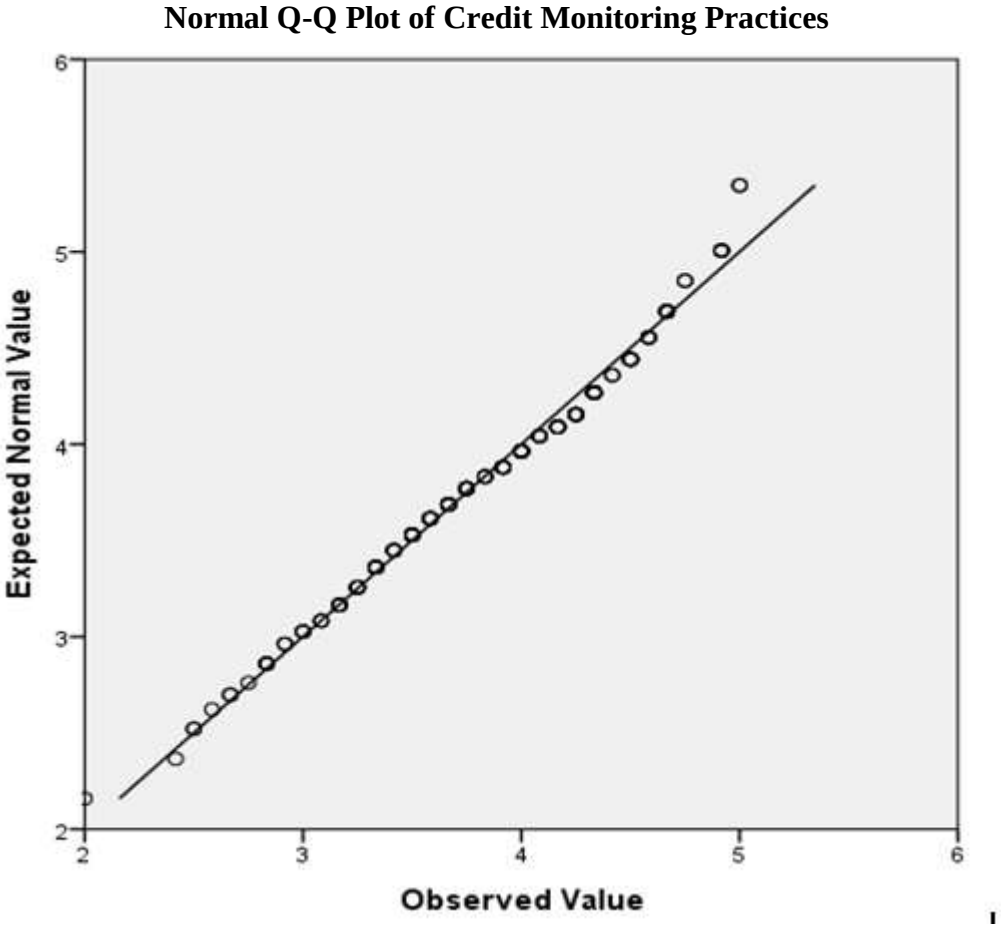

Figure 4.5: Normal Q-Q plot of Credit Monitoring Practices

4.6.3 Autocorrelation Test

Durbin–Watson statistic was used to test autocorrelation. Durbin–Watson statistic is a statistical technique used in determining the level of autocorrelation among residuals of a given regression analysis. The general principle in Durbin–Watson statistic is that values which range from 1.5 to 2.5 tend to indicate there is non-autocorrelation in a particular data. The value of Durbin–Watson statistic in this study was 1.869. Since the value is within the range of 1.5 to 2.5, it denotes that the data does not auto correlate. Therefore, there is no serial auto correlation in the data.

Table 4.14: Autocorrelation Test

Model	Durbin-Watson
1	1.869

4.6.4 Multi-collinearity Test

Multi-collinearity is used to determine the probability that independent variables (which are equal or greater than 2) in a particular multivariate regression model are highly or significantly correlated. This would mean that one variable can be predicted from the other (Singparwalla, 2017) In case the correlations among the independent variables are quite strong; the standard error of the coefficients tends to increase thus leading to undesirable events. The study adopted the use of Variance Inflation Factor (VIF) so as to measure the level of correlation among the variables. The general principle is that VIF which is greater than ten (10) tend to warrant further investigation. The VIF, as shown in Table 4.15, indicates that multicollinearity was absent among the independent variables, since the VIF values were below 10 which is the acceptable threshold. The findings show that the VIF for Loan restructuring has a VIF of 1.316, Guarantee practices has a VIF of 1.623, Credit monitoring practices has a VIF of 1.488 and Loan recovery practices has a VIF of 1.472. This implies that the independent variables are not highly correlated among themselves.

Table 4.15: Collinearity Statistics

	Tolerance	VIF
Loan restructuring	.760	1.316
Guarantee practices	.616	1.623
Credit monitoring practices	.672	1.488
Loan recovery practices	.680	1.472

4.6.5 Heteroscedasticity and Homoscedasticity Test

Violation of homoscedasticity tends to inhibit critical evaluation of forecast errors of standard deviation, which often leads to confidence intervals which are extremely narrow or extremely wide. Heteroscedasticity in this study was calculated by the use of Breusch-Pagan test. The null hypothesis for this test was that the error variances were equal and were a multiple function of variables. Homoscedasticity normally occurs when the p-value is greater than the significance level (0.05) (Bryman & Cramer, 2016). With regard to the results presented in Table 4.16, the significance level (0.05) was less than the p-value (0.4404) hence there was no violation of the homoscedasticity principle in the data.

Table 4.16: Breusch-Pagan test for Heteroscedasticity

Ho: Constant variance	
Chi2 (1)	0.60
Prob>chi2	0.4404

4.6.6 Linearity Test

One of the other assumptions in regression analysis is that the predictor (independent) variables and predicted (dependent) variable relationships are linear in nature. Linear relationship tends to exist when the values of the dependent variable(Y) and the values of the independent variables (X) are apparently in a straight line when plotted on a graph. The line could be in a negative or positive slope. As shown in Figure 4.5, Loan restructuring has positive linear relationship with Loan recovery Performance of deposit taking SACCOs in Kenya. The findings imply that increased Loan restructuring leads to an increase in the loan recovery performance of deposit taking SACCOs. The results further indicated that loan restructuring could explain 13.1% of the loan recovery performance of deposit taking SACCOs.

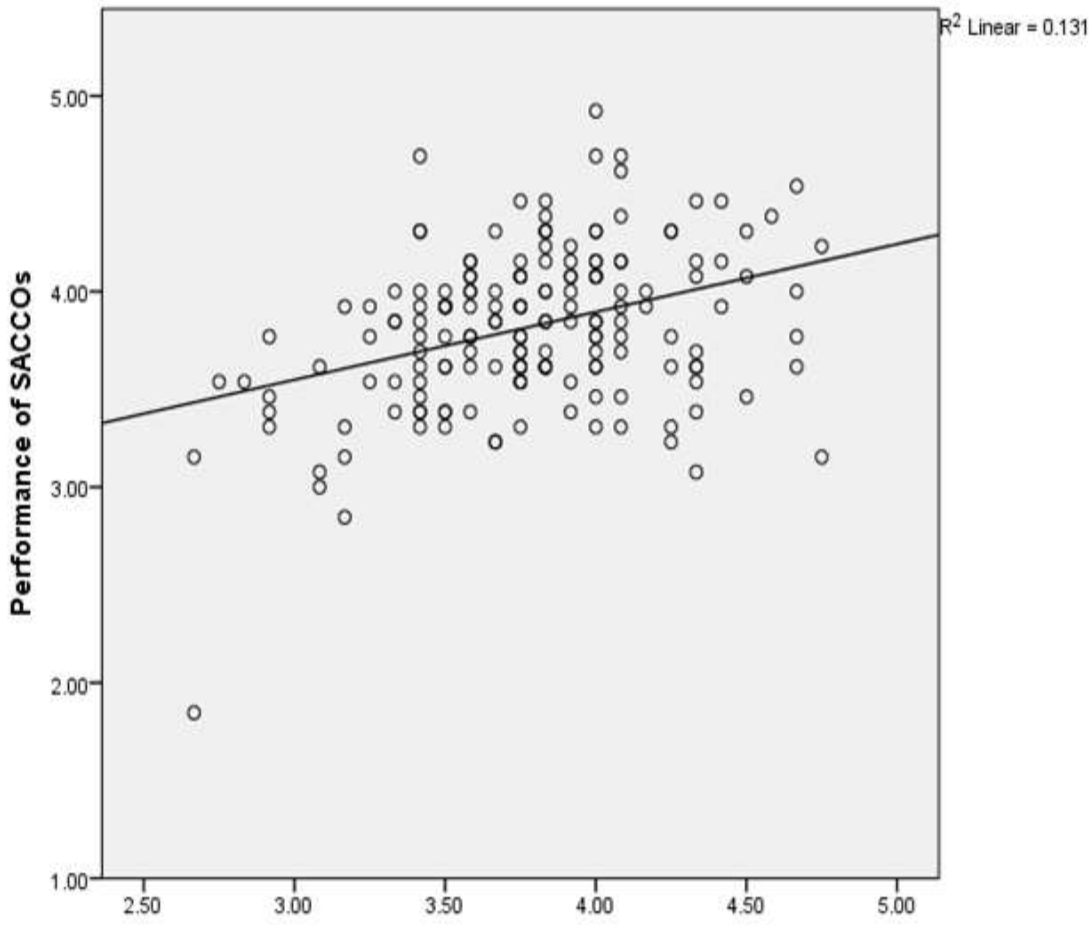

Figure 4.6: Scatter Plot for Loan Restructuring and Loan Recovery Performance of DTS

As shown in Figure 4.6, guarantee practices has positive linear relationship with loan recovery performance of deposit taking SACCOs in Kenya. The findings imply that guarantee practices leads to an increase in the loan recovery performance of deposit taking SACCOs. The results further indicated that guarantee practices could explain 19.0% of the loan recovery performance of deposit taking SACCOs in Kenya.

