EFFECTS OF LOAN MANAGEMENT TECHNIQUES ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN KISII COUNTY, KENYA

BY

JANEFFER NJERI MURAGE

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NOVEMBER, 2018
DECLARATION AND RECOMMENDATIONS

DECLARATION

This Research Project Report is my original work and has not been presented for any award of a Degree or Diploma in any other University.

Janeffer Njeri Murage  Signature……………. Date………………

CBM12/10280/12

RECOMMENDATIONS BY SUPERVISORS

This Research Project has been submitted for examination with our approval as university supervisors.

Dr. Vitallis Mogwambo, PhD  Signature…………………… Date……………………

Lecturer, School of Business and Economics,
Department of Accounting and Finance,
Jaramogi Oginga Odinga University of Science and Technology.

Dr. James Muya, PhD  Signature…………………… Date……………………

Lecturer, School of Business and Economics
Department of Human Resources and Strategic Management
Kisii University.
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DEDICATION

This Research Project is dedicated to my husband Francis Mamati, my sons Charles and Brian and my daughter Stella for giving me the necessary support.
ACKNOWLEDGEMENT

I wish to take this opportunity to thank the Almighty God for giving me good health during the period of writing this research Project. Secondly, I would wish to give my special appreciation to my Supervisors Dr. Vitallis Mogwambo and Dr. James Muya for their professional guidance which supported the completion of this project. Also my sincere thanks go to all my lecturers who taught me in my Masters of Business Administration programme. Finally, I extend my gratefulness to all my respondents and the employers for enabling me to get the appropriate feedback for my research questionnaires.
ABSTRACT

Loan Management techniques are strategies used by lenders to ensure that loan facilities extended to the clients are well serviced in order to ensure efficiency and effectiveness in the operations of the firm. The Deposit Taking Sacco Societies (DTSs) are an integral part of the larger Sacco sub sector in Kenya which is majorly concerned with Deposit Taking and Non-Deposit Taking Sacco Societies. Besides taking deposits, they also issue loans to their members where the deposits act as collateral. Different DTSs have been adopting different strategies to manage loans such as interest rates, loan follow ups, customer credit information sharing, loan appraisal, and group lending. However, there is a dearth of literature on the effects of loan management techniques on financial performance of DTSs. Therefore, this study sought to determine the effects of selected loan management techniques on financial performance of DTSs in Kisii County. The following objectives guided the study; to establish the effect of interest rate technique on financial performance in DTSs, to determine the effect of loan follow-up techniques on financial performance in DTSs, to find out the effect of sharing customer credit information techniques on financial performance in DTSs, to determine the effect of loan appraisal techniques on financial performance in DTSs and to find out the effect of group lending techniques on financial performance in DTSs. This study was guided by the following theories; expectation theory, liquidity preference theory and the modern portfolio theory. The study adopted survey research design that targeted all the seven DTSs operating in Kisii County according to SASRA report (2016); Gusii Mwalimu Sacco, Kenya Achievers Sacco, Wakenya Pamoja Sacco, Egerton Sacco, Mwalimu National Sacco, Afya Sacco and vision point Sacco. Seventy respondents consisting of Chief Executive Officers, Credit Managers, Finance Managers, Internal auditors and Loan field Officers were targeted. Since the targeted population was small, census sampling was adopted. Questionnaires were utilised to gather primary data whereas a data collection form was used to gather secondary data. Data was analyzed using descriptive statistics (mean, standard deviation and percentages). Multiple regression model was used to determine the effect of loan management techniques on financial performance of DTS in Kisii County. The study revealed that loan management techniques positively affected financial performance of DTS in Kisii County. It was also revealed that the effect was generally weak because $r^2$ was 0.269. Based on the beta co-efficients, interest rate, loan follow-ups, loan appraisal and sharing of customer credit information had a positive effect on financial performance of DTS whereas group lending had a negative effect. Based on the discussions of the findings, the following recommendations were made; DTSs should develop policies that aim at a thorough appraisal of borrowers before they are given loans. DTSs should also review their interest rates regularly based on the cap set by the central bank, this will assist in controlling the borrowing rate and also the repayment of the loans hence improving the financial performance of the DTSs. DTSs should register with credit reference bureau to ensure they access and share customer credit information which will enhance their decision making capabilities. Lastly, DTSs should enhance group lending in order to bring about joint liability which will in turn lead reduced incidences of defaulters.
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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The business dictionary (2018) defines loan repayment as the process of fulfilling loan obligations as agreed between the lender and the loaned. This is paid through periodic instalments. Additionally, loan management techniques are the tactics used by the lenders in order to ensure that loan credit given to clients are well serviced to ensure sustainability and efficacy in the daily operations of the firm. The Deposit Taking Sacco Societies (DTSs) is an integral part of the larger Sacco sub sector in Kenya which is majorly concerned with Deposit Taking and Non-Deposit Taking Sacco Societies. The deposits taken by the DTS are non-withdrawable but instead they are used as collaterals for loans and they are refundable upon withdrawal of membership (SASRA, 2014). They are also mandated to offer banking services such as demand deposits, payment services, and quasi banking services popularly known as ATMs, and FOSA. DTSs are licensed and supervised under the societies Act of 2008 (Financial Sector Regulatory Forum, 2011).

A cooperative society is an autonomous entity which is composed of a group of people who have freely joined efforts to meet common socio-economic needs (International Co-operative Alliance, 2005). On the other hand, Okwee (2011) while conducting a study on Corporate Governance and Financial Performance of SACCOs in Lango Sub Region revealed that SACCOs are faced with so many credit risks. Some of the credit risks include inability of clients to service their loans on time and risks related to daily operations of the firms. In the study, the researcher concluded that less compliance with corporate governance as well as high risk levels may explain the relatively poor financial performance of these SACCOs.
Kimari (2013) did a study to determine the influence of lending risk management practices on financial performance of DTSs in Kenya. He found out that the majority of DTSs have in place credit risk management systems that ensure profitability of the services offered by the DTS to their clients. The study considered all the DTSs in Kenya.

Al- Mamun, Sazali, Malarvizhi, and Mariapun (2011) asserts that microfinance organizations from all over the world which give collateral free credit to low income earners and poor households have high loan repayment rates. Microfinance organizations survival and the ability to offer financial services to a huge number of low income earners and poor households greatly depends on repayment performance. This leads to provision of financial services with low interest rates. Therefore, this enables the SACCOs to meet financial efficiency and obtain loans from formal commercial organizations. Amini, Haghighat, and Fatemeh (2010) argue that the increased rate of non-performing loans is due to the existing economic conditions and high inflation rates. This in turn leads to poor financial performance of financial institutions where DTS are inclusive.

Gruening and Bratanovic (2000) defines non-performing loans as assets which are not generating any income while the SACCO Act defines non-performing loans as loan portfolio which are overdue for more than 90 days and are clearly indicated in the supplemental financial statement. Currently, there has been a rapid rise in the number of loans that have been classified as non-performing in most SACCOs in Kenya. Nonperforming loans ratio is measured by dividing nonperforming loans by the total loan portfolio. SASRA posits that SACCOs should maintain a ratio of 5% as the maximum and should be observed at any given time. The high level of non-performing loans has led to liquidity problem which has resulted in unplanned borrowing from banks at high interest rates. Consequently, this has led to high rate of loan loss provisioning which has resulted in reduced dividends for SACCO members, lack of trust in SACCOs and loss of board members.
Mugambi, Njeru, Member and Ondabu (2015) investigated how the repayment of loans affected financial performance of DTSs in Mount Kenya Region. The study focused on gross loan portfolio, loan delinquency, loan products and credit facility management. It was reported that the number of non-performing loan was high with a mean of 3.04. Based on this, the researcher concluded that there was a greater need for SACCOs to adopt measures that would contribute to the reduction in the number of non-performing loans. This will significantly influence the financial performance of the SACCOs.

A study by Justus, Dickson, Harrison and Maitai (2016) on credit information sharing and level of loan default in DTSs in Meru county Kenya there was a very strong relationship between credit information sharing and the level of loan default in DTSs. It was further revealed that when customer credit information was shared, there was enhanced transparency among financial institutions, prudent lending by SACCOs, and lowered level of risks in SACCOs. Sharing of customer credit information further cushioned SACCOs from high loan defaults because borrowers began repaying their loan on time thus there was reduced loan default, there was also reduced loan borrowing risks. Hence, credit referencing bureaus have significantly supported financial institutions in their endeavour to minimize loan defaults while undertaking their core business of lending. Further, Peter and David (2016) inquired into the influence of credit information system on loan default Rate in DTSs in Kericho County, Kenya revealed that the use of credit information systems had an influence on loan default that is 18.1% of the loan default was explained by credit risk assessment.

Zimba (2013) sought to determine success of loan appraisal procedures in the lending process. This study focused on identifying the levels of loan approvals and repayment of loans among commercial banks in Tanzania. The study revealed that appraising of loans on issuance and repayment is an important tool in commercial banks since it investigates the borrowers before issuing loans. If effectively adopted, it will support financial institutions to
overcome weaknesses experienced when selecting and choosing potential borrowers. This will contribute to reduced defaulting rates and lead to a rise in loan recovery rates. This study significantly differs from the present study because it was conducted in Tanzania which has different prevailing conditions compared to the area of study of the current study.

Edakasi & Apunyo (2011) conducted a study on the effect of interest rates on loan repayment using a case study approach. The study revealed that high interest rate significantly contributes to poor business performance among commercial banks. This study is also different from the present study because it was carried among commercial banks while this study focused on DTSs.

Mwaura (2005) inquired into the factors influencing the performance of DTSs in Kenya using a case study approach. The study revealed that lack of credit follow ups contributes to great financial gap and poor performance. This was mainly experienced in the back office services as compared to front office services.

Cassar, Crowley, and Wydick (2006) did a study on the effect of social capital on group loan repayment using experimental research design. He found that, traditional ideas of group lending yields high rates of loan repayment. This is due to leveraging local information in coming up with new groups which are self-selected and contain social homogeneous group members or borrowers. Through this, there is a joint liability which in turn leads to group lending success. Ngahu and Wagoki (2014) also conducted a study to determine the influence of group lending in minimizing defaulting of loans among microfinance institutions in Nakuru town Kenya. This study revealed that group administration was considered to be the greatest determinant of management of loan default rates in groups and amongst their members. Democracy in group administration encourages reduced rates of default in loan repayment. It further concluded the promotion of good governance in their leadership and
administration enhances management of loan default rates amongst their members. Loan management techniques have been argued to have a positive influence on financial performance of DTSs and other microfinance institutions. Financial performance in most studies has been based on perceptions of research participants. For instance, the studies by Mwaura (2005), Mugambi, Njeru, Member and Ondabu (2015), and Ndegwa, Waweru and Huka (2016) utilised participants perception to determine the effects of various variables on financial performance. Additionally, financial performance can be measured Nonperforming loans to total gross loans (NPL). Nonperforming loans is the gross loan as it is captured in the balance sheet but not just the amount overdue (total value of loan portfolio). Loan to deposit ratio (LDR) is a useful tool to establish the institution liquidity and also by extension it influences the institution’s profitability. Various studies have reported that various loan management techniques have positive effects on financial performance of financial institutions. For instance, a study by Ndegwa, Waweru and Huka (2016) reported that interest rate significantly influenced financial performance of MFIs in Imenti North sub-county. Another study by Moronya, Onditi and Nyagol (2016) reported that loan monitoring had a significant effect on financial performance of SACCOs in Kisii County. Ndungo, Olweny and Memba (2017) also reported that credit information sharing positively influenced the financial performance of licensed SACCOs in Kenya. While Kimotho and Gekara (2016) reported that credit appraisal positively influenced financial performance of MFIs in Baringo County.

There were seven DTSs operating in Kisii County (SASRA, 2016). These include; vision point, Gusii Mwalimu, Kenya achievers, Wakenya Pamoja, Mwalimu National, Afya and Egerton. Their performance in relation to loans and advance issuance between the year 2010 and 2013 was tremendously increasing. The trend of increment nationally was as follows; 123,492 million (2010), 147,727 million (2011), 167,598 million (2012) and 196,857 in the
year 2013. According to SASRA annual report (2015) Deposit Taking SACCOs had a total of 229,915 members, Kshs 7,401,904,243 assets, Kshs 3,860,734,172 total deposits and total loans of Kshs. 5,642,170,687. Therefore, all the above studies have not looked at the combined effect of loan management techniques in relation to financial performance among SACCOs. Majority of the studies have considered the techniques separately in commercial banks, outside Kisii County and outside Kenya. Additionally, the total amount of loans disbursed by DTSs operating in Kisii County has relatively increased in recent years. Therefore, there is need for DTSs to employ loan management techniques in order to improve on loan repayment rates. It is on this conclusion that the study investigated the effects of loan management techniques on financial performance of DTSs in Kisii County, Kenya.

1.2 Statement of the Problem

Loaning is one of the sources of income to the Deposit Taking Savings and Credit Cooperative Societies. On the other hand once loans have been disbursed to the borrowers they repay the loan whereby the repayment done contains part of the principal and the interest charged on the principal. SASRA annual report of 2015 reports that Deposit Taking SACCOs operating in Kisii County had a total of Kshs. 5,642,170,687 as loans (SASRA, 2015). After disbursement of the loan, the repayment can be either effective or ineffective hence the loans are classified as performing and non-performing loans. Loans which are not completely repaid are referred to as bad debts. When the loans have been classified as bad debts, then it means the lenders have gone to a great loss irrespective of insurance covers. Most of the clients of the DTSs are low income earners who usually access loans minus any collateral. This makes DTSs to disburse huge amount of loans to the increased number of borrowers who are willing to borrow minus any collateral. When it comes to the end of the financial year most DTSs experience the problem of large amount of non-performing loans which imply poor financial performance emanating from non-repayment of loans.
The Central Bank of Kenya (2016) through the report on Kenya Financial Sector Stability indicated that the ratio of nonperforming loans to gross loan was not constant. The volatility of this indicated that the increase was high as compared to the decrease. This was depicted in the rations from 2013 to 2015; 4.72% in the year 2013, 5.73% in 2014 and 5.12% in 2015. This was a clear indication that there was high percentage of nonperforming loans in DTS in the country. This can be depicted in the financial statements which SACCOs give at the end of any given financial year. To reduce the incidences of large number of nonperforming loans, DTSs need to adopt loan management techniques that can reduce the amount of nonperforming loans. With reduced non-performing loans and the increase in the number of performing loans, the financial performance of the DTSs will be impacted positively as will be reflected in the annual financial statements.

Njeru et al. (2015) asserted that repayment of loans is usually an obligation of the borrowers in order to ensure that SACCOs have adequate cash which will be able to meet the new loan borrower’s obligations. Equally on the other hand, there are huge credit risks being encountered by various DTSs which in turn need clear credit management policies which will reduce liquidity risk and improve financial performance of SACCOs. Continued increase in the number of non-performing loans that will culminate in poor financial performance of DTSs will in the long run contribute to closure of the DTSs due to inability to meet their obligations. Closure of DTSs will affect the economy negatively due to job losses and loss of capital by the investors. In response to the increase in the number of non-performing loans, DTSs have adopted various loan management techniques such as interest rates, loan follow ups, sharing customer credit information, loan appraisal and group lending that are aimed at reducing the number of non-performing loans. With few or nil non-performing loans, financial performance of DTSs is expected to improve. This will lead to increased level of profitability which will be demonstrated by an increase in dividends paid to shareholders, a
low volume of non-performing loans to total loans ratio and a healthy financial statement at the end of the financial year. However, there is a dearth of literature on the effect of the various loan management techniques adopted on financial performance of DTSs especially in the case of DTSs in Kisii County. Additionally, the combined effect of the various loan management techniques needs to be investigated to inform policy on the management of loans. It is on this premise that this study was carried out to determine the effect of loan management techniques on financial performance among DTSs in Kisii County, Kenya.

1.3 Objectives of the Study

1.3.1 General Objectives

This study sought to determine the effects of loan management techniques on financial performance of DTSs in Kisii County, Kenya.

1.3.2 Specific Objectives

i. To establish the effect of interest rate on financial performance of DTSs in Kisii County.

ii. To determine the effect of loan follow-ups techniques on financial performance of DTSs in Kisii County.

iii. To establish the effect of sharing of customer credit information techniques on financial performance of DTSs in Kisii County.

iv. To determine the effect of loan appraisal techniques on financial performance of DTSs in Kisii County.

v. To establish the effect of group lending techniques on financial performance of DTSs in Kisii County.
1.4 Research Hypotheses

H₀₁ Interest rate techniques have no statistical significant effect on financial performance of DTSs in Kisii County.

H₀₂ Loan follow-up techniques have no statistical significant effect on financial performance of DTSs in Kisii County.

H₀₃ Sharing customer credit information techniques have no statistical significant effect on financial performance of DTSs in Kisii County.

H₀₄ Loan appraisal techniques have no statistical significant effect on financial performance of DTSs in Kisii County.

H₀₅ Group lending techniques have no statistical significant effect on financial performance of DTSs in Kisii County.

1.5 Significance of the Study

Findings from this study will aid the management of DTSs in managing their non-performing loans. Additionally, the findings would enable DTSs managers to make internal loan management policies with an aim of improving their financial performance. Further, findings from this study if applied would contribute to improved loan performance which will lead to high profits hence high return on investment for shareholders. Lastly, this study would contribute to the body of knowledge in the field of loan management and financial management.

1.6 Scope of the Study

The study focused on the effect of loan management techniques on financial performance of DTSs in Kisii County. The study focused on the seven DTSs operating in Kisii County; Gusii Mwalimu, Kenya Achievers, Wakenya Pamoja, Egerton, Mwalimu National, Afya and Vision Point. DTSs in Kisii County were selected for study because despite the Central Bank of Kenya revealing that the ratio of gross non-performing loans to gross loans increased from
9.1 percent in December 2016 to 9.5 percent in March 2017 (CBK, 2017). DTSs in Kisii County were assumed to be stable since they generated NPL/Gross loans ratio of 2.74 which meant they were slightly stable. Therefore, there was need to determine whether the loan management techniques adopted influenced their financial performance.

1.7 Limitations of the Study
Due to the small sample available for the study, results may not be generalizable beyond the specific population from which the sample was drawn.

1.8 Assumptions of the Study
This study was conducted under the following assumptions; all respondents were willing to give information freely and honestly, all the respondents interpreted items in the research instrument properly, the sample considered in the study represented the entire population, the required approval was obtained in time and lastly the data which was collected and analyzed was representative of the entire population.
### 1.9 Operational Definition of Terms

**Bad debts:** This the amount of money owed to the creditor that is unlikely to be paid and the creditor is not willing to take action of collecting.

**Financial performance:** This is the subjective measure of a firms’ ability to derive revenue from its daily operations.

**Interest rate:** This is the money levied on the principal amount given to the borrower by the lender.

**Liquidity:** This is the ability of a deposit taking Sacco to quickly convert Investment portfolio to cash with no or little value.

**Likert scale:** It is a device for measurement which psychologically based which is used to measure attitude.

**Loan management techniques:** Business operations during the lifecycle of a loan, such as creation of the loan, disbursement of funds, allowing customers to skip a payment or payoff a loan fully.

**Nonperforming loans:** These are loans which have not been repaid for a period of 90 days.

**Performing loans:** These are loans which are repaid promptly.

**Returns:** This is the money gained after lending a loan and it is charged as interest rate.
**SACCO:**

Is a type of co-operative that focuses on pooling resources together from the members and then advance loans to the members and offer dividend on savings.

**Technique:**

It is the ability to implement procedures or methods so as to arrive at a desired outcome.
CHAPTER TWO
LITERATURE REVIEW

2.1 Theoretical Literature

This study was guided by the following theories.

2.1.1 Expectation Theory

This theory was proposed by Brink (2011). The theory looks at structure of an interest contract as a dependant of shorter term segments for determining the pricing and interest rate of longer maturities. The assumption of the theory is that the yields at higher maturities such as five, ten, or thirty years bonds corresponds exactly to future realized rates and are compounded from the yields of shorter maturities. For instance, a ten years bond simply means buying a five years bond in succession.

The theory also supposes that future rate expectations go hand in hand with future rates realized in time. It further considers market as a perfect predictor of future demand and supply. This theory is similar to the efficient market hypothesis since it assumes a perfect market environment in which future prices are determined using expectations. The theory further depicts that future interest rates on longer maturities depend on the previous rates. It is through this theory that investors can have a glance in comparing the yields offered by long-term, medium-term and short-term bonds. Different investment period have different yield where they are graphically presented they take different shapes and the shapes are as follows, short-term investment are lower than the long-term that is the line is sloping upwards. This curve is referred to as normal positive yield curve. This theory supports the upward sloping curve having that investors always expect high yields from the short-term rate in future. Hence long-term are higher as compared to short term rates. Similarly, pure intellectual exercise works on the same principles as expectation theory. The achievement of perfect results of this theory is limited since today’s predicted rates over different maturities exactly
match with the future realized spot rates. The shortcoming of the theory is that there are higher risks attached to longer maturities because of some internal factor not explained or predicted by pure expectations theory (Brink, 2011).

Redmond (2014) argues that the expectancy theory is a process theory. This theory gives motivation to people when doing something that they think their actions will lead to their desired outcome. This is highly related to the interest rate, group lending and appraisal loan management techniques. Chen et al. (2008) connoted that expectation theory takes into consideration the perceived association between performance and outcomes and this is achieved through calculation of anticipated outcomes. This is highly related to the loan management techniques and financial performance since loan management aims at improving the loan repayment which in turn leads to improved financial performance.

This theory is related to the study in the fact that when DTSs invest in lending money to the borrowers they expect to get high returns from the loans as interest which in turn will lead to high financial performance. This study aims at evaluating the effects of loan management techniques on financial performance of DTSs. Also interest rates is a cost attached to the borrowers on the money they borrow and can be used as either an incentive for the borrowers to borrow more or it can be raised to block the borrowers from taking more loans.

2.1.2 Liquidity Preference Theory

This theory was proposed by Keynes (1936). It sought to offer an explanation on the determination of interest rate based on the supply and demand for money. Liquidity preference theory is built on expectations theory since the expectations theory does not explain where short-term yield are lower than long-term yields thus the liquidity preference theory was developed to bring out the above scenario. This theory tries to look at the concept of risk and liquidity premium to the equation of coming up with future rates. The theory uses
mathematical formulas in defining why contract rates are substitutable for the most part for different maturities. Therefore, there is a risk factor involved in making the yield curve to slope upwards most of the time. Hence the yield curves always slopes upwards even if the interest rates is constant across the maturity period due to the inherent risk acquiring a debt instrument at a longer maturity.

Premium risks come as a result of lesser liquidity due to maturity interest rate contracts as well as high defaulting rate which in turn will delay the date of repayment. Lower liquidity comes as a result of inadequate market for long term instruments which in turn leads to higher interest rate on a consistent basis. The only difference of liquidity preference theory and pure expectation theory is that there is a small qualitative difference between long-term debt and short-term debt instruments which are quantified in the risk premium hence bringing into being higher rate of maturities most of the time. The risk premium of liquidity preference theory makes an assumption that investors have similar preferences which they understand easily and they choose to demand additional compensation at higher maturities at higher risk. Therefore, at different maturities they are not substitutable to each other depending on the role they play to the investor portfolio (Bibow, 2005).

Tushar (2016) reports that the liquidity preference theory considered the rate of interest as the payment for parting with liquidity. The requirement of money for various purposes is termed to as demand for money or liquidity preference. Therefore the supply for money to meet the liquidity preference is determined by interest rate. This theory addresses the interest rate loan management technique. This theory is related to the study addresses the independent variable of time and interest rates. It evaluates the relationship between of time and interest rates in relation to loan repayment and financial performance.
2.1.3 The Modern Portfolio Theory (MPT)

Modern portfolio theory was proposed by Markowitz (1952). It tries to exemplify the returns expected from a specific investment and guides in the selection of proportions of assets in a given institution. This theory is commonly used in financial institutions as an advanced mathematical modelling of finance. It encourages hedge diversification of assets against market risk which is unique to a specific company. On the other hand, MPT is a sophisticated investment decision approach which assists investors to easily classify, approximate and control both the type and amount of expected and return. It is also referred to as portfolio management theory. The cornerstone of the theory is the ability to quantify the association that exists risk and return. The theory assumes that investors should be compensated for assuming risk. On the concept of investment diversification, the theory aims at selecting a collection of investment assets that has collectively lower risk than any individual asset. Through this combination, there is positive correlation even some assets in the combination may have negative returns hence MPT makes an assumption that investors are rational and markets are efficient.

MPT looks at return as a motivating factor to investors and it classifies returns as realized returns and expected return. Expected return is just a prediction which may or may not happen but realized returns is what has been achieved and can be used to plan for the future cash flows in terms of dividends, interest, bonus, capital gains available to the investor. This theory assumes that there is usage of normal distributions to model returns and there is also neglecting of taxes and transaction fees (Omisore et al., 2012).

This is related to the study in such way that, it explains more about returns on investment where by DTSs equally invests by loan portfolios as assets with aim of getting returns from the investment. In such kind of investment, there are risks involved which in turn affect the financial performance of the DTS. This theory is relevant to the study since it focuses on the
financial performance of financial institutions while the study equally aims at determining the effect of loan management techniques on financial performance of DTSs in Kisii County.

2.2 Empirical Literature

2.2.1 Financial Performance of DTSs

Managers of various organizations including the one in DTSs should have the ability to evaluate financial position when choosing a supplier, considering a strategic partnership and when trying to find out how much money the organization is giving out as credit to a customer. In one way or another, organizations appear financially successful irrespective of structural problems with the way they are financed and managed. The following ratios will be used to measure the financial performance of the DTSs operating in Kisii County:

Nonperforming loans to total gross loans (NPL). Nonperforming loans are those loans where the payment of the principal plus interest is past due by 90 days or more while total gross loans are the total amount of money which has been given out as credit to the borrowers in any given period by the lending institution. Nonperforming loans is the gross loan as it is captured in the balance sheet but not just the amount overdue (total value of loan portfolio). The ratio is calculated by taking nonperforming loans as the numerator (NPLs) and the total gross loans are taken as the denominator. The NPL to total gross loans is often used as a proxy for asset quality and is intended to identify problems with asset quality in the loan portfolio (International Monetary Fund, 2013).

Loan to deposit ratio (LDR) is a useful tool to establish the institution liquidity and also by extension it influences the institution’s profitability. Profit is based on interest rate against the deposits therefore profits are generated through the positive difference between interest of loans and interest on deposits. Optimal return in DTS can only be realized if the LDR ratio is too low (Dhanuskodi, 2014).
In most studies, financial performance is based on research participant’s perception of their organizations financial performance as may be influenced by different factors. For instance, the studies by Mwaura (2005), Mugambi, Njeru, Member and Ondabu (2015), and Ndegwa, Waweru and Huka (2016) utilised participants perception to determine the effects of various variables on financial performance. Various studies have reported that various loan management techniques have positive effects on financial performance of financial institutions. For instance, a study by Ndegwa, Waweru and Huka (2016) reported that interest rate significantly influenced financial performance of MFIs in Imenti North sub-county. Another study by Moronya, Onditi and Nyagol (2016) reported that loan monitoring had a significant effect on financial performance of SACCOs in Kisii County. Ndungo, Olweny and Memba (2017) also reported that credit information sharing positively influenced the financial performance of licensed SACCOs in Kenya. While Kimotho and Gekara (2016) reported that credit appraisal positively influenced financial performance of MFIs in Baringo County.