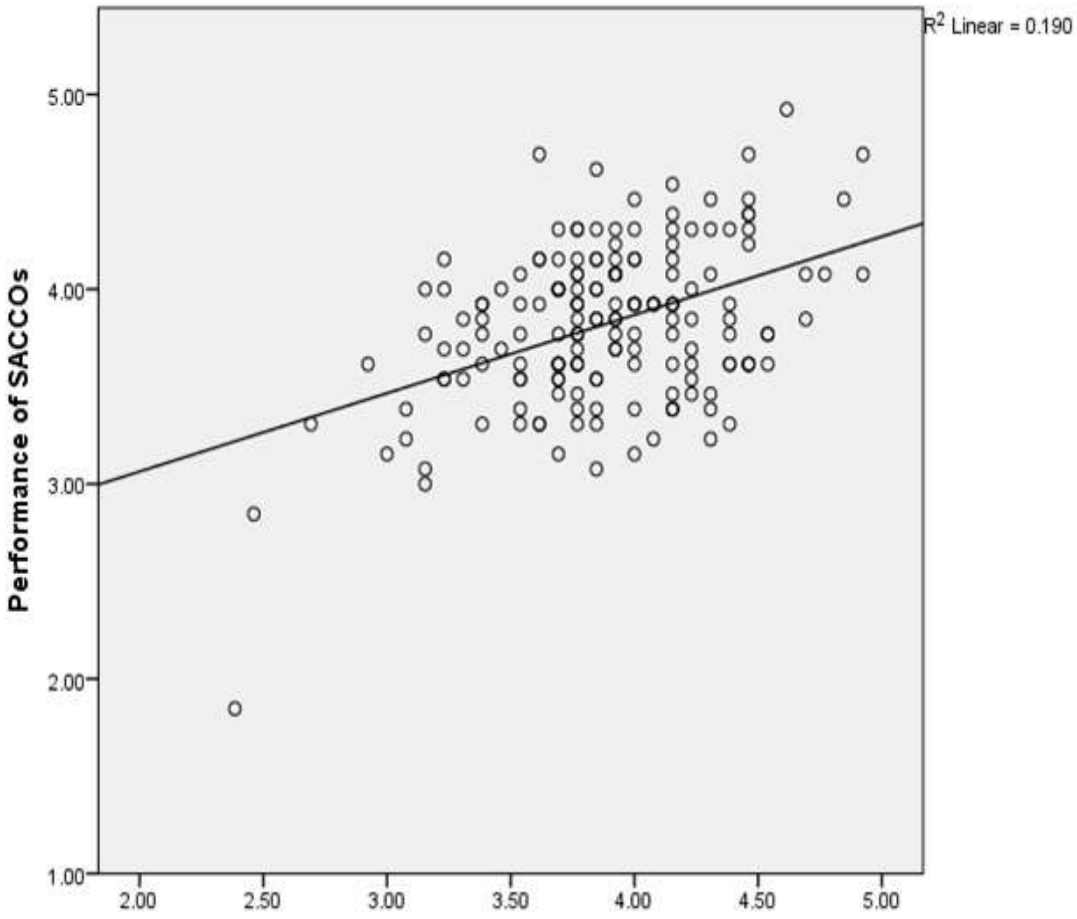

Figure 4.7: Scatter plot for Guarantee Practices and Loan Recovery Performance of DTS

From the result, as shown in Figure 4.7, credit monitoring practices has positive linear relationship with loan recovery performance of deposit taking SACCOs in Kenya. The findings imply that Credit monitoring practices to an increase in the loan recovery performance of deposit taking SACCOs. The results further indicated that credit monitoring practices could explain 8.9% of loan recovery in deposit taking SACCOs in Kenya.

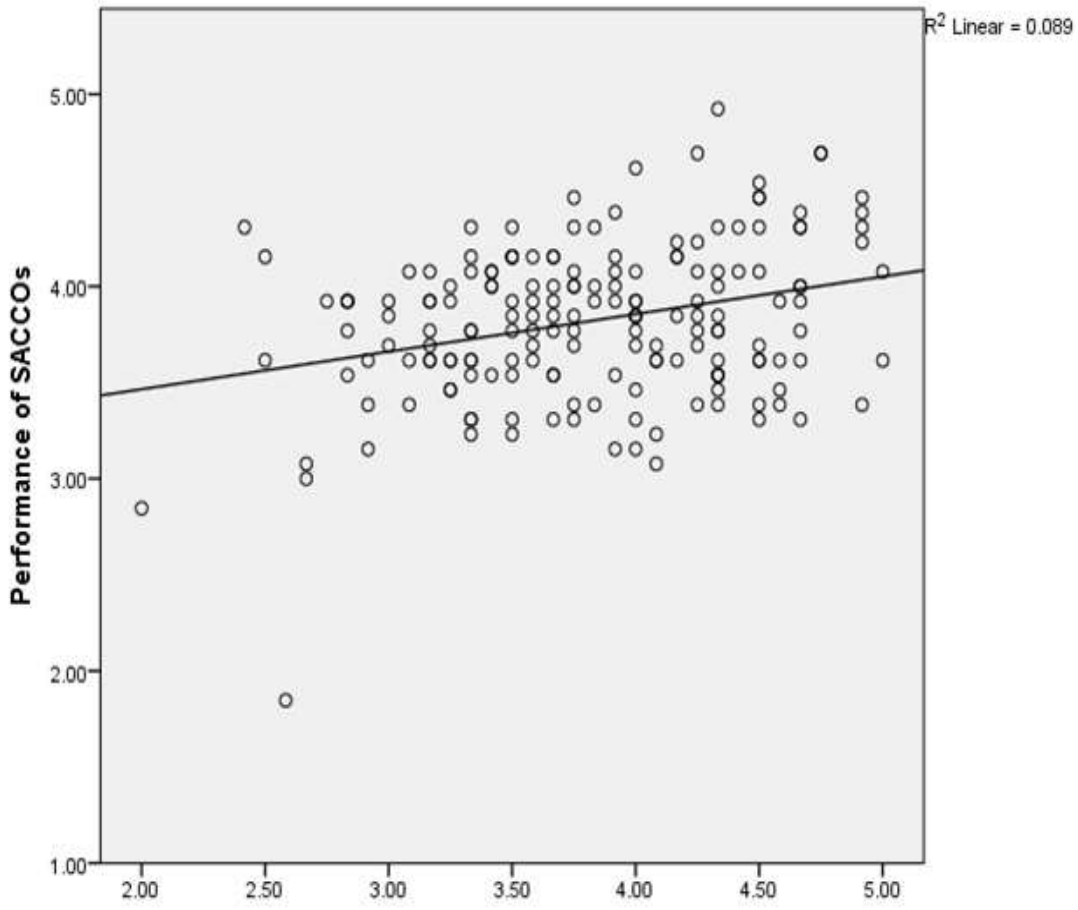

Figure 4.8: Scatter plot for Credit Monitoring and Loan Recovery Performance of DTS

According to the results, as shown in Figure 4.8, Loan recovery practices has positive linear relationship with loan recovery performance of deposit taking SACCOs in Kenya. The findings imply that Loan recovery practices leads to an increase in the loan recovery performance of deposit taking SACCOs. The results further indicated that Loan recovery practices could explain 15.6% of the loan recovery performance in deposit taking SACCOs in Kenya.

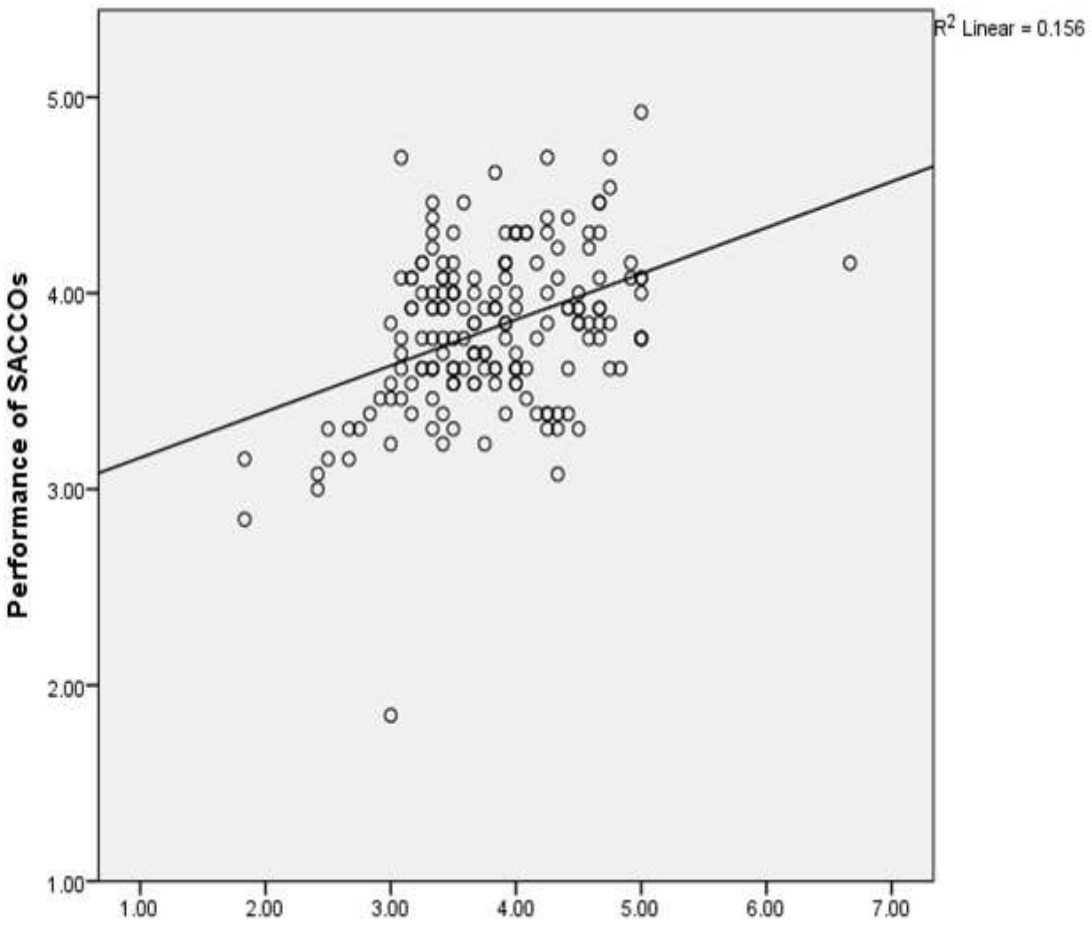

Figure 4.9: Scatter plot for Loan Recovery and Loan Recovery Performance of DTS

4.7 Correlation Analysis

The strength and the direction of the relationship between the dependent and the independent variables was assessed using correlation analysis. All the independent variables that describe the management practices together with the independent variable were correlated in order to establish the nature of relationships among variables and to establish the strength of the relationship. The values of the correlation coefficient ranges between -1 and 1 where +1 value indicates a perfect positive relationship between the variables and a value of -1 indicates perfect

negative relationship between the variables. If the correlation coefficient value is 0 it implies that there is no relationship existing between variables under consideration. A correlation coefficient of between 0.0 and 0.19 is considered “very weak”, between 0.20 and 0.39 is considered “weak”, between 0.40 and 0.59 is considered “moderate”, 0.6-0.79 is considered to “strong” and 0.80 -1.0 is considered “very strong”. The study conducted Pearson moment correlation analysis. Using the correlation coefficient, the study tested whether interdependency existed between the predictor variables and whether there was any relationship between the response variable (Loan Recovery Performance of DTSaccos) and predictor variables (loan restructuring practices, guarantee practice, credit monitoring practices and loan recovery practices).