2.2.2 Loan Management Techniques
Management of loans in an effective manner is fundamental to the SACCO’s safety and soundness. This involves the process of managing and controlling risks involved in loan portfolio process. According to Asiedu –Mante (2011), loan management is the process of coming up with formal legitimate policies and procedures that enables authorities to grant loans and also the loans are acquired by the right persons. If appropriate credit is granted to viable activities or projects, then this guarantees credit recoverability. Hence, this comes as a result of adequate flow of management information within the organization or DTSs to monitor and follow up of the credit activity. The Comptroller of the Currency (OCC) (2010) defines loan management as the process through which risks involved in credit process is managed and controlled. It can also be defined as efficient blending of credit policy variables
with an aim of ensuring prompt recovering of loans granted to customers. Kioko (2008) investigated the credit risk management techniques of unsecured bank loans of commercial banks in Kenya. The study revealed that credit appraisal processes were very objective to loan management. On the issue of appraisal of the borrowers, the six Cs were used out of which capacity was the most used followed by character. The study further found out that financial performance was highly correlated to improved loan appraisals.

2.2.2.1 Effect of Interest Rate on Financial Performance of DTSs

Loans acquired to be put in long term capital investments are usually repaid in a series of monthly, semi-annual and annual repayments. The amount to be paid is usually obtained using various ways; equal total payments per period (amortization), equal payments over specified period over a specified time period with a balloon payment due at the end to repay the balance and equal principal payments per time period. When the first method is used, the payment is inclusive of accrued interest on the unpaid balance together with some principal. The second way puts into consideration of accrued interest on the unpaid balance plus equal amount of principal and lastly the balloon method is meant to reduce the payment period (Gutierrez & Dalsted, 2012).

Interest can be categorized as either short-term or long term. Long term loans have interest rates which seem to be constant within the repayment period while the short term loans keeps on changing from time to time. Generally, interest rates for long-term loans tend to be lower as compared to shorter loans which are slightly higher. Traditional finance theory puts it clear that as the loan size expands interest rate tend to rise in order to accommodate the increased risks associated with the loan. However, interest rates in local banks are well explained by the characteristics of the borrower. However, for international banks, interest rates are determined by considering the characteristics of operational factors. Interest rates are a major
concern to both lenders and borrowers in any given financial institutions. Increased interest rates in financial institutions results to reduced customer borrowing and loan repayment capacity leading to increased number of loan defaulters (Edakasi & Apunyo, 2011).

The potential impact of interest rates on financial performance has been a great concern of the policy makers in various financial institutions and bankers. The earnings of DTSs and other financial institutions are greatly affected by uncertain changes in interest rates. Therefore, interest risk comes as a result of exposing the financial institutions profitability to volatile interest rates. Hence DTSs have a great challenge since they provide financial services to the poor and take care of their costs while aiming at escaping bankruptcy (Mwangi, 2014). The firm’s financial performance is highly influenced with risk and growth. The market value is conditioned with the company’s results; therefore the company market value can be changed by the level of risk exposure (Appiah, 2011).

Kariuki and Ngahu (2016) conducted a study on effect of interest rates on loan performance of Microfinance Institutions in Naivasha Sub-County, Kenya. Using survey research design, he connoted that there was a strong relationship between loan repayment and the interest rates charged by SACCOs. The study further revealed that the interest rates charged on the borrowed loan lead to loan defaulting which in turn leads to loan non-performance. Customers also default in loan repayment because short term loans attract higher interest rates as compared to long term loans (Kariuki & Ngahu, 2016).

Ndegwa, Waweru and Huka (2016) conducted a study that sought to determine the influence of interest rate on financial performance of Micro Financial Institutions (MFIS) in Imenti North Sub-county. This study adopted a descriptive survey research design. The study consisted of 42 correspondents from the 14 MFIS operating in Imenti North Sub County. Correlation and regression results revealed that interest charged by MFIs significantly
influenced their financial performance. To ensure uptake of loans by DTSs, the DTSs should charge interest rates within the range being charged by commercial banks.

Mwangi (2014) inquired into the influence of lending rates on financial performance MFIs in Kenya. Multivariate regression model was used to analyze the data. It was reported that the relationship between lending rates and financial performance of MFIs was strong and positive. This study further revealed that MFIs are mainly established to serve the poor populace by giving them cheaper credit. However, due to high interest rates charged by MFIs hinder the poor from accessing credit which has resulted in poor financial performance of MFIs due to low uptake of loans.

Ridder (2010) conducted a study to determine whether the interest rates that were charged by MFIs were too high for the poor or not. It was revealed that due to high operational costs, MFIs are forced to charge high interest rates so that they can offset their expenses. However, Ridder (2010) argues that high interest rates work against the core purpose of establishing DTSs which is to serve the poor. The study concluded that the high interest rates are not a true reflection of the profitability of the MFIs since the money is used to offset the high operational costs. Therefore, the present study seeks to provide empirical evidence on the relationship between interest rate charged and financial performance of DTSs in Kisii County.

Chikalipah (2014) conducted a study to determine the determinants of MFIs lending interest rates in sub-Saharan Africa. This study utilized the unbalanced panel data comprising of 292 MFIs drawn from 34 Sub-Saharan African (SSA) countries between 2003 and 2011. Findings revealed that the following factors influence lending rates in SSA; finance costs, operating expenses, return on assets and inflation. Findings in this study did not reveal whether lending
rates influenced MFIs financial performance or not. Therefore, there is need to conduct a study to determine the effect of interest rates on the financial performance of DTSs.

A study conducted by Onyekachi and Okoye (2013) sought to determine the influence of lending rate on the financial performance of Nigerian Deposit Money Banks between 2000 and 2010. To arrive at the conclusions, data econometrics and time series analysis were utilized. It was reported that bank lending rate positively and significantly influenced the financial performance of Nigerian deposit money banks.

2.2.2.2 Effect of Loan Follow-Ups on Financial Performance of DTSs

Frequent follow ups and monitoring helps financial institutions to address the risks. It also helps to control breaches, anomalies and high-risk activities at an early stage of loan portfolio hence leading to soundness of the financial institutions and safety when it becomes to loan performance (Maithya, 2017). Loan monitoring framework scrutinizes all electronic activity to detect breaches and automatically alerts the relevant personnel to take action. Continuous monitoring enables stakeholders to quickly determine through reviewing electronic records, any activities or conditions that require attention before they become problems (PWC, 2012).

Osei (2015) argues that proper monitoring and follow-up exercise are undertaken by SACCOs to enable the borrowers to put the loans in the intended purpose and hence the repayment of the loan to be prompt. On the other hand inadequate follow ups lead high incidences of loan defaulting hence poor loan performance which further leads to poor financial performance of DTSs.

Edgar (2012) reports that delayed repayment of loans is currently a challenging phenomenon in SACCOS. From the study the researcher carried out in Tanzania, it indicated that this was brought about by inadequate loan follow-ups by the management. Usman (2002) connoted that monitoring of loan portfolio is totally a very crucial activity. The effectiveness of
performing depends on the size of the SACCO or financial institution and the number of branches the institution has, the market variation and delegation of the authority. This monitoring can be done using continuity quality control. This is done using credit committee or by branch manager through continuous review. This special personnel look at reports on quality lending, quality of individual loans and effectiveness of coordination within the department. The specialists should do detailed work by identifying and following up problematic loans also assisting weaker lending officers to enable efficient communication among financial institution. However, whether as a specialist staff or as an internal auditor, he will be expected to do most of the detailed work, identify and follow problem loans, supervise and assist weaker lending officers to ensure adequate communication between various sections of the bank.

Loan follow ups by loan field officers makes loan costs to rise because of increased costs of transport to the rural areas and opportunity costs (Olagunju and Adeyemo, 2007). This may lead to poor financial performance of DTSs. Additionally, Kariuki (2010) posits that frequent loan follow-ups is expensive to the lenders and therefore there is need to formulate strict loan collection policies and this will cater for slow and non-loan payers hence improving loan repayment levels. The strict loan collection policies besides leading to improved loan repayment, it will also contribute to increased financial performance of financial institutions. DTSs should be in a position to determine borrowers’ risk by making sure that borrowers have repaid their loans as stipulated in the loan contract (Stiglitz and Weiss, 2007).

Moronya, Onditi and Nyagol (2016) carried out a study with the aim of determining the influence of lending risk management practices on the financial performance of 32 SACCOs in Kisii County. Using a regression model, it was revealed that credit monitoring had a positive and significant impact on financial performance of the SACCOs.
Lagat et al. (2013) investigated the effect of adoption of various credit risk management practices among Savings and Credit Co-operatives in Kenya. Among the credit management practices investigated was credit monitoring and its influence on performance of the lending portfolio. Results revealed that credit monitoring had a significant effect on performance of the lending portfolio. Lending portfolio is a strong predictor of financial performance therefore it can be concluded that credit monitoring influences financial performance of SACCOs.

Maithya (2017) inquired into the effects of loan policies on financial performance of Church based savings and credit cooperative societies in Kenya. One of the focuses of the study was the effect of loan recovery policy which includes loan follow up for recovery using multiple regression analysis. The study revealed that loan recovery policy has a significant effect on return on asset of the SACCOs, this is because an increase in the adoption of loan recovery policy increases return on investment by 0.721. Therefore, this implied that there was a very strong relationship between the adoption of loan recovery policy by the SACCO and its financial performance. Fofack (2005) argued that if no proper follow-up is conducted, the defaulted loan will be a cost to the SACCO because of delayed interest, huge sums involved in recovery and other associated administrative costs in terms of follow-up. These costs will affect the capital, assets, earnings and liquidity of the SACCO thus negatively affecting its financial performance. Thus, the lack of adequate knowledge on how to deal with the dynamics of loan follow-up and recovery will hamper the success of the SACCO and thus contribute to poor financial performance (Fleifel, 2009).
2.2.2.3 The Effect of Sharing of Customer Credit Information on Financial Performance of DTSs

Credit information sharing is the act of providing customers credit information to other third parties such as financial institutions and credit bureaus. This information can be provided to the credit bureaus and assured accessibility is used if the information is accurate and provided in time. In Kenya, credit information sharing came into being fully in the year 2010. For the case of SACCOs where DTSs are classified, credit information sharing was launched in 2011 and this has resulted in great achievements in terms of defaulter’s reduction and improved firm financial performance.

This concept and practice has greatly attributed to positive correlation of financial performance of DTS and credit information sharing. All the above can be achieved if the DTS do proper loan appraisals with an aim of improving SACCO performance. This reduces financial transactions among lenders and borrowers. During the evaluation, the lender gathers information from the first hand sources of information and other lenders through credit bureaus concerning the applicant (Chemitei, 2016). According to Munyiri and Wekesa (2017), loan default significantly influences the growth of SACCOs. Therefore, there is need for SACCO management to register SACCOs with the Credit Reference Bureau to enhance loan repayment due to tracking of the borrower’s credit records.

Credit information sharing greatly reduces costs to the borrowers which might be shifted by lenders to the borrowers as an operational cost of gathering the information (Sutherland, 2015). This also creates an enabling environment for creation of longstanding relationships and also formation of new contracting relationships with other members of the bureau. Also credit information sharing reveals long tracking records in relation to recent serious delinquencies. This makes the borrowers to create contracts with other lenders outside a part
from the current lenders and those with bad credit history will be forced to remain with the current existing lender.

Borrower credit sharing systems are centrally placed to enable easy accessibility of credit information of the borrower. Through this, there is an increase in aggregate lending and reduced delinquencies (Jappelli & Pagano, 2002). On the side of lenders financial statements gives detailed information in relation to credit worthiness of the lenders but in this case, private companies usually decline in giving the audited financial statements and this is costly (Minnis & Sutherland, 2014). Credit information sharing enables lenders to exchange information with each other through an intermediary. This substitutes sophisticated financial reporting in reducing information asymmetries between the lender and the borrower (Cassar et al., 2014).

In this regime of credit information sharing, lenders could less likely continue providing credit to the borrowers who are problematic in loan repayment. This gives alerts in advance on the borrowers who will default on their loan repayment obligations. Non-performing loans needs careful scrutiny and visits to borrowers’ premises which in turn leads to reducing the human and financial resources that can be deployed elsewhere (Doblas-Madrid, & Minetti, 2013).

A study by Kioko and Wario (2014) on the effect of sharing information about customer credit history and performance of licensed DTSs businesses in Kenya revealed that the sharing of customer information about their credit history had a significant impact on the performance of the DTSs in Kenya.

Ndungo, Olweny, and Memba (2017) conducted a study to determine the effect of credit information sharing on financial performance of SACCOs in Kenya. This study used a descriptive research design that utilised both qualitative and quantitative data (correlation and
regression analysis) to find answers to the research question. Findings revealed that credit information sharing had a positive effect on financial performance of licensed SACCOs in Kenya. This study was specific to information shared with the credit reference bureau and was conducted in a different context from the current study.

Maina et al. (2016) sought to determine the effect of credit information sharing on level of loan default in DTSs in Meru County using a descriptive research design. Findings reported that there was a strong relationship between credit reports, credit scoring and level of loan default in SACCOs. With reduced loan default, there is increased financial performance of deposit taking SACCOs. Therefore, there is need for SACCOs to adopt regulations governing credit information sharing with the aim of reducing loan default. This study was different from the current study because it focused on the effect of credit information sharing on loan default and was conducted in a different context. Therefore, there is need to gather empirical evidence on the effect of customer credit information sharing on financial performance of DTSs in Kisii County.

2.2.2.4 The Effect of Loan Appraisal on Financial Performance of DTSs

Borrowers’ appraisal evaluates the financial conditions and capability of the borrower to service the facility within the specified period (Osei, 2015). Lending is a core function of any financial institution hence minus proper appraisal of the borrowers; it may automatically lead to credit risk. Therefore, before the financial institution lends money to the borrowers, it should assess the capability of borrower to repay the loan. This can be done by considering factors like character, capacity, cash, collateral, conditions and control. The study also found that collateral as one of the requirement for credit appraisal was a great challenge and it made most borrowers to seek credit from other alternative sources. The appraisal made the
borrowers to use the loans for the intended purpose and this alleviates the risk of loan defaulting.

Score Organization (2013) reports that financial institutions usually wish to lend money to borrowers with an aim of making profit. Equally, it’s their wish that they should lend to borrowers who are able to repay the loan on time and in full. This can be done using five C’s where this was to help the lender to determine the overall risk of the loan. All the above factors should be looked into concurrently since they are all dependent to each other. The five C’s include; capacity, capital, collateral, conditions, and character. Character looks into the business owner’s personal history that is credit history, work experience and education background. It also looks into other issues like honest, ethical and fairness of the borrower hence the difference between the ability to repay and willingness to repay the loan becomes the cornerstone of character.

Capacity is evaluated by several components, they include cash flow, payment history and contingent sources for repayment. Capital as a factor looks into the amount of money the borrower has saved before applying for loans. For instance, a financial institution should set a certain percentage which the borrower will save in their account as a guarantee before loan disbursement. Collateral on the other hand means what one should give as a security before being guaranteed for a loan. This is considered as a secondary source of repayments since SACCOs want cash to repay the loan, not sale of business assets. The last factor which is condition, looks at the general economic conditions and the purpose of the loan. This factor looks into strength and number of competitors, size and attractiveness of the market where the borrower is going to invest, customer or supplier concentration, length of the business and political forces that will impact the business. Confidence comes as a factor from the side of the lender by looking at the capability of the borrower to address the five C’s.
Delayed repayment of loans is currently a challenging phenomenon in SACCOs (Edgar, 2012). This has resulted from poor loan appraisals in relation to loan fraud cases, inadequate collateral verification and overcapitalization of the borrowers. Boldizzoni (2008) defined loan appraisal as an evaluation by a financial institution for an application or request for funds. The appraisal takes into considerations purpose for the loan. Need genuineness, capacity to repay, quantum of loan and loan security. This is done with an aim of minimizing loan losses through scrutiny by loan approval officers to ensure that non-deserving customers do not access the loans. All the above will be achieved through strict administering of loan collection procedures. Latifee (2006) reports that loan collection procedures are stipulated legal rules and regulations applied to ensure that there is recovery of past due loan amounts from the clients. Loan collection procedures can be implemented by applying existing laws like the third party collection agencies whereby the third party can be involved in loan collection process. Horcher (2005) argues that credit choice and disbursement should focus on careful assessment of the danger states of the loaning and the qualities of the borrower. Some of the things to consider when doing evaluation include; utilization of subjective or casual methodologies, reasonably mind and blogging borrowers for the utilization of mechanized reproduction models.

Udoh (2008) argues that loan monitoring is a very important activity because it exposes change with both time and movement of underlying variables. Poor loan repayment has come into being because of poor loan enforcement of credit contracts, poor performance on loan recovery and also due to government interference.

SACCOs and other financial organization should be at a position of matching the borrowers’ needs in order to make it easier for clients to access loans and also create conducive conditions for the clients to repay the loan in time and fully meet their obligations (George, 2008). Appiah (2011) reports that in India, most borrowers were multiple borrowers and the
interest rates were up to 60% due to this excessive pressure of high interest rates was applied which in turn led to high loan recovery. Due to this excessive profits charged by the lenders, loan diversion was rampant which in turn brings about a lot of loan indebtedness. On the other hand, loan appraisal was based on the decisions of the loan officers’ experience and feeling over the market at that point in time.

Moti et al. (2013) argues that before advancing loan to borrowers, SACCOs should conduct loan appraisal. This is because loan appraisal is an important activity since it considers the character, capacity, collateral, capital and conditions of the client which will give the in depth of the customer with an aim of minimizing loan defaults. Poor evaluation of the client’s ability to repay the loan usually leads to high rates of loan defaults. Ratton (2003) argues that the use of informal and inconsistence procedures in loan appraisal always leads to high incidences of loan default risk therefore leading to poor financial performance of DTSs. Some lending procedure requires the lending firms to identify those borrowers who are likely to default from which they come up with policies or procedure which are aimed at mitigating the incidences of loan defaulting, which can lead to improved financial performance of DTSs because of good loan repayment.

Moronya, Onditi and Nyagol (2016) investigated the influence of lending risk management practices on the financial performance of SACCOs in Kisii County. Findings revealed that customer appraisal significantly and positively influenced financial performance of SACCOs in Kisii County.

Lagat et al. (2013) conducted a study that sought to determine the effect of adoption of various credit risk management practices among Savings and Credit Co-operatives in Kenya. Among the credit management practices investigated was credit analysis and how it affects performance of the lending portfolio. Results revealed that credit monitoring had a significant
effect on performance of the lending portfolio resulting in an effect on the financial performance of Savings and Credit Co-operatives.

Kalu, Shieler and Amu (2018) investigated the association between lending risk management techniques and financial performance MFIs in Kampala, Uganda. Among other factors, the study investigated the influence of lending risk appraisal on financial performance of three licensed MFIs in Kampala: Finca Uganda Ltd, Pride Microfinance Ltd, and UGAFODE Microfinance. To determine the relationship between credit risk appraisals, the study utilised Pearson linear correlation coefficient. Findings showed that credit risk appraisal had a strong positive relationship on financial performance of MFIs.

Kimotho and Gekara (2016) revealed that commercial banks utilised credit appraisal analysis frequently which led to a positive relationship between credit appraisal and financial performance of commercial banks. Additionally, Kurui and Aquilars (2012) conducted a study to determine the association between client appraisal and loan performance among MFIs in Baringo County. Results reported client appraisal and loan performance were positively correlated. With enhanced loan performance is enhanced financial performance of the MFIs.

A study by Kibui and Moronge (2014) sought to determine how lending risk management strategies affected financial performance of Harambee SACCO. Among the credit risk management strategies, the study focused on client appraisal strategies. The study adopted a case study of Harambee SACCO in which all the 178 credit officers were targeted. Results revealed that there was a positive association between client appraisal strategies and financial performance of Harambee SACCO. This study is different from the present study because it was conducted in a different context and only focused on one SACCO unlike the current study that focused on seven DTSs.
2.2.2.5 Effect of Group Lending on Financial Performance of DTSs

Group lending is assured of joint liability when funding poor borrowers; this in turn replaces the need for physical collateral. This strategy works well in rural areas compared to urban areas because social networks are denser in rural areas compared to urban areas which equally results to high social collateral. This has been very effective since it incentivizes group members to use their social ties to screen, monitor, and enforce loan repayment on their peers. This enables the group members to coordinate their repayment decisions and cooperate for their mutual benefit. In this case, each and every group borrower respects his or her internal and external ties and therefore the borrower commits herself or himself to repay the loan so that their ties cannot be compromised. Hence, failure to meet the group loan agreements may lead to loss of reputation within the borrower’s network. This in turn, influences the effectiveness of social capital as disciplining device (Benjamin et al., 2013)

Breza (2007) conducted a study on peer effects on loan repayment. The study revealed that even without the joint liability the peer group decision to repay the loan had a significant effect on individual’s own repayment techniques. These commitment results from the social connections within the borrower centre. This becomes effective due to the frequent group meetings which in turn reduces the incidences of any individual default. Therefore, it can be argued that peer effects may actually improve repayment rates and act as stabilizing force.

Carpena et al. (2010) reported that once borrowers take loans as a group, it leads to formation of social capital which develops gradually as the group coexists. This further leads to better business thus leading to low loan defaulting. Improved risk-sharing plays a major role in group-lending as compared to joint-liability as this the currently rationale which is employed in microfinance institutions where DTSs are included. This has been maintained through loan repayment in group meetings irrespective of translating this from joint to individual liability
contracts. Armendariz and Morduch (2007) asserts that repeated interactions, regular meetings and common credits goals creates sustained economic ties and cooperative behaviour among the participants or borrowers. On the other hand, group lending has various setbacks whereby the idea of social sanctions has led to adverse empirical backing.

Namuyaga (2009) conducted a study on client perception of loan default management in group lending. This was a comparative study of FINCA (U) Ltd and Midescs in Gombe Sub County, Wakiso District. The study revealed that group guarantee serves as a self-policing mechanism to ensure timely repayment of loans. This forms a strong incentive for loan repayment which creates social collateral as an anti-loan default. The study further indicated that group lending will be declared irrelevant in future since group based lending relies majorly on borrowers who lack alternative credit sources thus high loan repayments are only attained through repeat or roll over loans.

Fischer (2010) using experimental research design found that group liability stimulates risk taking under limited information whereby borrowers’ free-ride on the co-borrowers’ insurance. This leads to mitigation of the deterioration of the reputation of the group members due to upfront approval for each other’s projects. Giné et al. (2010) using experiments in a Peruvian market found that joint liability stimulates risk-taking at least when borrowers understand the investment of their co-borrowers. Self-selective of borrowers to groups brings about negative effect on risk-taking due to assortative matching. Carpena et al. (2010) using quasi-experiment found that an Indian MFI switched from individual to joint-liability contract because in joint liability contracts significantly improved loan repayments rates.

Group lending is so advantageous to both lenders and borrowers (Tundui and Tundui, 2008). This is because it helps the borrowers to acquire loans without tangible evidence and the
screening of borrowers as a result of asymmetry information. It also helps the lenders to identify and classify risks involved in lending by testing the cases of diversion. This enhances loan enforcement in members’ repayment, reduces transaction costs to the lenders and provides insurance to the borrowers. From the peer increases, loan repayment however causes humiliation, stigmatization and social tensions in local communities.

A study conducted by Cassar, Crowley and Wydick (2006) on the effect of social capital on group loan repayment focusing on field experiments in South Africa and Armenia where participants were exposed to trust and microfinance games revealed that personal trust between group members and homogeneity led to improved loan repayment thus leading to improved financial performance of MFIs. While another study by Kibisu, Memba and Mulyungi (2015) on the success of group lending utilized by the Youth Enterprise Development Fund in financing Group Owned agribased Micro and Small Enterprises in Kisii County, Kenya. It was reported that group lending contributed to a reduction in the need for collaterals for loans since group lending ensured the loans were utilised for the purpose they were issued. This therefore led to enhanced repayment because of generated profits from the SMEs. This study is however different from the current study because it focuses on the Youth Enterprise Fund which is not a DTSs yet still it informs the study that group lending can influence loan repayment which will further influence the financial performance of the lender.

Armendáriz and Morduch (2000) conducted a study on microfinance beyond group lending revealed that due to joint liability; group members monitor each other to ensure prompt loan repayment. This therefore leads to minimal loan defaults. Minimal loan defaults implies that financial institutions are receiving their capital plus interests therefore leading to increased profits thus improved financial performance.
Kadongo and Kendi (2013) investigated individual lending versus group lending. The study aimed at determining which among the two models would contribute to minimized loan defaults. The study revealed that there is higher loan delinquency on individual lending compared to group lending. Therefore, with group lending, financial institutions will generate more interest from its loans compared to individual lending.

2.3 Summary of Research Gaps

Based on the research conducted by Gutierrez & Dalsted (2012) on the interest rates and loan repayment, the study did not focus on the issue of internal loan management techniques which can be employed to ensure the interest plus principal has been paid fully by the borrower. Another study by Edakasi and Apunyo (2011) did not focus on the effect of loan repayment and financial performance of SACCOs. Therefore, there is need to gather empirical data on the effects of interest rates on financial performance of DTSs. Chemitei (2016) conducted a study on sharing of credit information as a loan management technique. This study did not focus on proper appraisal of loans. Additionally, a study by Osei (2015) on proper and adequate loan appraisal did not address how the indicators investigated could be utilised to minimize loan defaulting. Therefore, there is need to gather empirical data on effects of loan appraisal on financial performance of DTSs. Postelnic et al. (2013) conducted a study on group lending as a loan management technique. This study did not discuss the relationship between group lending and financial performance of financial institutions especially DTSs, therefore there is need to conduct a study that can bring out the effects of group lending on financial performance of DTSs.

The above studies reveal that loan management techniques have been investigated but in most cases they have not been used to measure their effect on financial performance. Further, they have been used in different contexts such as commercial banks or DTSs located in different places from the focus of the current study. This study reviewed literature on a
number of studies in Kenya, Africa and across the world. The studies explained the various loan management techniques in financial institutions. As much as the studies focused on various loan management techniques, the themes were handled in isolation and not specifically used to determine the relationship between the variables (loan management techniques) and financial performance therefore, significantly differing from the focus of the current study which specifically identified five loan management techniques and determined their combined effect on financial performance of DTSs using a combined effect model. Other studies focused on variables that have been utilised in this study, but only focused on commercial banks. Therefore, according to the reviewed studies, there is a dearth of literature focusing on the effect of loan management techniques on financial performance of DTSs in Kisii County.
2.4 Conceptual Framework

The research gaps can be summarised as in figure 2.1.

<table>
<thead>
<tr>
<th>Independent Variable: Loan Management Techniques</th>
<th>Dependent Variable: Financial Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interest rate</strong></td>
<td></td>
</tr>
<tr>
<td>• Percentage of interest charged</td>
<td></td>
</tr>
<tr>
<td>• Interest charged as per CB cap</td>
<td></td>
</tr>
<tr>
<td><strong>Loan follow-ups</strong></td>
<td></td>
</tr>
<tr>
<td>• Calls to loan defaulters</td>
<td></td>
</tr>
<tr>
<td>• Visitation to loan defaulters</td>
<td></td>
</tr>
<tr>
<td>• Warning letters to loan defaulters</td>
<td></td>
</tr>
<tr>
<td><strong>Sharing of customers credit information</strong></td>
<td></td>
</tr>
<tr>
<td>• Customers listed in CRB</td>
<td></td>
</tr>
<tr>
<td>• Number of times DTSs shares customer information with CRB</td>
<td></td>
</tr>
<tr>
<td><strong>Loan appraisal</strong></td>
<td></td>
</tr>
<tr>
<td>• Volume of customer share deposit used</td>
<td></td>
</tr>
<tr>
<td>• Procedure for loan appraisal</td>
<td></td>
</tr>
<tr>
<td><strong>Group lending</strong></td>
<td></td>
</tr>
<tr>
<td>• Number of groups obtaining loans</td>
<td></td>
</tr>
<tr>
<td>• Joint liability</td>
<td></td>
</tr>
<tr>
<td><strong>Financial Performance</strong></td>
<td></td>
</tr>
<tr>
<td>• Volume of nonperforming loans to total loans ratio</td>
<td></td>
</tr>
<tr>
<td>• Level of Profitability</td>
<td></td>
</tr>
<tr>
<td>• EPS to shareholders</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 2.1: Conceptual Framework*

*Source: Researcher (2018)*
Figure 2.1 shows the framework that was utilised to conceptualize the study. The figure shows independent variables that is loan management techniques (interest rate, loan follow-ups, sharing of customers credit information, loan appraisal and group lending) on the left side which have direct influence on the dependent variable on the right that is financial performance (volume of nonperforming loans to total loans ration, level of profitability and EPS to shareholder) of the DTSs.