The result of the correlation presented in Table 4.17 show that loan restructuring has a positive relationship with loan recovery performance in deposit taking SACCOs (r=0.623). The p-value (0.000) was less than the selected level of significance (0.05) and indication that the variables have significant relationship. This therefore suggests that an increase in loan restructuring was result to an improvement in loan recovery performance. The findings agree with Ferson (2015) that loan restructuring is a process used by SACCOs to avoid non-performing loans on existing debt. The process is carried out by extending the repayment period and reducing the interest rates on the loans.

The findings also show that the relationship between guarantee practices and loan recovery performance in deposit taking SACCOs is strongly positive (r=0.670). Since the p-value obtained (0.001) was less than the selected level of significance, it suggested that the relationship was significant. Therefore, guarantee practices can be said to have direct relationship with performance of loan recovery an indication that an increase in guarantee practices was result to an increase in loan recovery. The study findings concur with those of Song’e, (2015) that guarantee policy gives the institution the confidence to grant loans knowingly since there is a guarantee that the lending programme would not lose credibility.

Credit monitoring practices is seen to have a strong positive relationship with loan recovery performance in deposit taking SACCOs is strongly positive (r=0.611). The p-value (0.000) was less than the selected level of significance (0.05), an indication that the relationship between the variables was significant. These findings therefore show that improvement in credit monitoring practices resulted to an increase in loan recovery performance in deposit taking SACCOs. The findings agree with those of Mwisho (2016), who claimed that borrowers' monitoring is very important because both the passage of time and the movements in the underlying variables change current and future exposures.

Finally, loan recovery practices were found to have a strong positive relationship with performance of NPLs in deposit taking SACCOs (r=0.674). The p-value (0.000) was less than the selected level of significance (0.05) an indication that the relationship was significant. These findings show that there is direct relationship between the variables meaning that improvement in loan recovery resulted to improved performance of NPLs in deposit taking SACCOs. The findings concurs with Hannah (2017) that employing services of credit agencies for loan recovery is a very critical factor in financial sustainability and growth of the SACCOs where failure to recover loans has proved difficult.

The correlation results have shown that management practices have a positive significant association with the level of performance in NPL in Deposit taking SACCOs in Kenya. The coefficients are all positive meaning that the independent variables changes in the same direction and therefore an indication that they measure the same construct (management practices). The result therefore suggests that improving monitoring; restructuring and recovery policies can be an effective way of addressing the problem of NPLs in the SACCOs. A closer examination of the correlations between predictors indicates that they were less than 0.4 an indication that the independent variables have weak relationship among themselves. This implies that the independent variables exhibited weak multicollinearity, a requirement for conducting regression analysis. The absence of multicollinearity means that no highly correlated variables. Each variable therefore contributes unique variance in the dependent variable in the regression analysis in which the four

independent variables are all used in predicting performance of NPLs in DTSs in Kenya.

Table 4.17: Correlation Coefficients of Study Variables

		NPL	RECOVER	GUARANTEE	MONITOR	RECOVER
NPL	Pearson Correlation	1				
	Sig. (2-tailed)					
RESTRUCTURE	Pearson Correlation	.623**	1			
	Sig. (2-tailed)	.000				
GUARANTEE	Pearson Correlation	.670**	.195*	1		
	Sig. (2-tailed)	.001	.032			
MONITOR	Pearson Correlation	.611**	.170	.068	1	
	Sig. (2-tailed)	.000	.000	.356		
RECOVER	Pearson Correlation	.674**	.235	.108	.390	1
	Sig. (2-tailed)	.000	.000	.239	.000	

***. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). c. Listwise N=121*

4.8 Simple Regression Results

Regression is a technique of modeling relationships among a set of independent and dependent variables. In this study the management practices which formed the independent variable were regressed on the dependent variable (NPL performance). In the first step, simple regression analysis was run to assess the simple effect of each management practice on performance of NPLs then multivariate regression approach is used to test the joint effect of the management practices on performance of NPLs in DTS. It suffices to clarify that multivariate analysis results are recommended in hypothesis testing because in real life situations an out in a dependent variable is a resultant interplay of many predictors and on the basis of this recommendation, multivariate results were used to reject or fail to reject the hypotheses.

4.8.1 Regression Analysis of Loan Restructuring Practices and performance of NPLs

A univariate analysis was conducted to assess the effect of loan restructuring practices on the NPL in deposit taking SACCOs in Kenya. As indicated in Table 4.18, the model summary output provides the R and R square statistics of the model which provides the correlation and coefficient of determination respectively. From the model summary results, the R value is 0.674 which is the correlation between restructuring and performance. The adjusted R square, coefficient of determination, is 0.450 means that the considering restructuring practices as the only predictor of growth, it accounts for 45% of variance in performance of NPL and the remaining 55% is accounted for by other factors.

Table 4.18: Model Summary for Loan Restructuring Practices and performance of NPLs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.674[a]	.454	.450	.45108

a. Predictors: (Constant), Loan Restructuring Practices

On the other hand, ANOVA output in a regression analysis assess the fitness of the model and tests the null hypothesis that the slope of a regression line is not significantly different from zero. The ANOVA results shown in Table 4.19 shows that the model is significant ($F_{(1,119)} = 99.111$), $p<.001$ implying that the regression slope is significantly different from zero, thus, rejecting the hypothesis that the regression slope is zero. The results means restructuring has significant effect on the performance of NPLs and therefore improving restructuring practices results in improved performance.

Table 4.19: ANOVA Results for Loan Restructuring Practices and performance of NPLs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.167	1	20.167	99.111	.000[b]
	Residual	24.213	119	.203		
	Total	44.380	120			

a. Dependent Variable: NPLs

b. Predictors: (Constant), Loan Restructuring Practices

F-critical=3.921

The regression coefficient output provides the estimated standardized and unstandardized regression coefficients that are fitted in the regression model. Table 4.20 provides the estimated regression coefficient for this analysis. it shows that the regression coefficient of restructuring is 0.674 which is significant ($p < .001$). The results mean that performance of NPLs is significantly influenced by loan restructuring practices and therefore renegotiating for flexible payments of loans as a means of loan restructuring, reduces probability of default and therefore enhances performance of NPLs in DTSs.

Since the p-value (0.000) was less than the selected level of significance (0.05), the influence of loan restructuring on performance of non-performing loans in DTS was significant. We therefore reject the null hypothesis (Loan restructuring practices do not have a significant effect on NPL in deposit taking SACCOs in Kenya) and concludes that loan restructuring practices have significant effect on NPL in deposit taking SACCOs in Kenya. This agrees with the findings of Ferson (2015) that loan restructuring is a process used by SACCOs to avoid non-performing loans on existing debt.

Table 4.20: Coefficients Results for Loan Restructuring Practices and Performance of NPLs

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.282	.189		12.098	.000
	Loan Restructuring	.458	.046	.674	9.955	.000

a. Dependent Variable: Performance of NPLs

4.8.2 Regression Analysis of Guarantee Practices and Performance of NPLs

Guarantee practices data only independent variable was regressed with NPLs data as the dependent variable so as to test the simple effect of guarantee practices as the only predictor of performance. The model summary, ANOVA and regression coefficient outputs provided the results of the regression.

The model summary results in Table 4.21 shows that the correlation coefficient, R is 0.670 indicating that guarantee practices have positive effect on performance of NPLs such that an increase in effectiveness in guarantee practices results in improved NPL performance. The coefficient of determination (adjusted R Square) is 0.449 suggesting that these guarantee practices accounts for 44.9% of variance in performance of NPLs and the remaining proportion is accounted for by other factors.

Table 4.21: Model Summary for Guarantee Practices and Performance of NPLs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.670 [a]	.449	.417	.58501

a. Predictors: (Constant), Guarantee Practices

Then the ANOVA output shows that the simple model is significant has indicated by F(1,119) =10.678 which is significant indicated by a p value of <.001. The results

imply that the regression slope was significantly different from zero and there we reject the hypothesis that the model regression slope is not different from zero. Thus, the guarantee Practices is a significant determinant of performance of NPLs.

Table 4.22: ANOVA Results for Guarantee Practices and Performance of NPLs.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.654	1	3.654	10.678	.001[b]
	Residual	40.726	119	.342		
	Total	44.380	120			

[a.] Dependent Variable: NPLs

[b.] Predictors: (Constant), Guarantee Practices

The regression coefficient results in Table 4.23 shows that the standardized regression coefficient of loan Guarantee is 0.287 with a p value of 0.001 meaning that the regression coefficient is significantly different from zero as indicated by a p value which is less than 0.05 maximum threshold. The results thus implies that in a simple effect model, loan guarantee practices are significant predictors of performance of NPLs in DTSs in Kenya implying that effective and efficient application of these practices is an effective strategy to enhance overall performance of NPLs and lead to overall SACCO performance. Since the p-value (0.001) was less than the selected level of significance (0.05), the null hypothesis H_{O2}: Loan Guarantee practices have no significant effect on NPL in deposit taking SACCOs in Kenya was rejected.

Table 4.23: Coefficients Results for Guarantee Practices and Performance of NPLs.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.740	.424		6.455	.000
	Guarantee	.337	.103	.287	3.268	.001

Performance of NPLs

4.8.3 Regression Analysis of Credit Monitoring Practices and Performance of NPLs

A simple regression was run to predict NPLs performance from Credit Monitoring practices of DTSs in Kenya and the results are shown in model summary, ANOVA and regression coefficients outputs.

The model summary results in Table 4.24 below shows that the adjusted R square was .383 suggesting that the considering restructuring practices has the only predictor variable, it will explain 38.3% of variance in performance of NPL. The remaining 61.7% suggest that there are other factors that can be used to explain variation in performance of non-performing loans in deposit-taking savings and credit cooperatives.

Table 4.24: Model Summary for Credit Monitoring Practices and Performance of NPLs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.623[a]	.388	.383	.47781

a. Predictors: (Constant), Credit Monitoring Practices

The ANOVA results shows that the simple model is significant has indicated by F(1,119) =75.396 which is significant as indicated by a p value of <.001. The results imply that the model regression slope was significantly different from zero and there we reject the null hypothesis that the model regression slope is zero. Thus, the model is significant for predicting growth of NPLs from Credit Monitoring practices in DTSs in Kenya.

Table 4.25: ANOVA for Credit Monitoring Practices and Performance of NPLs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.213	1	17.213	75.396	.000[b]
	Residual	27.167	119	.228		
	Total	44.380	120			

a. Dependent Variable: Performance of NPLs

b. Predictors: (Constant), Credit Monitoring Practices

The regression coefficient results in Table 4.26 shows that the standardized regression coefficient of loan Guarantee is 0.623 with a p value which is less than 0.001 meaning that the regression coefficient is significantly different from zero as indicated by a p value which is less than 0.05 maximum threshold. The results thus implies that in a simple effect model, credit monitoring practices are significant predictors of performance of NPLs in DTSs in Kenya and therefore effective and efficient application of these practices can be an effective strategy to enhance overall performance of NPLs and lead to overall SACCO performance. Low NPLs and overall performance will also lead to improved ROA and overall ability to create employment opportunities

Since the p-value (0.000) was less than the selected level of significance (0.05), the influence was considered significant and therefore, the null hypothesis H_{O3}: Credit monitoring practices do not have a significant effect on NPL in deposit taking SACCOs in Kenya was rejected.

Table 4.26: Coefficients for Credit Monitoring Practices and Performance of NPLs

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.120	.234		9.066	.000
	Credit Monitoring Practices	.491	.057	.623	8.683	.000

a. Dependent Variable: Performance NPLs

4.8.4 Regression Analysis of Loan Recovery Practices and Performance of NPLs

Also simple regression was run to predict NPLs performance from Recovery practices of DTSs in Kenya and the results are shown in model summary, ANOVA and regression coefficients outputs. The model summary results in Table 4.27 shows that the adjusted R square value of .368 suggesting that when considering loan recovery practices has the only predictor variable, it accounts for 36.8% of variance in performance of NPL. The remaining 63.2% suggest that there are other factors that influence performance of NPLs in deposit taking SACCOs in Kenya other than loan recovery practices.

Table 4.27: Model Summary for Loan Recovery Practices and Performance of NPLs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.611[a]	.373	.368	.48359

a. Predictors: (Constant), Loan Recovery Practices

In the regression analysis, the ANOVA results show the overall fitness of the model by indicating if the regression slope is significantly different from zero. The results in Table 4.28 shows that the simple model is significant has indicated by F(1,119)

=70.773 which is significant as indicated by a p value of <.001. The results imply that the model regression slope was significantly different from zero and therefore, the model regression model can be used to predict the dependent variable. Thus, the simple model is significant for predicting performance of NPLs from Recovery practices in DTSs in Kenya

Table 4.28: ANOVA for Loan Recovery Practices and Performance of NPLs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.551	1	16.551	70.773	.000[b]
	Residual	27.829	119	.234		
	Total	44.380	120			

a. Dependent Variable: Performance of NPLs

b. Predictors: (Constant), Loan Recovery Practices

On the other hand, the regression coefficient results give the estimated regression coefficients to be fitted in the regression function. The regression coefficient results in table 4.29 shows that the standardized regression coefficient of Loan Recovery Practices is 0.611 with a p value which is less than 0.001. This results means that the regression coefficient is significantly different from zero as indicated by a p value which is less than 0.05 maximum threshold. The results thus implies that in a simple effect model, Recovery practices in DTSs are significant predictors of performance of NPLs and therefore effective and efficient application of these practices can be an effective strategy to reduce the ratio of non-performing loans and enhance overall performance of NPLs.

The p-value (0.000) was less than the selected level of significance (0.05) an indication that the influence of Recovery practices on performance of NPL in deposit taking SACCOs in Kenya was significant. Therefore, the hypothesis H_{O4}: Recovery practices do not have a significant effect on NPL in deposit taking SACCOs in Kenya was rejected.

Table 4.29: coefficients- Relation between Recovery Practices and performance of NPLs

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.459	.202		12.189	.000
	Loan Recovery Practices	.432	.051	.611	8.413	.000

4.9 Multiple Regression Analysis

The study computed multiple regression analysis to investigate the joint effect of the independent variables (management practices) on performance of NPLs. Multivariate regression analysis was run with Non-performing loans as the response variable and management practices (loan restructuring practices, guarantee practice, credit monitoring practices and loan recovery practices) as the predictors. The regression analysis produces three out puts; the model summary, the analysis of Variance results and the regression coefficient estimates.

The model summary results, which shows the fitness of the model is shown in Table 4.30. It shows an adjusted R square value .659. The R square is the coefficient that determines the proportion of the variance in the dependent variable accounted for by variables in the regression model. High values, close to one demonstrate the usefulness of the model because it shows it accounts for more variations in the predicted variable. The adjusted R square value of 0.646 was obtained which mean that the four management practices in the model accounts for 64.6% of the variance in performance of NPLs in Deposit taking SACCOs in Kenya. The remaining proportion (35.4%) is accounted for by factors not in the model. R (correlation coefficient) shows the strength of the relationship between the study variables. The

closeness of the R square to the adjusted R square can also assess the usefulness of regression results the model; the closer the adjusted and unadjusted R square values are close each other the fit is the model. Comparing the two from the table values, we conclude that they are close and the model is fit model for prediction

Table 4.30: Multivariate Regression analysis Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.811[a]	.658	.646	.36176

a. Predictors: (Constant), loan restructuring practices, guarantee practice, credit monitoring practices, loan recovery practices

Analysis of variance is used to determine whether the model developed was significant. The ANOVA results are provided in Table 4.31. The ANOVA results tests the null hypothesis that the regression slope is not significantly different from zero. The F statistics indicate that the regression slope of the model is significantly different from zero (F (4,116) =59.031, p<.001) because the p value is less than .05. Therefore, it was concluded that the model was significant and that the variables, loan restructuring practices, guarantee practice, credit monitoring practices and loan recovery practices are significant predictors off NPL in deposit taking SACCOs in Kenya.

Table 4.31: ANOVA: Multivariate regression Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.200	4	7.300	55.781	.000[b]
	Residual	15.181	116	.131		
	Total	44.380	120			

a. Dependent Variable: Performance of NPLs

b. Predictors: (Constant), loan restructuring practices, guarantee practice, credit monitoring practices, loan recovery practices

The regression coefficient results in table 4.32 provide the estimates of the standardized and unstandardized regression coefficients and were used to fit the following regression model:

Table 4.32: Coefficients results of the Multivariate Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.600	.305		1.971	.051
	RESTRUCTURE	.154	.061	.196	2.541	.012
	GUARANTEE	.211	.065	.180	3.233	.002
	MONITORING	.205	.053	.289	3.895	.000
	RECOVERY	.311	.041	.457	7.488	.000

The econometric model of the study derived from the multiple regression results is

NPL=0.600+0.154RSTRUCTURE+.211GUARANTEE+.205MONITORING+.311RECOVERY

The standardized regression coefficient for the Loan Restructuring in DTSs is 0.196 and a significant p-value of 0.012 meaning that loan restructuring has positive significant effect on NPLS in Kenya, thus the there is significant evidence to reject H01. The regression coefficient of 0.196 means that as the frequency and effectiveness of Loan Restructuring increases by a 100 percent, the number of NPLs in DTSs reduces by a significant percentage; 19.6 percent. Studies by Nyasaka (2017) also found that constant loan restructuring of NPLs has a significant lowering of number of NPLs in Kenya Commercial bank.

The result has showed the importance loan restructuring practices adopted by SACCO management in combating the rise in NPLs and therefore calls for these SACCOs to put in place loan restructuring strategies so as to address the runaway of non-performing loans.

For Loan Guarantee practices, the estimated standardized regression weight is 0.180 with a p-value of 0.002. The p-value is less than the 0.05 threshold hence there is significant evidence to reject H02 at 5 percent significance level. The regression coefficient of 0.18 suggests that, holding other model factors constant, an increase in Loan Guarantee effectiveness by 100 percent, the number of NPLs decrease by 18.0 Percent. Studies by Chih, S. H., Liang, L. W., & Huang, B. Y. (2018) are in agreement with these findings. This is because they found that when banks increase credit guarantees for SMEs, the profit efficiency of banks increase thus reduce the expected loss generated from bad debts.

Therefore, these results shows that loan guarantee practices have a positive significant effect on NPLs portfolio in DTSs in Kenya. In this case, when effectiveness of loan guarantee practices increase by a single unit, NPLs performance increase by 0.180 units. The results also underpin the role of efficiency of loan guarantee practices as means of curbing the NPLs challenges in DTSs in Kenya.

The standardized regression estimate for credit monitoring practices is 0.289 and it is significant ($p<.001$). There is sufficient evidence to reject H03 since the p-value (< 0.001) is less than the threshold value of 0.05, it is concluded that Credit Monitoring has significant effect on NPLs. the regression coefficient of loan monitoring is 0.289 suggests that an increase of Credit Monitoring effectiveness by 100 percent, the number of NPLs decrease by 28.9 percent, holding other factors constant. Piatti, and Cincinelli, (2019) also found that an increase in the quality of monitoring has a positive impact on the NPLs ratios.

Also the standardized regression estimates for Loan Recovery is 0.457 and it is significant ($p<0.001$). Based on these results, there is sufficient evidence to reject H04 since the p value (($p<0.001$) is less than the 0.05 threshold value. This implies that Loan Recovery has a significant positive effect on NPLs. the regression coefficient of 0.457 means that an increase in Loan Recovery efficiency by 100 Percent, the number of NPLs decrease by 45.7%, holding other factors constant.