Interest rate charged by DTSs is expressed as a percentage of the principal amount that is issued to customers and may be based on reducing balance or fixed depending on the contract that was signed. The interest rate charged on most occasions, depending on the Kenya finance bill of 2017 must be based on the Central Bank base lending rate. Variables that may be considered when setting interest rate include customer characteristics that are determined through loan appraisal, amount of loan issued, period of loan repayment, loan climate, type of loan product, and the current economic climate in the country. Loan follow-ups details the strategies that DTSs adopt to ensure clients continue to repay their loans as agreed in the loan contract. Strategies adopted include making calls or sending text messages, and visiting the clients in their homes, businesses or at their workplace. This on most occasions prompts quick repayment of the loans. It has however, been argued that sometimes the cost incurred in loan follow-ups is higher thus limiting profitability of the financial institutions.

Sharing customer credit information especially with the credit reference bureau can have a significant influence on loan repayment and loan appraisal process. Customers don’t want to be listed in the CRB website because this will affect their future credit rating. Additionally, financial institutions when conducting loan appraisal depend so much on CRB list, if a loan applicant is listed on the CRB list, it is assumed this is a client with a high ability to default, thus supporting DTSs to avoid bad debtors subsequently reducing the number of non-performing loans. DTSs should continuously send a list of defaulters to CRB so that other
DTSs don’t issue loans to such perennial defaulters. Loan appraisal focuses on determining risk and good investment. Issues to be considered are the procedures adopted by the DTSs, loans issued, liquidity position of the DTSs, client collateral presented, and client evaluation to determine their ability to repay the loan plus interest. Group lending seeks to utilize group harmony to ensure enhanced repayment of loans. Factors that can be considered include joint liability, utilising social ties to perform client appraisal, using group members to coordinate loan repayment, and supporting frequent group meetings during repayment period.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research Design
This study used a descriptive survey research design since it investigated the effects of loan management techniques on financial performance of DTSs. Descriptive survey design was suitable to this kind of study because survey design is applicable in many scientific disciplines particularly social sciences. The design is also used when the study aims at obtaining a general overview of the entire population under investigation. It also allows for collection of information about people’s feelings, opinions and thoughts which were generalizable to the entire population (Shuttleworth, 2008). This design also allows researchers to gather data through the use of questionnaires and utilization of secondary data (Orodho, 2005). To ensure adequate responses to the research questions, the study utilised the entire target population for the study.

3.2 Study Area
This study covered Kisii County at large, that is all the nine sub counties where the Deposit Taking Savings and Credit Cooperative Societies operated. Kisii County is county number 45 out of 47 counties according to the new system of governance as enshrined in the 2010 constitution. Kisii County borders Nyamira County to the East, Narok County to the South and Homabay and Migori counties to the West. It lies between latitude 0 30’and 1 0’South and longitude 34 38’and 35 0’East.

The DTSs which were operating in Kisii County during the period of this study were; Gusii Mwalimu SACCO, Kenya Achievers SACCO, Wakenya Pamoja SACCO, Egerton SACCO, Mwalimu National SACCO, Afya SACCO and Vision Point SACCO as listed in appendix IV (SASRA, 2017). Additionally, the study focused on the following loan management
techniques; interest rates, loan follow-up, sharing customer credit information, loan appraisal and group lending.

3.3 Target Population

The seven DTSs operating in Kisii County were targeted for the study. The study targeted the Chief Executive Officers (CEOs), Credit managers, Finance managers, internal Auditors and Loan Field Officers from the DTSs operating in Kisii County. There are seven DTSs operating in Kisii County as listed in table 3.1

<table>
<thead>
<tr>
<th>S/No.</th>
<th>DTSs Name</th>
<th>Chief executive officer</th>
<th>Credit manager</th>
<th>Finance manager</th>
<th>Internal auditor</th>
<th>Field officers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gusii Mwalimu</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>Kenya Achievers</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>3.</td>
<td>Wakenya Pamoja</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>4.</td>
<td>Egerton</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>5.</td>
<td>Vision Point</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>6.</td>
<td>Mwalimu National</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>7.</td>
<td>Afya</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
<td><strong>7</strong></td>
<td><strong>7</strong></td>
<td><strong>7</strong></td>
<td><strong>42</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>

Source: SASRA (2018)

3.4. Sample and Sampling Design

This research adopted census in which all the listed DTSs were taken into consideration. From all the DTS, the researcher administered questionnaires purposively to the Chief Executive Officer (CEO), credit managers, finance managers, Internal Auditors and loan field officers per SACCO. In total, there were seventy respondents. These officers were considered
because they were the one who were directly linked to loan management in their respective SACCOs.

3.5. Data Collection Instruments

Structured questionnaire were used to gather primary data whereas secondary data was gathered using a data collection form from SASRA reports and financial statements from the DTSs for the period 2001 to 2016.

3.5.1. Data Collection Procedures

Research authorization in the form of a research permit was acquired from the National Commission for Science Technology and Innovation (NACOSTI). After the acquisition of the research permit, permission was sought from the DTSs in Kisii County. Primary data was gathered using questionnaires where the researcher dropped and picked the questionnaires at an agreed date and time. Secondary data was gathered from SASRA and the financial statements of the DTSs using the data collection form.

3.5.2. Validity of the Research Instrument

Carole and Almut (2008) define validity as the level at which a research tool determines what it is supposed to determine. This therefore requires that all research instruments should be valid. Joppe (2000) suggests that face validity should be assured by involving experts who should review the questionnaire and agree that the test is a valid measure of what is being measured on the face value. Further, content validity determines the extent to which the research instrument measures the variables it was supposed to measure. Research experts and supervisors reviewed the questionnaires and confirmed that it met both face and content validity thus it was declared fit for this study.
3.5.3. Reliability of the Research Instrument

Table 3.2: Showing Reliability Test

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CRONBACH ALPHA</th>
<th>NO. OF ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate</td>
<td>0.709</td>
<td>8</td>
</tr>
<tr>
<td>Loan follow Up</td>
<td>0.697</td>
<td>8</td>
</tr>
<tr>
<td>Sharing customers credit</td>
<td>0.624</td>
<td>8</td>
</tr>
<tr>
<td>information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan Appraisal</td>
<td>0.638</td>
<td>9</td>
</tr>
<tr>
<td>Group Lending</td>
<td>0.656</td>
<td>8</td>
</tr>
<tr>
<td><strong>AVERAGE</strong></td>
<td><strong>0.665</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher (2018)

Carole et al. (2008) defines reliability as the extent to which the results generated by a research instrument are consistent over a period of time. The results must be a representative of the actual total population and must be reproducible (Joppe, 2000). The researcher conducted a pilot test in Wakenya Pamoja SACCO Nyamaiya branch, Nyamira County. Table 3.2 shows result of the calculated Cronbach’s alpha from the Split half method which was used. A value of alpha of 0.665 was obtained. Creswell (2016) indicated that a Cronbach alpha value of 0.60 and above is acceptable therefore this questionnaire was deemed appropriate for the study.

3.6. Data Analysis and Presentation

The collected data was checked to ensure all the questions were filled as required. The questionnaires were coded and entered into the SPSS programme. Descriptive statistics (mean, percentages and standard deviation) and inferential statistics (multiple regressions) were utilized in analysing the data. To determine the effect of loan management techniques on financial performance among DTSs in Kisii County, multiple regression model was utilised. The results were presented using tables and graphs.

The regression model for the data was as follows:
\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \]

Where \( Y \) = Financial Performance of DTSs (profitability level).

\( \beta_0, \beta_1, \beta_2, \beta_3, \beta_4 \) and \( \beta_5 \) = regression coefficients

\( X_1 \) - Interest rate on loan products

\( X_2 \) - Loan follow ups (number of ‘calls ‘to defaulting customers) examples visitations and warning letters

\( X_3 \) - Sharing of customer credit information (number of customers of DTSs listed in CRB annually)

\( X_4 \) - Loan Appraisal (volume of customers share deposit used as criteria)

\( X_5 \) - Group lending (number of groups obtaining loans)

\( \varepsilon \) - Error term

### 3.7. Ethical Considerations

Ethics is an integral component of the research process. It ensures that the research process is carried out with utmost respect and protection of the research respondents. This study considered the ethical principles. The respondents were treated with utmost respect and courtesy. Secondly, justice was ensured by laying strategies and procedures that meant that those who bear the greatest risk were the greatest beneficiaries (BERA, 2011). The strategies and procedures further ensured that the study was non-exploitative, fair and reasonable. This therefore meant that the study was conducted with utmost integrity with permission sought from relevant authorities. In this regard, the researcher sought for permission from the National Commission for Science Technology and Innovation (NACOSTI). NACOSTI therefore issued a research permit that permitted the data collection process. Additionally, the researcher ensured there was confidentiality and anonymity by informing respondents not to indicate their names on the questionnaires and used pseudonyms to identify the DTSs (BERA, 2011).
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND DISCUSSIONS

4.1 Response Rate

Sixty eight questionnaires were returned after the distribution of seventy questionnaires to the respondents as indicated in table 4.1. This translated to a 97.1% response rate. This response rate was deemed appropriate for data analysis and interpretation because it’s over 60% for social scientific studies (Blumberg, Cooper, and Schindler, 2005).

<table>
<thead>
<tr>
<th>Table 4.1: Showing Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Targeted</strong></td>
</tr>
<tr>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>Financial Manager</td>
</tr>
<tr>
<td>Credit Manager</td>
</tr>
<tr>
<td>Internal Auditor</td>
</tr>
<tr>
<td>Loan field officer</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Source: Field Data (2018)

4.2 Demographic Characteristics of Respondents

4.2.1 Designation of the Respondents

Participants were requested to indicate their designation; the results are shown in figure 4.1.

Figure 4.1: Designation of the Respondents
Source: Field Data (2018)
Majority of the respondents (61.8%) were loan field officers followed by financial managers and credit managers at 10.3%, while internal auditors and chief executive officers were the least at 8.8%. Loan field officers are the majority because they were the officers making follow ups on the loans in order to ensure that there were reduced incidences of non-performing loans. Equally, financial managers were relatively many since they take care of financial control within the DTSs. Credit managers were the in charge of issuing credit and they also ensure proper credit management.

4.2.2 Gender of the Respondents

Respondents were requested to indicate their gender; table 4.2 presents the findings.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>23</td>
<td>33.8</td>
</tr>
<tr>
<td>Female</td>
<td>45</td>
<td>66.2</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data (2018)

It is evident therefore that most of the respondents (66.2%) were female compared to male at (33.8%). It was further revealed that most females were deployed as loan field officers and a few were holding senior positions in the institutions. Most of the males were holding senior positions in the DTSs. These findings show that gender representation in the DTSs sector is not fairly balanced since it favours women in the representation. According to the Constitution of Kenya 2010 (National Council for Law Reporting, 2010), all organizations are required to adhere to the one-third gender rule, therefore this implies that within the DTSs sector, the one-third gender rule is followed.
4.2.3 Respondents Educational Level

Respondents were requested to indicate their level of education; results are shown in figure 4.2.

![Respondents education level](image)

**Figure 4.2: Showing Respondents’ Educational Level**
Source: Field Data (2018)

Majority of the respondents were diploma holders at 51.4%, followed by respondents with undergraduate degrees at 26.5% and master’s degree holders at 22.1%. Comparing with designation of the respondents, it is evident that most of the field loan officers are diploma holders with experience on loan management. While some of the undergraduates hold senior positions and some were field loan officers. Most of the Masters holders were holding senior positions in the DTSs. Therefore, it was clear that majority of the respondents had adequate knowledge and experience to work in financial institutions and specifically in loan management hence besides enhanced loan repayment that would contribute to improved financial performance they had adequate knowledge and experience to participate in this study.
4.2.4 Work Experience of the Respondent

Respondents were requested to indicate their work experience in terms of the number of years they have worked. Results are presented in figure 4.3.

![Work experience](chart.png)

**Figure 4.3: Showing Respondents Work Experience**
Source: Field Data (2018)

Results revealed that majority of the respondents had worked within 3-5 years in the institutions representing 54.4% followed by those who worked between 6-10 years at 35.3%. Those who had worked below 2 years represented 8.8% of the respondents while those who had worked more than 10 years represented 1.5% of the respondents. Based on these results, it can therefore be concluded that most of the respondents had adequate experience of managing loans because they had worked for more than two years therefore they possessed adequate experience to participate in this study and provide meaningful responses that would contribute to the realization of the objectives of the study.

4.3 Descriptive Analysis

This section presents the descriptive analysis in relation to the specific objectives of the study.
4.3.1 Effects of Interest Rate techniques on Financial Performance of DTSs

Table 4.3 shows the analysis of various indicators of interest rates in relation to the financial performance of DTSs in Kisii County Kenya. The analysis was based on a five point Likert scale as shown: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1).

Table 4.3: Showing effects of interest rate techniques on financial performance

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The SACCO uses interest rate as the most appropriate loan management technique</td>
<td>68</td>
<td>4.00</td>
<td>5.00</td>
<td>4.7206</td>
<td>.45205</td>
</tr>
<tr>
<td>The SACCO uses interest rates to control loan volume more so by increasing or decreasing interest rates</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.5000</td>
<td>.76295</td>
</tr>
<tr>
<td>Volatile interest rates affects the profitability of the SACCO</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.3235</td>
<td>.90506</td>
</tr>
<tr>
<td>Different loan products attract different interest rates depending on the risks involved</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.2941</td>
<td>.79286</td>
</tr>
<tr>
<td>Setting of interest rate depends on the characteristics of the borrower</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.1029</td>
<td>1.03865</td>
</tr>
<tr>
<td>Setting of interest rate depends on the characteristics of operational factors</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.0294</td>
<td>1.20905</td>
</tr>
<tr>
<td>Short term loans attracts high interest rates which in turn leads to high rate of non-performing loans</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.0147</td>
<td>.98485</td>
</tr>
<tr>
<td>Interest rate risks is highly considered when approving and disbursing loans</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>3.7059</td>
<td>1.19774</td>
</tr>
<tr>
<td><strong>Aggregate mean and Standard deviation</strong></td>
<td></td>
<td></td>
<td></td>
<td>4.211</td>
<td>0.91790125</td>
</tr>
</tbody>
</table>

*Source: Field Data (2018)*
From table 4.3, the SACCO uses interest rate as the most appropriate loan management technique which had the highest mean of 4.7206, the SACCO uses interest rates to control loan volume by increasing or decreasing interest rates had a mean of 4.500. Volatile interest rates affects the profitability of the SACCO had a mean of 4.3235, different loan products attract different interest rates depending on the risks involved and had a mean of 4.2941, setting of interest rate depends on the characteristics of the borrower had a mean of 4.1029, setting of interest rate depends on the characteristics of operational factors had a mean of 4.0294, Short term loans attracts high interest rates which in turn leads to high rate of non-performing loans had a mean of 4.0147 and Interest rate risks is highly considered when approving and disbursing loans had a mean of 3.7059.

Oxford & Burry-stock (1995) posits that if the mean score is between 3.5-5.0 it is considered to be high, medium if it is between 2.5-3.4 and low if it is between 1.0-2.4. Therefore, if the mean scores are ≥3.5, then it means that the level of agreement with the statements that sought to determine the influence of interest rate on financial performance was high. The average mean for all the variables under interest rate was 4.211, therefore showing a high level of agreement with the statements. This can be taken to imply therefore that interest rate has an influence on financial performance of DTSs.

4.3.2 Effects of Loan Follow ups Loan Management Technique on Financial Performance of the DTSs.

Table 4.4 shows the analysis of various indicators of loan follow ups and financial performance of DTSs in Kisii county Kenya. The analysis was based on a five point Likert scale as shown: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1).
Table 4.4: Showing effects of Loan Follow-ups on Financial Performance of the DTSs

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The SACCO uses loan follow-ups to the borrowers as the most</td>
<td>68</td>
<td>2.00</td>
<td>5.00</td>
<td>4.6618</td>
<td>.61354</td>
</tr>
<tr>
<td>appropriate loan management technique</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow ups enables the stakeholders to quickly determine</td>
<td>68</td>
<td>2.00</td>
<td>5.00</td>
<td>4.3824</td>
<td>.75369</td>
</tr>
<tr>
<td>activities or conditions that require attention before it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>becomes a problem</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow ups addresses the risks and helps to control breaches</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.3088</td>
<td>.88533</td>
</tr>
<tr>
<td>at early stages of the loan portfolio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow ups enables borrowers to use the loans for the purpose</td>
<td>68</td>
<td>2.00</td>
<td>5.00</td>
<td>4.3088</td>
<td>.91842</td>
</tr>
<tr>
<td>intended for hence repayment is prompt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate loan follow ups leads to reduced incidences of</td>
<td>68</td>
<td>2.00</td>
<td>5.00</td>
<td>4.2647</td>
<td>.74549</td>
</tr>
<tr>
<td>loan defaulting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequently make of calls to the client minimize the loan</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.1324</td>
<td>.94481</td>
</tr>
<tr>
<td>defaulting cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan follow ups is costly to the SACCO</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.0588</td>
<td>.99074</td>
</tr>
<tr>
<td>Loan follow up costs once fully factored it makes loans</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>3.7647</td>
<td>1.37263</td>
</tr>
<tr>
<td>expensive hence high incidences of defaulting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggregate mean and Standard deviation</td>
<td></td>
<td></td>
<td></td>
<td>4.2353</td>
<td>0.9031</td>
</tr>
</tbody>
</table>

Source: Field Data (2018)
Based on the above analyzed data on the various indicators of loan follow-ups in relation to financial performance of DTSs. Findings are presented in terms of means and standard deviation respectively; the SACCO uses loan follow-ups to the borrowers as the most appropriate loan management technique (4.6618, 0.61354), follow ups enables the stakeholders to quickly determine activities or conditions that require attention before it becomes a problem (4.3824, 0.75369), follow ups addresses the risks and helps to control breaches at early stages of the loan portfolio (4.3088, 0.88533), follow ups enables borrowers to use the loans for the purpose intended for hence repayment is prompt (4.3088, 0.91842), appropriate loan follow ups leads to reduced incidences of loan defaulting (4.2647, 0.74549), you frequently make calls to your client to minimize loan defaulting cases (4.1324, 0.94481), loan follow ups is costly to the SACCO (4.0588, 0.99074) and loan follow up costs once fully factored it makes loans expensive hence high incidences of defaulting (3.7647, 1.37263).

Oxford & Burry-stock (1995) posits that if the mean score is between 3.5-5.0 it is considered to be high, medium if it is between 2.5-3.4 and low if it is between 1.0-2.4. Therefore, if the mean scores are ≥3.5, then it means that the level of agreement by respondents with the statements that sought to determine the influence of loan follow-ups on financial performance was high. The average mean for all the variables under loan follow-ups was 4.2353, therefore showing a high level of agreements with the statements. This can be taken to imply therefore that loan follow-ups has an influence on financial performance of DTSs.

4.3.3 Sharing of Customer Credit Information and Financial Performance of the DTSs

Table 4.5 shows the analysis of various indicators of sharing of credit information and financial performance of DTSs in Kisii county Kenya. The analysis was based on a five point Likert scale as shown: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1).
### Table 4.5: Showing effects of Sharing of Customer Credit Information on Financial Performance of the DTSs

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The SACCO uses sharing of credit information of borrowers as the most appropriate loan management technique</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.4118</td>
<td>.95002</td>
</tr>
<tr>
<td>The SACCO consult CRB before lending money to the borrower</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.3235</td>
<td>.88842</td>
</tr>
<tr>
<td>The Sacco is registered with Credit Reference Bureau (CRB) with an aim of reducing loan defaulting</td>
<td>68</td>
<td>2.00</td>
<td>5.00</td>
<td>4.3235</td>
<td>.80002</td>
</tr>
<tr>
<td>Sharing of credit information of the borrower has reduced the borrowers’ over-indebtedness</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.2206</td>
<td>.94388</td>
</tr>
<tr>
<td>Sharing of credit information of the borrower helps in tracking of the borrower’s credit records hence enhancing credit repayment</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.1765</td>
<td>1.00656</td>
</tr>
<tr>
<td>Listing of the clients who have defaulted loans has improved the loan repayment which in turn leads to improved firm performance</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.1176</td>
<td>.98541</td>
</tr>
<tr>
<td>Sharing of credit information of the borrower has led to increased customers’ access to credit</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.0000</td>
<td>1.05094</td>
</tr>
<tr>
<td>Sharing of credit information of the borrower has improved terms of credit</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>3.7353</td>
<td>1.19223</td>
</tr>
<tr>
<td><strong>Aggregate mean and Standard deviation</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>4.1636</strong></td>
<td><strong>0.977185</strong></td>
</tr>
</tbody>
</table>

Source: Field Data (2018)

Based on the above analysis the SACCO uses sharing of credit information of borrowers as the most appropriate loan management technique had a mean of 4.4118 with a standard deviation of 0.95002, the SACCOs consult CRB before lending money to the borrower had a mean of 4.3235 with a standard deviation of 0.88842, My SACCO is registered with Credit
Reference Bureau (CRB) with an aim of reducing loan defaulting with a mean of 4.3235 and a standard deviation of 0.80002, Sharing of credit information of the borrower has reduced the borrowers’ over-indebtedness had a mean of 4.2206 with a standard deviation 0.94388, Sharing of credit information of the borrower helps in tracking of the borrower’s credit records hence enhancing credit repayment had a mean of 4.1765 and standard deviation of 1.00656, Listing of your clients who have defaulted loans has improved the loan repayment which in turn leads to improved firm performance had a mean of 4.1176 and standard deviation of 0.98541, Sharing of credit information of the borrower has led to increased customers’ access to credit had a mean of 4.0000 with a standard deviation of 1.05094 and Sharing of credit information of the borrower has improved terms of credit had a mean of 3.7353 with a standard deviation of 1.19223.

Oxford & Burry-stock (1995) posits that if the mean score is between 3.5-5.0 it is considered to be high, medium if it is between 2.5-3.4 and low if it is between 1.0-2.4. Therefore, if the mean scores are ≥3.5, then it means that the level of agreement by respondents with the statements that sought to determine the influence of sharing of credit information on financial performance was high. The average mean for all the variables under sharing of customer credit information was 4.1636, therefore showing a high level of agreements with the statements. This can be taken to imply therefore that sharing of customer credit information has an influence on financial performance of DTSs.

4.3.4 Effects Loan Appraisal Techniques on Financial Performance of the DTSs

Table 4.6 shows the analysis of various indicators of loan appraisal in relation to financial performance of DTSs in Kisii County Kenya. The analysis was based on a five point Likert scale as shown: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and strongly Disagree (1).
Table 4.6: Showing effects of loan appraisal on financial performance of DTSs

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The SACCO uses collateral as a parameter of borrower appraisal</td>
<td>68</td>
<td>3.00</td>
<td>5.00</td>
<td>4.6176</td>
<td>0.54716</td>
</tr>
<tr>
<td>The SACCO uses loan appraisal as the most appropriate loan management technique</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.4559</td>
<td>0.76165</td>
</tr>
<tr>
<td>The SACCO uses bankability that is past month bank statements, asset and liabilities in order to loan repayment capability of the client</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.3676</td>
<td>0.97589</td>
</tr>
<tr>
<td>The SACCO uses control as a parameter of borrower appraisal</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.3088</td>
<td>0.88533</td>
</tr>
<tr>
<td>Appraisal makes the borrowers to use the loans for the intended purpose hence reducing the risk of loan defaulting</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.2941</td>
<td>1.09352</td>
</tr>
<tr>
<td>The SACCO applies field investigation and market value of asset to determine the capability of the borrower to repay the loan</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.2941</td>
<td>1.02300</td>
</tr>
<tr>
<td>The SACCO uses conditions as a parameter of borrower appraisal</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.2647</td>
<td>1.05968</td>
</tr>
<tr>
<td>The SACCO uses capacity as a parameter of borrower appraisal</td>
<td>68</td>
<td>2.00</td>
<td>5.00</td>
<td>4.0294</td>
<td>0.82806</td>
</tr>
<tr>
<td>The SACCO uses cash as a parameter of borrower appraisal</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>3.8824</td>
<td>1.13991</td>
</tr>
<tr>
<td><strong>Aggregate mean and Standard deviation</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>4.2794</strong></td>
<td><strong>0.9238</strong></td>
</tr>
</tbody>
</table>

Source: Field Data (2018)

In relation to the analysis of the various indicators of loan appraisal as a loan management techniques, the results are presented inform of means and standard deviation respectively; the SACCO uses collateral as a parameter of borrower appraisal (4.6176, 0.54716), the SACCO uses loan appraisal as the most appropriate loan management technique (4.4559, 0.76165), the SACCO uses bankability that is past month bank statements, asset and...
liabilities in order to loan repayment capability of the client (4.3676, 0.97589), the SACCO uses control as a parameter of borrower appraisal (4.3088, 0.88533), appraisal makes the borrowers to use the loans for the intended purpose hence reducing the risk of loan defaulting (4.2941, 1.09352), the SACCO applies field investigation and market value of asset to determine the capability of the borrower to repay the loan (4.2941, 1.02300), the SACCO uses conditions as a parameter of borrower appraisal (4.2647, 1.05968), the SACCO uses capacity as a parameter of borrower appraisal (4.0294, 1.02300) and the SACCO uses cash as a parameter of borrower appraisal (3.8824, 1.13991).

According to Oxford & Burry-stock (1995) if the mean score is between 3.5-5.0 it is considered to be high, medium if it is between 2.5-3.4 and low if it is between 1.0 and 2.4. Therefore, if the mean scores are ≥3.5, then it means that the level of agreement by respondents with the statements that sought to determine the influence of loan appraisal on financial performance was high. The average mean for all the variables under loan appraisal was 4.1636, therefore showing a high level of agreements with the statements. This can be taken to imply therefore that loan appraisal has an influence on financial performance of DTSs.