4.10 Moderating Effect of Firm Size on relation between Management Practices and NPLs

Moderating effect of the firm size to the relationship between Management Practices and NPLs is tested using moderated multiple regression model. The interaction term required for this test is computed as a product of centered value of Management practices and centered Firm size data values. All the three model variables are first mean-centered prior to modeling to minimize multicolinearity.

The first model with Management Practice and Firm Size has the only predictors of NPLS is fitted to test the predictive power of the Management Practice and the hypothesized moderator; Firm Size. The ANOVA results suggests that the two factors are significant predictors of NPLs because the F value is significant (F=66.195, df=2,118). The model summary results show that the model is a fit model because Management practices and Firm size account for significant variations of 52.1 Percent of NPLs in DTSs in Kenya. The regression coefficient in model 1 for Management Practices is 0.505 with a significant p value of less 0.001, an indication that Management Practices has a significant effect on NPLs in DTSs in Kenya. an increase in management practice efficiency by 100 percent, the NPLs improves by a significant 50.5 percent. Similarly, firm size has positive significant effect on NPLs (β=0.266, p<.001). This results is an indication that the Firm size passes the initial condition that a potential moderator must first be a significant predictor of the dependent variable.

The second model is the model of interest in moderation analysis because it includes the model 1 variable plus interaction term whose regression coefficient is critical in test of moderation. The regression coefficient of interest is the interaction coefficient. The key findings result is that the interaction term is significant (β=0.160 p=0.190), and therefore it is evident that significant moderation effect is noted. There is sufficient evidence to reject H05 and state that Firm size has a significant moderating effect on the relation between Management Practices and NPLs. The moderated model (model 2) accounts for 2.2% (R square change =0.022, p=0.019) higher positive effect on NPLs than that of management practices alone.

Table 4.33: Model Summary results of moderation effect of firm size on relation between Management Practices and NPLs

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.727[a]	.529	.521	.623	.529	66.195	2	118	.000
2	.742[b]	.551	.539	.611	.022	5.679	1	117	.019

[a]. Predictors: (Constant), MGTP, FSIZE

[b.] Predictors: (Constant), MGTP,FSIZE, INTERACTION

Table 4.34: ANOVA results of moderation effect of firm size on relation between Management Practices and NPLs

ANOVA						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	51.318	2	25.659	66.195	.000[b]
	Residual	45.740	118	.388		
	Total	97.058	120			
2	Regression	53.436	3	17.812	47.773	.000[c]
	Residual	43.622	117	.373		
	Total	97.058	120			

Table 4.35: coefficient Results of moderation effect of firm size on relation between Management Practices and NPLs

Coefficients [a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.720	.186		3.880	.000
	MGTP	.505	.090	.505	5.281	.000
	FSIZE	.266	.090	.266	2.785	.006
2	(Constant)	.548	.196		2.794	.006
	MGTP	.455	.090	.455	4.724	.000
	FSIZE	.254	.089	.254	2.705	.008
	INTERACTION	.160	.060	.160	2.383	.019

a. Dependent Variable: C-NPLs

To further confirm that indeed firm size as significant moderation effect, the moderation results are probed using graphical plots to examine the slope differences of the effect of management practice on NPLS at different levels of the moderator. In graphical probing of moderation, the aim is to demonstrate that the slopes of the graphs at each level of the hypothesized moderator are significantly different. As shown graphically in Figure 4.10, the and Table 4.34, the slope of big SACCO is higher than for small SACCOs meaning that the relation between management Practices and NPLS is stronger in large DTSs than in small ones similar to this results, Hussain et al., (2020) also found a strengthening effect of firm size on the effect of management practice in terms of capital structure and NPL.

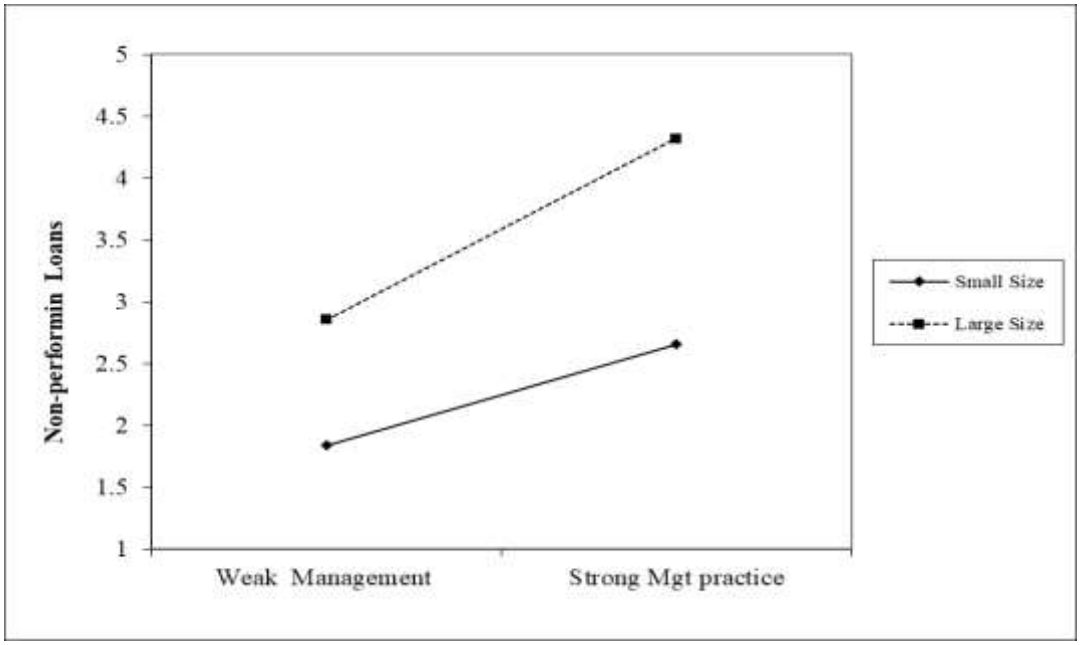

Figure 4.10: The slope test result of the moderation Effect of SACCO size on management practices and NPLs

Table 4.36: slope test result of moderation effect of SACCO size on management practices and NPLs

	Small firm	**Large firm**
Gradient of slope for Small size	0.455	0.615
t-value of slope for Small size	10.174	5.614
p-value of slope for Small size	0.000	0.000

Table 4.37: Summary of hypothesis test results

Hypothesis	Method and test statistic	Test result, t and p	Decision
H_O1: Loan Restructuring practices does not affect loan nonperformance among DT-SACCOs in Kenya.	Multiple Linear Regression	β= .154 t =2.541, p=.012	Reject H01
HO2: Guarantee practices have no significantly effect on loan nonperformance among DT-SACCOs in Kenya.	Multiple Linear Regression	β= .211 t=3.223, , p=.002	Reject H02
HO3: Credit Monitoring practices have no significant effect on loan nonperformance among DT-SACCOs in Kenya.	Multiple Linear Regression	β=.205 t=3.895, , p<.001	reject H03
HO4: Loan Recovery practices do not have significance effect on loan nonperformance among DT-SACCOs in Kenya.	Multiple Linear Regression	β= .311 t=7.488, , p<.001	Reject H04
HO 5: SACCO size has no significance moderating effect on the relation between management practices and NPL among DT-SACCOs in Kenya.	• Moderated Multiple Regression • Slope Test	β=. 160 t=2.383, p=.019	Reject H05

This analysis established evidence that Credit Recovery has the strongest positive effect on NPLs (β= .311. t=7.488, p<.001) followed by Credit Monitoring (β=.205. t=3.895, p<.001) and loan restructuring (β= .154 t =2.541, p=.012). The moderation test results further establish evidence that management practices are significant predictors of NPLs in Kenya and that SACCO size strengthens the relation.

CHAPTER FIVE

SUMMARY, CONCLUSIONS RECOMMENDIONS

5.1 Introduction

This chapter presents the summary of the study findings as per the objectives of the study. It also presents the conclusions and recommendations based on the findings. The chapter also concludes by suggesting areas for further study based on the limitations and scope of the current study.

5.2 Summary of the Study Findings

The study investigated the effect of Management Practices on Non-performing loans (NPLs) of deposit taking savings and credit cooperatives in Kenya and the moderating role of firm size was also investigated. To achieve the objective, five specific objectives were formulated based on theoretical and empirical studies on management practices and therefore a conceptual model of the relationship between the management practices, firm size and performance of NPLs was constructed. The hypothesized relationships were then tested empirically using data from 121 credit mangers of DTSs in Kenya. Descriptive statistics was used to describe the data. Factor analysis was run to determine the facto structure of the dataset when it was apparent from the Bartlett's sphericity tests that factorizing was appropriate. Reliability and validity was tested. Prior to conducting multivariate analysis, classical assumptions were tested first and the study found no violation of the assumptions of normality, Heteroskedasticity, multicolinearity and linearity assumptions. The following subsections presents the findings of each objective variable

5.2.1 Loan Restructuring practices and Non-Performing Loans

Descriptive statistics results revealed that most DTSs in Kenya embrace loan restructuring practices as most of the credit managers agreed on statements regarding loan restructuring. This practice allows SACCOs to relook at the terms of the loan in

order or renegotiate its debts to improve or redeposit liquidity so that it can continue its operations.

The multivariate regression technique was run to investigate the effect of Restructuring on performance of DTSs and from the findings, it was established that restructuring has significant effect on performance of NPLs in DTSs in Kenya. Thus the hypothesis that restructuring practices do not have a significant effect on NPL in deposit taking SACCOs in Kenya was rejected. Thus the efforts in renegotiating the terms of payments by SACCOs helps the potential defaulters to continue servicing their loans which will otherwise been difficult to service. Therefore the SACCO management acting as an agency, play a critical role in embracing effective restructuring policies to ensure mutual benefit of the SACCO stakeholders by reducing agency costs that affects the overall loan performance in the SACCOs. Restructuring is central to addressing the runaway NPL ratio in most financial institutions due to the economic difficulties most borrowers go through and borrowers are likely to avoid repayment of their loans thus necessitating proactive management of SACCOs to put in place mechanisms such as loan restructuring practices to encourage flexible plans, to come up with innovative products so as to reduce the non-performing loans in SACCOs.

The study found that size of the SACCO moderates the positive relation between Loan restructuring though not to a significant extent therefore restructuring of Loans has relatively similar impact on overall performance on NPLs in both small and large SACCOS. The findings are in line with the asymmetric information theory in that, irrespective of SACCO size, the management seek the information, which sometimes is not accurate, about the lender by carrying out screening of the borrower by looking the past records such as past credit history in order to determine the best product suited to the borrower. In the case a potential borrower of a SACCO provides accurate and comprehensive information at the time of seeking credit it enables SACCO management to make informed credit decisions thereby reducing the credit risks associated with such a borrower thus level of non-performing loans is reduced and therefore enhancing portfolio quality for SACCOs.

5.2.2 Loan Guarantee practices and Non-Performing Loans

The analysis also applied both descriptive and inferential statistics so as to meet the study objectives. Descriptive statistics results revealed that the DTSs in Kenya have embraced guarantee policies as means of ensuring quality SACCO portfolio. The credit managers affirmed that guarantee practices is in place instead of demanding for physical collateral which is difficulty demand for most members. Effective guarantee policies provide self-policing mechanism anchored on sense of mutual trust and collective responsibility to ensure on-time repayment

The bivariate regression results and multivariate regression results established that guarantee policies significantly affect performance of SACCO's NPLs in positive manner such that as a SACCO effectively improves on guarantee policies, the NPLs decreases and therefore overall portfolio quality of SACCOs improve as well. it is common nowadays for SACCOs to aggressively seen targeting organized groups, formal or informal to take advantage of the guarantee aspect of the group members who are in most cases trust each other because they are formed around shared characteristics and needs such as economic interests, shared production and marketing needs, common residential or production location or shared ethnic background. The aggressiveness of SACCOs to target these groups underlines the importance the SACCOs attach to these groups and guarantee practices to address the constant problem of NPLs portfolio which is on a steady rise since 2015.

The study found no significant moderation effect of SACCO size on the relation between guarantee practices and performance in both univariate regression and moderated multiple regression analysis meaning that guarantee practices uniformly impacts on performance of NPLs in both small and large SACCOs. The small and large SACCOs implements similar guarantee policies in which members guarantee each other on mutual trust and as means of avoiding demand for collaterals and therefore the polies impacts on performance similarly in both small and large SACCOs. This view explains the observed non-significant moderation effect of SACCO size.

Empirical studies have shown that effective guarantee policies are negatively associated with NPLs portfolio (Mwithiga, 2017) thus improving on guarantee practices can save many SACCOs in Kenya in which majority are facing an imminent collapse due to high borrowing appetite and high default by members.

5.2.3 Credit Monitoring and Non-Performing Loans

The study found that credit monitoring was well entrenched in most DTSs in Kenya as means of taming the problem of rising NPLs in the SACCOs books. There if effective credit monitoring so as to provide for timely information for analysis by the credit managers to get appropriate information as means of finding a solution to a potential problem of default. Monitoring is the routine collection, analysis, and use of information about how well the project is going. It aims at provision of information on progress. Monitoring can be continuous or periodic review by management at every level of the hierarchy of implementation of an activity to ensure that input deliveries, work schedules, targeted outputs, and other required actions are proceeding according to plan. The SACCOs that have in place internal controls to gain further insight of their effectiveness are able to reduce the effect of asymmetric information about the loan seeker which is a crucial step in reducing loan delinquency.

The study hypothesis linking credit monitoring and performance of DTS in terms of NPLs results showed that credit monitoring has positive enhance effect on SACCO performance meaning that good NPLs portfolio is associated with SACCOs that have in place effective credit monitoring practices. Based on the Asymmetric Information Theory, normally, it is not easy to distinguish between bad and good borrowers and therefore difficulty in assessing whether the borrower will default in loan servicing or not, and therefore, credit monitoring then plays a central role in reducing the information gap between the borrower and loan officer.

The introduction of Credit Reference Bureaus is one avenue to guide SACCOs about the financial ability of the loan seekers. Effective SACCOs continuously invest in credit monitoring facilities with a view to strike a balance between cost and

inconveniences of accurate information search about members' loanebility as well as create shareholder value.

5.2.4 Loan Recovery and Non-Performing Loans

The study also examined the effect of Loan Recovery practices on performance of SACCOs. Descriptive statistics results revealed that Loan recovery practices is also widely entrenched as one of the management strategies to the issue of NPLs. The practice allows the SACCOs to employ mechanism to recover funds that are overdue using various strategies and therefore means it incurs costs. Prudent SACCOs invest in recovery mechanisms and tools that are cost effective to positive returns on investments. Some costs SACCOs have to meet are to use credit recovery agents who are known to be aggressive and use of persistent methods in their methods to recover what is due who even threaten to forward a defaulter to CRB. Use of credit recovery agency has gained popularity in the recent because it frees an organization from diverging to other issues and therefore freed to concentrate on its core business. In this case, by involving the agencies, the SACCOs employees remain free and focused to effectively assess potential borrower and disburse quality credits which is a vital process to deter or minimize cases of non-performing loans. Thus, the loan recovery practices have cost implications to an organization and can differentiate a performing SACCO from a non-performing one.

Both bivariate regression and multivariate regression results established a significant effect of Credit Recovery practices on performance of SACCOs and therefore the null hypothesis was rejected. The findings imply that effective SACCOs have low or decreasing NPL ratio in their books of accounts and are associated with effective recovery practices as well. The results underscore the importance of delegating services to the third party so as to concentrate on the primary business and therefore reveal that prudent SACCO management effectively identify troublesome debts and them to the agents.

The study established a significant moderation effect of SACCO size on the relation between loan recovery practices and performance of DTSs in Kenya. The conditional effect of Loan Recovery practices that the positive relation between Recovery

practices and performance is strongest in small firms and weakest in large firms. The study hypothesized that size of the SACCO moderates the positive relationship between Recovery Practices and performance of NPLs in SACCOs in Kenya such that the relationship is strong in small SACCOs than in large SACCOs was accepted.

The results means that an improvement of loan recovery practices causes a greater improvement in performance of NPLs in small SACCOs as compared to the improvement in large SACCOS. SACCO size was found to moderate the relation between management practices and performance such that it had an enhancing effect. This led to the rejection of the null hypothesis that SACCO size does not have a significant moderating effect on the relation between management practices and performance.

5.2.5 Moderating effect of SACCO size on the Management Practices and NPLs

The test was carried out using the moderated multiple regression to test the significance of the interaction term. The study established that firm size has a significant moderation effect on the relation between Management practices and NPLs. The study established that firm size strengthens the relation such that changes in management practices in large SACCOs has a higher corresponding response in the number or quantity of NPLs as compared to small SACCOs. The hypothesis H05 was thus rejected.

In each of the findings in this section, it is evidence that each of the four Management Practices considered demonstrated a significant positive effect on NPLs; the four hypothesis are rejected and implied that management practices have a positive effect on NPLS. It is also evident that SACCO size enhance the positive effect of Management Practice on NPL.

5.3 Conclusions

Based on the study findings, the following conclusions are the key conclusions that were made:

The study found a positive significant effect of loan restructuring on performance of NPLs in DTSs in Kenya. The study thus concluded that loan restructuring is critical determinant of the performance of SACCOs and therefore effective restructuring plays a significant role on the SACCOs performance. Prudent management that desire to create stakeholder value would strive to be effective in restructuring strategies. One of the ways a SACCO can do this, is by carefully extending credit period of the loan, invest in innovative products and services that help reduce the risk of default and therefore bad debts. This requires investment in skilled and experienced human resources with entrepreneurial mindset to spot opportunities so as to support the innovation strategy. Effective Loan restructuring policies have positive effect on NPLs in both small and large SACCOs therefore small and medium SACCOs can be more competitive and therefore grow by not only remaining effective in restructuring, but investing resources on other management practices as well like loan recovery practices. By so doing the SACCOs can reap the synergic effect of the practices necessary to perform

Regarding Guarantee practices, the study found positive relation between guarantee practices and performance. It is concluded that the guarantee practices in DTSs in Kenya is a significant determinant of performance such that SACCOs that have effective guarantee practices are better placed to record low NPLs ratio. Therefore, the consistent application of quality guarantee practices helps SACCOs reduce the NPLs portfolio that leads to high ROA and encourage further investment and development.

The study found that credit monitoring has a positive significant effect on performance such that SACCOs that have effective credit monitoring practices in place record better performance and those with ineffective practices record poor performance. Thus the study concluded that SACCOs that are effectively committed to quality credit monitoring practices and have made it a culture that is shared

throughout the organization are able to reduce NPLs portfolio, increase their liquidity, ROI, ROA, invest, create employment opportunities and therefore be hubs of developments. Credit monitoring practices plays a key role to alert of any changes in the credit that has been advanced to members to help them confirm accuracy of any changes in the running loans to avoid any chances of non-performing loans. Actual site visits (observation). The importance of monitoring has necessitated SACCOs to seek information by organizing personal interview with loanee, using repayment records within the SACCO and CRB report.

Credit management practices are positively and significantly related to the performance of DTSs in Kenya and that management practices accounted for 65.8% of performance variance; thus indicating other factors apart from management practices account for the performance variance (34.2%). Thus, the key conclusion is that the problem of NPLs which is on the rise can be substantially tackled through effective credit management practices and also through other strategies apart from credit management practices. Bottom line,; Good credit risk management practices is at the core of sound management of NPLs which leads averts rising non-performing loans that compresses profit margins, liquidity, and reduces ability to invest and grow. The survival of a SACCO depends on how effectively and efficiently the loan is collected whilst retaining the customers for continued cash inflow into the SACCO.

Significant moderation effect of firm size on Management practice-NPLs relationship. Small SACCOs need to record higher improvement to achieve positive effect on NPLs compared to large SACCOs. Large SACCOs on the other hand have an enhancing effect of management practice on NPLs which if they consistently leverage on it, can realize higher positive returns on NPLs.

5.4 Recommendations

Since the established that restructuring is critical determinant of the performance of SACCOs and therefore effective restructuring plays a significant role on the SACCOs performance. The study recommends that policy makers in DTSs together with other stakeholders should work and develop strategies that strengthen this

relationship. The DTSs should therefore adopt innovative products and services like extending repayment periods usually with a lower installment amount. to reduce the risk of default. The restructured loan takes into consideration the repayment issues along with operational difficulties for the borrower which is causing the loan delinquency.