### 4.3.5 Group Lending as a Loan Management Technique and Financial Performance of DTSs

Table 4.7 shows the analysis of various indicators of group lending in relation to the financial performance of DTSs in Kisii County Kenya. The analysis was based on a five point Likert scale as shown: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1).
### Table 4.7: Showing Effects of Group Lending on Financial Performance of DTSs

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The SACCO uses group lending as the most appropriate loan management technique</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.4706</td>
<td>.83703</td>
</tr>
<tr>
<td>Peer effects actually improve repayment rates and act as stabilizing force</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.2647</td>
<td>.98674</td>
</tr>
<tr>
<td>Group members coordination of their repayment decisions and cooperation for mutual benefit leads to reduced monitory costs and reduced nonperforming loans</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.2500</td>
<td>1.01298</td>
</tr>
<tr>
<td>Frequent group meetings reduces the incidences of individual default</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.2059</td>
<td>.90700</td>
</tr>
<tr>
<td>Group lending leads to reduced interest rate risks</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.1176</td>
<td>1.11341</td>
</tr>
<tr>
<td>Social ties are used to screen, monitor and enforce loan repayment in your SACCO</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>4.0294</td>
<td>1.03622</td>
</tr>
<tr>
<td>Using of joint liability to lend money to the borrowers instead of physical collateral is more common</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>3.9706</td>
<td>1.07856</td>
</tr>
<tr>
<td>Group lending has generally reduced the number of defaulters in the SACCO</td>
<td>68</td>
<td>1.00</td>
<td>5.00</td>
<td>3.7941</td>
<td>1.31079</td>
</tr>
<tr>
<td><strong>Aggregate mean and Standard deviation</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>4.138</strong></td>
<td><strong>1.035</strong></td>
</tr>
</tbody>
</table>

*Source: Field Data (2018)*

In relation to the analysis of the various indicators of group lending as a loan management technique, the results are presented inform of means and standard deviation respectively; Peer effects actually improve repayment rates and act as stabilizing force as an indicator of group lending was the following with a mean of 4.2647 and a standard deviation of 0.98674, Group member’s coordination of their repayment decisions and cooperation for mutual benefit leads to reduced monitory costs and reduced nonperforming loans had a mean of 4.25 and standard deviation of 1.01298, Frequent group meetings reduces the incidences of individual default
with a mean of 4.2059 and standard deviation of 0.90700, Group lending leads to reduced interest rate risks had a mean of 4.1176 and standard deviation of 1.11341, Social ties are used to screen, monitor and enforce loan repayment in your SACCO had a mean of 4.0294 and a standard deviation of 1.03622, Using of joint liability to lend money to the borrowers instead of physical collateral is more common had a mean of 3.9706 and a standard deviation of 1.07856, and Group lending has generally reduced the number of defaulters in my SACCO had a mean of 3.7941 and a standard deviation of 1.31079.

Oxford & Burry-stock (1995) posits that if the mean score is between 3.5-5.0 it is considered to be high, medium if it is between 2.5-3.4 and low if it is between 1.0-2.4. Therefore, if the mean scores are ≥3.5, then it means that the level of agreement by respondents with the statements that sought to determine the influence of loan appraisal on financial performance was high. The average mean for all the variables under group lending was 4.138, therefore showing a high level of agreements with the statements. This can be taken to imply therefore that group lending has an influence on financial performance of DTSs.

### 4.3.6 Financial Performance of DTSs

<table>
<thead>
<tr>
<th>Table 4.8: Showing Financial Performance of DTSs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td>Application of loan management techniques leads to a decrease in the volume of NPLs to gross loans ratio</td>
</tr>
<tr>
<td>Application of loan management techniques lead to increased level of profitability</td>
</tr>
<tr>
<td>Application of loan management techniques leads to a rise in EPS to shareholders</td>
</tr>
<tr>
<td><strong>Aggregate mean and Standard deviation</strong></td>
</tr>
</tbody>
</table>

Source: Field Data (2018)
In relation to the analysis of the various indicators of financial performance, the results are presented in the form of means and standard deviation respectively; application of loan management techniques leads to a decrease in the volume of NPLs to gross loans ratio had a mean of 4.5000 and a standard deviation of 0.74313, application of loan management techniques lead to increased level of profitability had a mean of 4.0294 and standard deviation of 1.0362, while application of loan management techniques leads to a rise in EPS to shareholders had a mean of 3.9552 and a standard deviation of 1.12051.

Oxford & Burry-stock (1995) posits that if the mean score is between 3.5-5.0 it is considered to be high, medium if it is between 2.5-3.4 and low if it is between 1.0-2.4. Therefore, if the mean scores are ≥3.5, then it means that the level of agreement by respondents with the statements that sought to determine the influence of loan management techniques leads to a decrease in the volume of NPLs to gross loans ratio, increase in level of profitability and a rise in EPS to shareholders was high. The average mean for all the variables under financial performance was 4.1615, therefore showing a high level of agreements with the statements. This can be taken to imply therefore that loan management techniques adopted had an influence on the financial performance of the DTS in Kisii County.
4.7 Analysis of SACCO Loans

Table 4.9: Total gross loans

<table>
<thead>
<tr>
<th>Years</th>
<th>Vision Point</th>
<th>Gusii Mwalimu</th>
<th>Egerton</th>
<th>Kenya Achievers</th>
<th>Wakenya Pamoja</th>
<th>Mwalimu</th>
<th>Afya</th>
<th>Total Gross Loan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>0</td>
<td>944000000</td>
<td>0</td>
<td>20000000</td>
<td>21000000</td>
<td>23405100</td>
<td>11640700</td>
<td>102045800</td>
</tr>
<tr>
<td>2002</td>
<td>0</td>
<td>944000000</td>
<td>0</td>
<td>235000000</td>
<td>310000000</td>
<td>24345000</td>
<td>12700302</td>
<td>91545302</td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
<td>944000000</td>
<td>0</td>
<td>257000000</td>
<td>24144000</td>
<td>25432100</td>
<td>15530500</td>
<td>131980660</td>
</tr>
<tr>
<td>2004</td>
<td>0</td>
<td>944000000</td>
<td>0</td>
<td>351250000</td>
<td>240000100</td>
<td>35400321</td>
<td>17405200</td>
<td>153595570</td>
</tr>
<tr>
<td>2005</td>
<td>900000000</td>
<td>157000000</td>
<td>15770700</td>
<td>40100000</td>
<td>25312000</td>
<td>40500321</td>
<td>17405200</td>
<td>1888024529</td>
</tr>
<tr>
<td>2006</td>
<td>295000000</td>
<td>163100000</td>
<td>15930008</td>
<td>50239000</td>
<td>34000000</td>
<td>56303000</td>
<td>23405400</td>
<td>1983825488</td>
</tr>
<tr>
<td>2007</td>
<td>48700850</td>
<td>193000000</td>
<td>160909099</td>
<td>55189000</td>
<td>32104000</td>
<td>76300200</td>
<td>24500300</td>
<td>2327703449</td>
</tr>
<tr>
<td>2008</td>
<td>600008000</td>
<td>200000000</td>
<td>163859368</td>
<td>60109000</td>
<td>54301200</td>
<td>84502560</td>
<td>62134200</td>
<td>3012259521</td>
</tr>
<tr>
<td>2009</td>
<td>110000780</td>
<td>240800000</td>
<td>168927184</td>
<td>70208000</td>
<td>54300120</td>
<td>79102000</td>
<td>56400200</td>
<td>2946936484</td>
</tr>
<tr>
<td>2010</td>
<td>90880142</td>
<td>244400000</td>
<td>170633519</td>
<td>85109000</td>
<td>75000100</td>
<td>84502560</td>
<td>62134200</td>
<td>3012259521</td>
</tr>
<tr>
<td>2011</td>
<td>69720130</td>
<td>292100000</td>
<td>172357090</td>
<td>90089000</td>
<td>78000000</td>
<td>87450300</td>
<td>12230430</td>
<td>3540920820</td>
</tr>
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<td>2012</td>
<td>53129144</td>
<td>297000000</td>
<td>174098071</td>
<td>100230000</td>
<td>82300200</td>
<td>87500600</td>
<td>12420012</td>
<td>3591458139</td>
</tr>
<tr>
<td>2013</td>
<td>49398700</td>
<td>419700000</td>
<td>179482547</td>
<td>110094355</td>
<td>90300200</td>
<td>14550060</td>
<td>12530020</td>
<td>4897076603</td>
</tr>
<tr>
<td>2014</td>
<td>35550000</td>
<td>473600000</td>
<td>18503355</td>
<td>927622251.5</td>
<td>91200300</td>
<td>14640020</td>
<td>14530020</td>
<td>6100576307</td>
</tr>
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<td>2015</td>
<td>43880330</td>
<td>491500000</td>
<td>188897488</td>
<td>95286660</td>
<td>94200234</td>
<td>15640030</td>
<td>14630020</td>
<td>5639877477</td>
</tr>
<tr>
<td>2016</td>
<td>68330000</td>
<td>630000000</td>
<td>190716918</td>
<td>124389985</td>
<td>112304000</td>
<td>15734020</td>
<td>14740020</td>
<td>7100481306</td>
</tr>
</tbody>
</table>

Source: Field Data (2018)

Tables 4.9 shows the total gross loans of the seven DTSs where secondary data was collected from. The data shows that the loan portfolio for Vision point DTSs increased between 2005 and 2008 when it began declining until 2014. Thereafter, it has been increasing steadily. However, for Gusii Mwalimu, Egerton, Kenya Achievers, Mwalimu National and AFYA SACCOs, their loan portfolio have been increasing steadily from the year 2001 to the year 2016. Wakenya Pamoja SACCO loan portfolio was sporadic between 2001 and 2006. It grew steadily from the year 2007 to the year 2016. Therefore, the SACCOs might be applying appropriate loan management techniques that are contributing to the growth of their loan portfolios’.
Table 4. 10: Total non-performing loans

<table>
<thead>
<tr>
<th>Year</th>
<th>Vision</th>
<th>Gusii Mwalimu</th>
<th>Egerton</th>
<th>Kenya Achievers</th>
<th>Wakenya Pamoja</th>
<th>Mwalimu Afya</th>
<th>Total NPLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>0</td>
<td>1240000</td>
<td>0</td>
<td>1000000</td>
<td>125000</td>
<td>0</td>
<td>1640700</td>
</tr>
<tr>
<td>2002</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>705000</td>
<td>342000</td>
<td>0</td>
<td>1700202</td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
<td>1060000</td>
<td>0</td>
<td>514000</td>
<td>415426</td>
<td>0</td>
<td>1050500</td>
</tr>
<tr>
<td>2004</td>
<td>0</td>
<td>1060000</td>
<td>0</td>
<td>1405000</td>
<td>315,000</td>
<td>0</td>
<td>1416500</td>
</tr>
<tr>
<td>2005</td>
<td>17790170</td>
<td>1060000</td>
<td>15400286.6</td>
<td>3208000</td>
<td>358456</td>
<td>18790170</td>
<td>11460500</td>
</tr>
<tr>
<td>2006</td>
<td>9570180</td>
<td>0</td>
<td>14951733.9</td>
<td>1004780</td>
<td>8570180</td>
<td>13534400</td>
<td>2747202</td>
</tr>
<tr>
<td>2007</td>
<td>10780000</td>
<td>0</td>
<td>14516246.6</td>
<td>2207560</td>
<td>1603806</td>
<td>12232456</td>
<td>2747202</td>
</tr>
<tr>
<td>2008</td>
<td>13550000</td>
<td>0</td>
<td>14372521</td>
<td>1803270</td>
<td>14550000</td>
<td>12324750</td>
<td>2747202</td>
</tr>
<tr>
<td>2009</td>
<td>25850770</td>
<td>0</td>
<td>16148900.4</td>
<td>2808320</td>
<td>23850170</td>
<td>14425034</td>
<td>2747202</td>
</tr>
<tr>
<td>2010</td>
<td>17790000</td>
<td>0</td>
<td>16478469.8</td>
<td>5106540</td>
<td>16270023</td>
<td>2747202</td>
<td>12232456</td>
</tr>
<tr>
<td>2011</td>
<td>7880300</td>
<td>17800000</td>
<td>16988113.2</td>
<td>6306230</td>
<td>9880300</td>
<td>12178500</td>
<td>2747202</td>
</tr>
<tr>
<td>2012</td>
<td>5000000</td>
<td>17000000</td>
<td>16493313.8</td>
<td>5011500</td>
<td>5040600</td>
<td>16000400</td>
<td>2747202</td>
</tr>
<tr>
<td>2013</td>
<td>9136726</td>
<td>23720000</td>
<td>16330013.7</td>
<td>6605661</td>
<td>9236726</td>
<td>21720100</td>
<td>2747202</td>
</tr>
<tr>
<td>2014</td>
<td>19560000</td>
<td>19680000</td>
<td>15854382.2</td>
<td>51019224</td>
<td>18560500</td>
<td>19580400</td>
<td>2747202</td>
</tr>
<tr>
<td>2015</td>
<td>16570000</td>
<td>120000000</td>
<td>16344722</td>
<td>6679595</td>
<td>14570600</td>
<td>29500000</td>
<td>2747202</td>
</tr>
<tr>
<td>2016</td>
<td>12480000</td>
<td>200000000</td>
<td>16671616.5</td>
<td>2487800</td>
<td>13430600</td>
<td>30560500</td>
<td>2747202</td>
</tr>
<tr>
<td>165958146</td>
<td>402620000</td>
<td>190550320</td>
<td>97872480</td>
<td>122218164</td>
<td>164150846</td>
<td>228343465</td>
<td>1371713421</td>
</tr>
</tbody>
</table>

Source: Field Data (2018)

Table 4.10 presents the total NPLs for the seven DTSs in Kisii County. To determine whether the NPLs were problematic, there is need to compute NPLs to gross loan ratio. Therefore, based on table 4.9 and 4.10, the NPL to gross loan ratio is computed as follows:

NPL to Gross loan ratio = NPL/Gross loans

= 1371713421/49998471594

= 0.027435

= 2.7435%

This indicated that the SACCOs were performing well since SACCOS with NPL to Gross Loan ratio which is ≤5 are financially stable. Therefore, effective implementation of loan management techniques leads to improved financial performance since the ratio was 2.7435% which was less than 5%. This finding contradicts findings by central bank of Kenya that
showed that the ratio of gross non-performing loans to gross loans increased from 9.1 percent in December 2016 to 9.5 percent in March 2017 (CBK, 2017). The rise was attributed to a challenging business environment. Additionally, it may be argued that since the central bank findings refer to all banking institutions, DTSs may be adopting effective loan management techniques thus their continued impressive performance.

4.5 Inferential Analysis

4.5.1 Testing of Assumptions of Linear Regression

This section sought to test the assumptions that are meant to check whether the data met the regression standard.

4.5.1.1 Test of Normality Assumption

*Figure 4.4* shows the normal diagonal line on a normal p-p plot of a regression standardized residual and bunch of little circles following the normality line.