Performance of SACCOs in Kenya is also influenced by Guarantee loan practices the SACCOs adopt. Therefore, SACCO regulators should establish effective guarantee schemes by that take into account the prevailing economic conditions and capability of the borrower but at the same time guard the shareholder wealth would ensure the consistency in the performance. The government too should demonstrate its commitment by for example setting up an office at the Treasury to manage and coordinate all matters related to credit guarantee scheme in the country. Nevertheless, the fact that DTSs are increasingly establishing special segments to address credit management issues and the liquidity in the market shows an interest and desire that can be exploited by all stakeholders in the creation of an effective credit guarantee scheme in financial institutions including SACCOs.

The monitoring practices also enhance the credit performance and therefore monitoring. There is need for DTSs to keep comprehensive loan use data as one way of monitoring loan use. One of the reasons of loan delinquency is project failure of the loan was invested in; this has necessitated the need to verify the purpose of every loan, the ability of the project to generate additional income for loan repayment, and the need to monitor loan proceeds usage more closely. It is documented that poor monitoring skills in SACCOs largely contribute to absence of loan use data which is the beginning of problems of loan delinquency. DTSs should invest in resources, skilled manpower, and good network to enhance loan monitoring. A report by Sacco Societies Regulatory Authority report pinpointed at lack of finances, skilled human resource, and poor network distribution as contributing to challenges in monitoring how members use their loans. There is need for SACCOs to request for reference documents to verify the purchases of products or commodities and at times make physical visits to verify if the funds were used for the intended purposes.

Given that recovery efforts by loan recovery agencies that are contracted by SACCOs contribute to reduce loan portfolio of bad loans, it is important therefore for the SACCOS to engage the services of credible and experienced recovery agencies of reputable stand so as to continue contain the problem of NPLs. This will not only free the SACCOs to concentrate on their core business of disbursing and managing funds but will also ensure that agencies do not tarnish the name of the SACCO can even scare away potential customers. Normally the agencies follow up persistent serviced debts using intimidating tactics and therefore the credibility of employees is critical in their overall performance. In this regard, financial institutions are now required to ensure that the recovery agencies hired by them carry out verification of the backgrounds of their employees in order to deter the agencies from employing persons with questionable records.

Bottom line, it is upon the SACCO management to put in place an overall good loan Programme that that not only enhances the welfare of the member but also repays itself fully. This calls for SACCO management to ensure that loanee is well trained to not only utilize but also understand the implications of being a loanee. The loan amount is sufficient (never under lend, never over lend. The security provided is good it is adequate value to cover the entire loan and still leave a good margin. The loaned amount is easy to dispose and that the loan appreciates in value with time for the SACCO. Repayment period is adhered and that shorter the repayment period the less risk the venture and the more liquid the society would remain

The inability to service a loan by a member has both psychological and health effect because of the stress of financial debts to an individual especially in current dynamic and competitive lending environment. Financial stresses have been linked to migraine, cardiovascular disease, and absences from work, insomnia, and more. The inability further brings in hopelessness and low self-esteem. It can lead to even more debt, since sufferers sometimes try to relieve their depression by treating themselves to a shopping spree, overdrinking or some other mental getaway. Therefore, the loans members take from SACCOs for development may turn out to do exactly the opposite of what it was intended to do and end up harming their very life.

The underlying cause of bad loans is the lack* of monitoring mechanisms of loaning process on the side of the SACCO to supervise and advice on usage to the members. Most members do not divulge accurate information during loan application either because of the increased loan appetite. To curb such a problem of bad loans, it is now becoming increasingly necessary that SACCOs invest in monitoring and evaluation instruments to seek accurate information on the applicant during loan application.

This study has enriched credit management concept by demonstrating that credit management practices is one of the ways that DTSs adopt to enhance loan portfolio and therefore improve their overall ability to meet their obligation to the stakeholders. The study has also enriched the credit management literature by enlightening that SACCO size interacts with management practices and impacts on performance to lessen against loan losses in a dynamic and competitive lending environment.

5.5 Areas of Future STUDY

This study which was carried out on involved only DTSs to showed that management practices accounts for substantial variance (65%) of performance. A study in future covering a wider scope for example, banks and other loan lending institutions provides a more credible insight of the management practices and NPLs situation in Kenya.

Although the questionnaires in this study showed adequate reliability to collect data from credit managers as the only method of data collection, this method has its inherent weaknesses thus future studies should adopt multiple sources of data collection instruments which includes observations.

The study only focused on institutional factors on NPLs. however, other Macro economic factors like GDP, interest rate and inflation, to mention a few, conspire to determine the ability of an individual to service the loan. Future studies should have considered that takes into account these factors in one study.

This study used a cross sectional data that is limited in information and time dimensions, future studies should consider using a panel data because it has space and time dimension appropriate in modeling both the common and individual behavior of SACCOs. It also controls for heterogeneity of cross sectional data thus providing unbiased estimates.

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APPENDICES

Appendix I: Questionnaire

This Questionnaire is meant to collect data among the SACCOs in Kenya. The study aims at establishing the influence of managerial practices on Nonperforming Loans in deposit taking SACCOs in Kenya. SACCOs play a significant contribution in Kenyan financial sector and non-performing loans are a hindrance to their growth. Accurate information was critical for scholars and stakeholders for decision making. You are requested to provide data to enable my scholarly requirement for a PHD of Jomo Kenyatta university of Technology.

Any information provided in this Questionnaire was used for purposes of research only Please take a few minutes to complete this questionnaire Please answer the questions correctly and as accurate as possible. You need not write your name on the questionnaire.

Section A: demographic data

No.	**Questions**	**Answer categories**	**Tick**
1. .	Gender	1. Male 2. Female	
2.	Classification	1. Rural 2. Urban	
3.	Work experience with the organization	3. Less than 5 year 4. 5-10 years 5. Over 10 years	

PART B

SECTION I: LOAN RESTRUCTURING PRACTICES

Kindly indicate you level of agreement with the following statements on the loan restructuring practices of your deposit taking SACCO. Please tick (√) the appropriate answer. Where SD represents strongly disagree, D represents disagree, N represents neutral, A represents agree and SA represents strongly agree.

Loan Restructuring Practices	**SD**	**D**	**N**	**A**	**SA**
Loan repurchase is popular					
Favorable restructuring terms					
We have robust restructuring process					
Restructure help reduce defaults					
We regularly restructure repayment periods					
Encourage members to restructure					
Repurchase commission is affordable					

SECTION II: LOAN GUARANTEE PRACTICES

Kindly indicate you level of agreement with the following statements on the Loan Guarantee Practices of your deposit taking SACCO. Please tick (√) the appropriate answer. Where SD represents strongly disagree, D represents disagree, N represents neutral, A represents agree and SA represents strongly agree.

Loan Guarantee Practices	SD	D	N	A	SA
policies to recover money from guarantors in place					
The company has adopted a strong guarantee loan system					
The policies in place makes it easy for member to be guaranteed					
The company is able to reduce the number of defaults through the adoption of guarantee policies					
The company has an efficient upraising system					

SECTION III: CREDIT MONITORING PRACTICES

Kindly indicate you level of agreement with the following statements on the Credit Monitoring Practices of your deposit taking SACCO. Please tick (√) the appropriate answer. Where SD represents strongly disagree, D represents disagree, N represents neutral, A represents agree and SA represents strongly agree.

Credit Monitoring Practices	**SD**	**D**	**N**	**A**	**SA**
The collection deadline set by the company is strict					
When borrowers fail to meet their deadline, there are deterrent penalties that the company has in place					
The company carried out a regular review of credit records of its clients					
Customers/debtors are constantly reminded when their loan due date is approaching					

SECTION IV: LOAN RECOVERY PRACTICES

Kindly indicate you level of agreement with the following statements on the Loan Recovery Practices of your deposit taking SACCO. Please tick (√) the appropriate answer. Where SD represents strongly disagree, D represents disagree, N represents neutral, A represents agree and SA represents strongly agree.

Loan Recovery Practices	**SD**	**D**	**N**	**A**	**SA**
Loan recovery indicators in DTSs in Kenya					
The company has an elaborate Loan Recovery plan	SD	D	N	A	SA
The company has an effective debt collection team	SD	D	N	A	SA
The company has a department whose primary role is debt recovery/collection	SD	D	N	A	SA
The company at uses agencies (outsourced) to ensure effective recovery of debt					

SECTION V: PERFORMANCE np

Kindly indicate you level of agreement with the following statements on NPS your deposit taking SACCO. Please tick (√) the appropriate answer. Where SD represents strongly disagree, D represents disagree, N represents neutral, A represents agree and SA represents strongly agree.

NPL indicators in DTS in Kenya	**SD**	**D**	**N**	**A**	**SA**
The amount of NPL has increased over the past five years					
The number of members with NPLs have increased significantly					
Number of customers with overdue loans has been on increase in last five years					
NPLs is significant problem in this company					

We have come to the end of this questionnaire filling session

Appendix II: List of Licensed SACCOs

NO.	NAME OF SOCIETY	POSTAL ADDRESS
11.	BANDARI SACCO SOCIETY LTD	P.O.BOX 95011 – 80104, MOMBASA.
12.	BARAKA SACCO SOCIETY LTD	P.O.BOX 1548 – 10101, KARATINA.
13.	BARATON UNIVERSITY SACCO SOCIETY LTD	P.O BOX 2500 – 30100, ELDORET.
14.	BIASHARA SACCO SOCIETY LTD	P.O.BOX 1095 – 10100, NYERI.
15.	BIASHARA TOSHA SACCO SOCIETY LTD	P.O BOX 189 – 60101, MANYATTA.
16.	BI-HIGH SACCO SOCIETY LTD	P.O.BOX 90 – 60500, MARSABIT.
17.	BINGWA SACCO SOCIETY LTD	P.O.BOX 434 – 10300, KERUGOYA.
18.	BORESHA SACCO SOCIETY LTD	P.O.BOX 80 – 20103, ELDAMA RAVINE.
19.	CAPITAL SACCO SOCIETY LTD	P.O BOX 1479 – 60200, MERU.
20.	CENTENARY SACCO SOCIETY LTD	P.O.BOX 1207 – 60200, MERU.
21.	CHAI SACCO SOCIETY LTD	P.O.BOX 278 – 00200, NAIROBI.
22.	CHUNA SACCO SOCIETY LTD	P.O.BOX 30197 – 00100, NAIROBI.
23.	COMOCO SACCO SOCIETY LTD	P.O. BOX 30135 – 00100, NAIROBI
24.	COSMOPOLITAN SACCO SOCIETY LTD	P.O.BOX 1931 – 20100, NAKURU.
25.	COUNTY SACCO SOCIETY LTD	P.O.BOX 21 – 60103, RUNYENJES.
26.	DAIMA SACCO SOCIETY LTD	P.O.BOX 2032 – 60100, EMBU.
27.	DHABITI SACCO SOCIETY LTD	P.O.BOX 353 – 60600, MAUA.
28.	DIMKES SACCO SOCIETY LTD	P.O.BOX 886 – 00900, KIAMBU.
29.	DUMISHA SACCO SOCIETY LTD	P.O BOX 84 – 20600, MARARAL.
30.	ECO-PILLAR SACCO SOCIETY LTD	P.O. BOX 40 – 30600, KAPENGURIA
31.	EGERTON SACCO SOCIETY LTD	P.O.BOX 178 – 20115, EGERTON.
32.	ELGON TEACHERS SACCO SOCIETY LTD	P.O BOX 27 – 50203, KAPSOKWONY.
33.	ELIMU SACCO SOCIETY LTD	P.O BOX 10073 – 00100, NAIROBI.
34.	ENEA SACCO SOCIETY LTD	P.O.BOX 1836 – 10101, KARATINA.
35.	FARIDI SACCO SOCIETY LTD	P.O. BOX 448 – 50400, BUSIA.
36.	FARIJI SACCO SOCIETY LTD	P.O.BOX 589 – 00216, GITHUNGURI.
37.	FORTUNE SACCO SOCIETY LTD	P.O.BOX 559 – 10300, KERUGOYA.
38.	FUNDILIMA SACCO SOCIETY LTD	P.O.BOX 62000 – 00200, NAIROBI.

NO.	NAME OF SOCIETY	POSTAL ADDRESS
39.	GITHUNGURI DAIRY & COMMUNITY SACCO SOCIETY LTD	P.O.BOX 896 - 00206, GUTHUNGURI.
40.	GOOD HOPE SACCO SOCIETY LTD	P.O.BOX 158 - 20500, NAROK.
41.	GOODWAY SACCO SOCIETY LTD	P.O BOX 626 - 10300, KERUGOYA.
42.	GUSII MWALIMU SACCO SOCIETY LTD	P.O.BOX 1335 - 40200, KISII.
43.	HARAMBEE SACCO SOCIETY LTD	P.O.BOX 47815 - 00100, NAIROBI.
44.	HAZINA SACCO SOCIETY LTD	P.O.BOX 59877 - 00200, NAIROBI.
45.	IG SACCO SOCIETY LTD	P.O.BOX 1150 - 50100, KAKAMEGA.
46.	ILKISONKO SACCO SOCIETY LTD	P.O BOX 91 - 00209, LOITOKITOK.
47.	IMARIKA SACCO SOCIETY LTD	P.O.BOX 712 - 80108, KILIFI.
48.	IMARISHA SACCO SOCIETY LTD	P.O.BOX 682 - 20200, KERICHO.
49.	IMENTI SACCO SOCIETY LTD	P.O.BOX 3192 - 60200, MERU.
50.	JACARANDA SACCO SOCIETY LTD	P.O. BOX 1767 - 00232, RUIRU.
51.	JAMII SACCO SOCIETY LTD	P.O.BOX 57929 - 00200, NAIROBI.
52.	JOINAS SACCO SOCIETY LTD	P.O.BOX 669 - 00219, KARURI.
53.	KAIMOSI SACCO SOCIETY LTD	P.O BOX 153 - 50305, SIRWA.
54.	KATHERA RURAL SACCO SOCIETY LTD	P.O BOX 251 - 60202, NKUBU.
55.	KENPIPE SACCO SOCIETY LTD	P.O.BOX 314 - 00507, NAIROBI.
56.	KENVERSITY SACCO SOCIETY LTD	P.O.BOX 10263 - 00100, NAIROBI.
57.	KENYA ACHIEVAS SACCO SOCIETY LTD	P.O. BOX 3080 - 40200, KISII.
58.	KENYA BANKERS SACCO SOCIETY LTD	P.O.BOX 73236 - 00200, NAIROBI.
59.	KENYA HIGHLANDS SACCO SOCIETY LTD	P.O.BOX 2085 - 20200, KERICHO.
60.	KENYA POLICE SACCO SOCIETY LTD	P.O.BOX 51042 - 00200, NAIROBI.
61.	KIMBILIO DAIMA SACCO SOCIETY LTD	P.O. BOX 81 - 20225, KIMULOT.
62.	KINGDOM SACCO SOCIETY LTD	P.O.BOX 8017 - 00300, NAIROBI.
63.	KIPSIGIS EDIS SACCO SOCIETY LTD	P.O BOX 228 - 20400, BOMET.
64.	KITE SACCO SOCIETY LTD	P.O.BOX 2073 - 40100, KISUMU.

NO.	NAME OF SOCIETY	POSTAL ADDRESS
66.	KMFRI SACCO SOCIETY LTD	P.O.BOX 80862 - 80100, MOMBASA.
67.	KOLENGE TEA SACCO SOCIETY LTD	P.O BOX 291 - 30301, NANDI HILLS.
68.	KORU SACCO SOCIETY LTD	P.O. BOX PRIVATE BAG, KORU.
69.	K - PILLAR SACCO SOCIETY LTD	P.O.BOX 83 - 20403, MOGOGOSIEK.
70.	K - UNITY SACCO SOCIETY LTD	P.O.BOX 268 - 00900, KIAMBU.
71.	KWETU SACCO SOCIETY LTD	P.O BOX 818 - 90100, MACHAKOS.
72.	LAINISHA SACCO SOCIETY LTD	P.O. BOX 272 -10303, WANG'URU.
73.	LENGO SACCO SOCIETY LTD	P.O.BOX 1005 - 80200, MALINDI.
74.	MAFANIKIO SACCO SOCIETY LTD	P.O BOX 86515 - 80100, MOMBASA.
75.	MAGADI SACCO SOCIETY LTD	P.O.BOX 13 - 00205, MAGADI.
76.	MAGEREZA SACCO SOCIETY LTD	P.O.BOX 53131 - 00200, NAIROBI.
77.	MAISHA BORA SACCO SOCIETY LTD	P.O.BOX 72713 - 00200, NAIROBI.
78.	MENTOR SACCO SOCIETY LTD	P.O.BOX 789 - 10200, MURANG'A.
79.	METROPOLITAN NATIONAL SACCO SOCIETY LTD	P.O.BOX 5684 - 00100, NAIROBI.
80.	MMH SACCO SOCIETY LTD	P.O.BOX 469 - 60600, MAUA.
81.	MOMBASA PORT SACCO SOCIETY LTD	P.O.BOX 95372 - 80104, MOMBASA.
82.	MUDETE TEA GROWERS SACCO SOCIETY LTD	P.O.BOX 221 - 50104, KAKAMEGA.
83.	MUKI SACCO SOCIETY LTD	P.O BOX 398 - 20318, NORTH KINANGOP.
84.	MWALIMU NATIONAL SACCO SOCIETY LTD	P.O.BOX 62641 - 00200, NAIROBI.
85.	MWIETHERI SACCO SOCIETY LTD	P.O. BOX 2445 - 60100, EMBU.
86.	MWINGI MWALIMU SACCO SOCIETY LTD	P.O BOX 489 - 90400, MWINGI.
87.	MWITO SACCO SOCIETY LTD	P.O.BOX 56763 - 00200, NAIROBI.
88.	NACICO SACCO SOCIETY LTD	P.O.BOX 34525 - 00100, NAIROBI.
89.	NAFAKA SACCO SOCIETY LTD	P.O.BOX 30586 - 00100, NAIROBI.
90.	NANDI FARMERS SACCO SOCIETY LTD	P.O BOX 333 - 30301, NANDI HILLS.

145.	UNI-COUNTY SACCO SOCIETY LTD	P.O BOX 10132 - 20100, NAKURU.
146.	UNITED NATIONS SACCO SOCIETY LTD	P.O.BOX 30552 - 00100, NAIROBI.

NO.	NAME OF SOCIETY	POSTAL ADDRESS
147.	UNISON SACCO SOCIETY LTD	P.O BOX 414 - 10400, NANYUKI.
148.	UNIVERSAL TRADERS SACCO SOCIETY LTD	P.O.BOX 2119 - 90100, MACHAKOS.
149.	VIHIGA COUNTY FARMERS SACCO SOCIETY LTD	P.O BOX 309 - 50317, CHAVAKALI.
150.	VIKTAS SACCO SOCIETY LTD	P.O BOX 2183 - 20300, NYAHURURU.
151.	VISION POINT SACCO SOCIETY LTD	P.O.BOX 42 - 40502, NYANSIONGO.
152.	VISION AFRICA SACCO SOCIETY LTD	P.O BOX 18263 - 20100, NAKURU.
153.	WAKENYA PAMOJA SACCO SOCIETY LTD	P.O.BOX 829 - 40200, KISII.
154.	WAKULIMA COMMERCIAL SACCO SOCIETY LTD	P.O.BOX 232 - 10103, MUKURWENI.
155.	WANA - ANGA SACCO SOCIETY LTD	P.O.BOX 34680 - 00100, NAIROBI.
156.	WANANCHI SACCO SOCIETY LTD	P.O.BOX 910 - 10106, OTHAYA.
157.	WANANDEGE SACCO SOCIETY LTD	P.O.BOX 19074 - 00501, NAIROBI.
158.	WASHA SACCO SOCIETY LTD	P.O.BOX 83256 - 80100, MOMBASA.
159.	WAUMINI SACCO SOCIETY LTD	P.O.BOX 66121 - 00800, NAIROBI.
160.	WEVARSITY SACCO SOCIETY LTD	P.O BOX 873 - 50100, KAKAMEGA.
161.	WINAS SACCO SOCIETY LTD	P.O.BOX 696 - 60100, EMBU.
162.	YETU SACCO SOCIETY LTD	P.O.BOX 511 - 60202, NKUBU.

Source: SACCO Society Regulatory Authority (2017)