![Normal P-P Plot of Regression Standardized Residual](image)

*Figure 4.4: Showing Normality of Data*

Source: Field Data (2018)
Figure 4.4 shows that the assumptions for normality and linearity were met, since the dotted circles run parallel with diagonal line.

4.5.1.2 Check for homoscedasticity

To check the relationship between independent and dependent variables, a scatter diagram was plotted. The diagram below shows a scatter plot of regression standardized residual.

*Figure 4.5: Showing Test for Checking Homoscedasticity*

Source: Field Data (2018)

*Figure 4.5* indicates circles equally distributed above and below zero on x-axis, and to the left and right of on the y-axis shows that the assumption for homoscedasticity has been met.
4.5.1.3 Test for multi collinearity of data

Collinearity diagnostics was conducted to establish whether the predictors are not highly correlated with one another. Table 4.14 shows the coefficients tolerance and variance inflation factors (VIF).

Table 4.11: Test for multi collinearity of data

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>Interest Rates on Financial Performance</td>
<td>.525</td>
<td>1.903</td>
</tr>
<tr>
<td>Group Lending on Financial Performance</td>
<td>.612</td>
<td>1.633</td>
</tr>
<tr>
<td>Sharing of Credits on Financial Performance</td>
<td>.644</td>
<td>1.553</td>
</tr>
<tr>
<td>Loan Appraisal on Financial Performance</td>
<td>.698</td>
<td>1.434</td>
</tr>
<tr>
<td>Loan Follow-Ups on Financial Performance</td>
<td>.661</td>
<td>1.512</td>
</tr>
</tbody>
</table>

Source: Field Data (2018)

From table 4.11 it can be confirmed there is absence of multicollinearity since variance inflation factors (VIF) are below 10 and tolerance score above 0.1 (statistics=0.525 and 1.434 respectively.

4.5.2 Multiple Regression Analysis: Model Summary

To determine whether the independent variables under investigation (interest rate on loan products, loan follow ups, sharing of customers’ credit information, loan appraisal, and group lending) had an effect on the dependent variable (financial performance) multiple regression analysis was used. The findings are presented in table 4.12.

Table 4.12: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.519a</td>
<td>.269</td>
<td>.211</td>
<td>.56170</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), interest rate on financial performance, loan follow ups on financial performance, sharing of customers’ credit information on financial performance, loan appraisal on financial performance, group lending on financial performance.
To determine the effect of the independent on the dependent variables, this study employed a regression model. From the regression model, it was established that 26.9% of the variations in financial performance of the DTSs is explained by (interest rates, loan follow-ups, sharing of customer credits, loan appraisal and group lending). This is as per the $R^2$ which is 0.269. Generally from the model, it is evident that the predictor variables have an influence on financial performance of DTSs. However, they do not indicate any strong influence on performance of DTSs. This means that there are other variables that need to be included in future studies. These findings concurred with findings by Ugirase (2013) that revealed that different loan management techniques such as credit policy, client appraisal, collateral substitutes and credit monitoring had an effect on financial performance of commercial banks in Rwanda.

**4.5.3 Analysis of Variance (ANOVA)**

The ANOVA results for the regression coefficients are presented in table 4.13.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>7.216</td>
<td>5</td>
<td>1.443</td>
<td>4.574</td>
<td>.001b</td>
</tr>
<tr>
<td>Residual</td>
<td>19.562</td>
<td>62</td>
<td>.316</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26.778</td>
<td>67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. **Predictors**: (Constant), interest rate on financial performance, loan follow ups on financial performance, sharing of customers’ credit information on financial performance, loan appraisal on financial performance, group lending on financial performance.

b. **Dependent Variable**: Financial performance

Table 4.13 showed that the F-test statistics is 4.574, the regression model is statistically significant since the p-value (0.001) is less than 0.05. This implies that this model can be used to make predictions. It further implied that loan management techniques had a
significant effect on financial performance of DTSs. These findings concurred with findings by Ugirase (2013) that revealed that different loan management techniques such as credit policy, client appraisal, collateral substitutes and credit monitoring had a significant positive effect on financial performance of commercial banks in Rwanda. These findings further concur with findings by Bwoma, Muturi and Mogwanbo (2017) that revealed that loan management practices have a significant effect on the performance of DTSs in Kisii County. Similarly, this study agreed with findings by Kariuki (2017) that revealed that credit management strategies have a significant positive effect on financial performance of DTSs.

4.5.4 Coefficients

The beta coefficients of the variables from the analysis are presented in Table 4.14. The regression model was written as: Financial Performance = 0.634 + 0.137 Interest rate + 0.201 loan follow-ups + 0.049 sharing of customers’ credit information + 0.468 loan appraisal + -0.025 group lending.

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
<td>t</td>
<td>Sig.</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>B</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.634</td>
<td>.802</td>
<td>.790</td>
<td>.432</td>
</tr>
<tr>
<td>Interest rates</td>
<td>.137</td>
<td>.174</td>
<td>.118</td>
<td>.787</td>
</tr>
<tr>
<td>Loan follow-Ups</td>
<td>.201</td>
<td>.161</td>
<td>.167</td>
<td>1.251</td>
</tr>
<tr>
<td>Loan appraisal</td>
<td>.468</td>
<td>.172</td>
<td>.353</td>
<td>2.715</td>
</tr>
<tr>
<td>Group lending</td>
<td>-.025</td>
<td>.155</td>
<td>-.022</td>
<td>-.160</td>
</tr>
</tbody>
</table>

| a. Dependent Variable: Financial Performance of DTSs |

\[ Y = 0.634 + 0.137X_1 + 0.201X_2 + 0.049X_3 + 0.468X_4 - 0.025X_5 \]
The Beta Coefficients in the regression model show that the tested variables had positive relationship with financial performance. The findings show that all the variables tested were not statistically significant with p-values greater than 0.05 except loan appraisal that had p-value of 0.009 which was less than 0.05.

\[ X_1 \text{– interest rate} = 0.137 \] which implied that a unit change in interest rate resulted into a 0.137 change in the financial performance.

\[ X_2 \text{– loan follow-ups} = 0.201 \]; this implied that one unit change in Loan follow ups will result into a 0.201 change in the financial performance.

\[ X_3 \text{– sharing customer credit information} = 0.049 \]; implied that one unit change in Sharing of customer’s credit information will result into a 0.049 change in the financial performance.

\[ X_4 \text{– loan appraisal} = 0.468 \] implied that one unit change in Loan appraisal will result into a 0.468 change in the financial performance.

\[ X_5 \text{– group lending} = -0.025 \]; implied that one unit change in group lending will result into a -0.025 change in the financial performance.

These findings concur with other studies. Firstly, on the effect of interest rates on financial performance of DTSs, this study has revealed that interest rate technique had a positive effect on financial performance of DTSs. However, the effect is not significant because the p-value is 0.434 which is greater than 0.05. These finding concur to findings by Ndegwa, Waweru and Huka (2016) that reported that interest charged by MFIs influenced their financial performance. However, the study by Ndegwa, Waweru and Huka (2016) had a significant influence unlike the present study whose influence was not significant. This finding contradicted findings by Mwangi (2014) and Onyekachi and Okoye (2013) which showed
that there is a strong and significant relationship between lending rates and financial performance of MFIs and Nigeria deposit money banks respectively. This finding agreed with findings by Kariuki and Ngahu (2016) that interest charged by micro-finance institutions in Naivasha had an influence on loan repayment which further influenced financial performance of the MFIs. If the interest rate charged was higher, the level of loan default will be higher therefore poor financial performance. However, the study by Kariuki and Ngahu (2016) had a significant relationship unlike the current study. Therefore, interest rate charged by DTSs can determine whether they succeed financially or not. However, there is need for DTSs to charge interests within the range of commercial banks so that they can gain a competitive advantage and improve loan uptake.

Secondly, this study revealed that loan follow-up techniques had a positive effect on financial performance of DTSs in Kisii County. However, the effect is not significant because the p-value is 0.216 which is greater than 0.05. This finding is similar to findings by Moronya, Onditi and Nyagol (2016) that reported a positive association between credit monitoring and financial performance of SACCOs in Kisii County. This finding further concurred with findings by Maithya (2017) that reported that loan recovery policy has a positive effect on return on asset of the SACCOs. Return on asset is a predictor of the financial performance of DTSs; therefore an increase in the ROA implies improved financial performance. Loan follow-ups and recovery process may result to an increase in the cost of the loans, hence there is need for an effective policy that ensures effective and economical loan follow up process that will ensure less costs involved and improved loan repayment that will culminate in improved financial performance of DTSs because of loans are defaulted the costs will be passed into the SACCO thus affect its performance (Olagunju and Adeyemo, 2007; Kariuki, 2010; Stiglitz & Weiss, 2007; Fofack, 2005; Fleofel, 2009). However, the study by Maithya
(2017) differed from the current study in that the influence of loan recovery on ROA was significant.

Thirdly, this study revealed that customer credit information sharing techniques had a positive effect on financial performance of DTSs in Kisii County. However, the effect is not significant because the p-value is 0.768 which is greater than 0.05. This finding was similar to findings by Kioko and Wario (2014) that revealed that credit information sharing positively influenced the performance of DTSs in Kenya. This is despite the fact that the current study was not statistically significant whereas the study by Kioko and Wario was significant. Additionally, the findings were similar to findings by Ndungo, Olweny, and Memba (2017) that reported that credit information sharing had a positive effect on financial performance of licensed SACCOs in Kenya. These findings further concurred with findings by Maina et al. (2016) that reported a positive relationship between credit reports, credit scoring and level of loan default in SACCOs in Meru County. With reduced loan default, there is increased financial performance of deposit taking SACCOs. To reduce loan default and enhance financial performance, SACCOs need to comply with the credit reference bureau on sharing customer credit information. These findings also concurred with findings by Munyiri and Wekesa (2017) that revealed that loan default information had a significant influence on growth of SACCOs. The study concluded that registering SACCOs with the Credit Reference Bureau enhances loan repayment therefore resulting in improved financial performance. However, the current study’s influence on financial performance was not significant like Munyiri and Wekesa’s study. Therefore, DTSs should ensure they are registered with the CRB and adopt customer credit sharing regulations.

Fourthly, this study revealed that loan appraisal had a significant positive effect on financial performance of DTSs in Kisii County. The finding concurred with findings by Moronya, Onditi and Nyagol (2016) that revealed that client appraisal had a positive relationship
between client appraisal and financial performance of SACCOs in Kisii County. These findings further agree with findings by Lagat et al. (2013) which showed that credit monitoring had a significant effect on performance of the lending portfolio resulting in an effect on the financial performance of Savings and Credit Co-operatives. This finding further concurred with findings by Kalu, Shieler and Amu (2018) which revealed that credit risk appraisal had a positive relationship on financial performance of MFIs and with findings by Kibui and Moronge (2014) that reported a positive correlation between client appraisal strategies and financial performance of Harambee SACCO. However, DTSs should ensure they adopt consistent and systematic strategies that should ensure detailed information about a client is accessed and assessed before loan disbursement. Lastly, these findings were similar to findings by Kimotho and Gekara (2016) that reported a positive association between client appraisal analysis and financial performance of commercial banks in Kenya. They further reported that the enhanced financial performance of commercial banks resulted from frequent use of credit appraisal analysis in the process of issuing loans. However, Ratton (2013) argues that the adoption of informal and inconsistence procedures in loan appraisal always leads to high incidences of loan default risk therefore leading to poor financial performance of DTSs. Therefore, there is need for a thorough loan appraisal process that should ensure clients who are likely to default are identified and profiled thus reduced loan default which will therefore contribute to enhanced financial performance due to good loan repayment.

Lastly, this study reported that group lending techniques had a negative effect on financial performance of DTSs in Kisii County. However, the effect is not significant because the p-value is 0.873 which is greater than 0.05. This finding contradicted findings by Tundui and Tundui (2008) that revealed that group lending contributes to a reduction of transaction costs thus leading to improved profits among DTSs. Findings in the current study are different from findings by Cassar, Crowley and Wydick (2006) that revealed that personal trust
between group members and homogeneity led to improved loan repayment thus leading to improved financial performance of MFIs. Other studies have reported a positive contribution of group lending to loan repayment. The studies include: Namuyaga (2009) revealed that group guarantee serves as a self-policing mechanism to ensure timely repayment of loans; Carpena et al. (2010) revealed that group borrowing leads to creation of social capital which leads to better business lending thus low loan defaulting. Reduced loan defaulting and increased loan repayment is key features of successful financial institutions. Financial institutions largely make profits from interests earned from loan, thus with increased loan repayment, there is improved financial performance. These findings further differ from findings by Kibisu, Memba and Mulyungi (2015) that revealed that group lending minimized the need for loan security and ensured loans were utilised according to the initial purpose. This therefore led to enhanced repayment because of generated profits from the SMEs. As discussed, better loan repayment leads to improved financial performance of the lenders. Lastly, these findings disagree with findings by Kadongo and Kendi (2013) that revealed that group lending had minimized loan default compared to individual lending. Thus the adoption of group lending as a loan management technique may not significantly contribute to increased loan repayment (Armendariz & Morduch 2007).
### 4.6 Testing of Hypotheses

**Table 4.15: Showing conclusion on hypotheses testing**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>P-values</th>
<th>Results</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H&lt;sub&gt;0&lt;/sub&gt;1 Interest rate techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>0.434</td>
<td>Interest rate techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>Failed to reject H&lt;sub&gt;0&lt;/sub&gt;1</td>
</tr>
<tr>
<td>H&lt;sub&gt;0&lt;/sub&gt;2 Loan follow-up techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>0.216</td>
<td>Loan follow-up techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>Failed to reject H&lt;sub&gt;0&lt;/sub&gt;2</td>
</tr>
<tr>
<td>H&lt;sub&gt;0&lt;/sub&gt;3 Sharing customer credit information techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>0.768</td>
<td>Sharing customer credit information techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>Failed to reject H&lt;sub&gt;0&lt;/sub&gt;3</td>
</tr>
<tr>
<td>H&lt;sub&gt;0&lt;/sub&gt;4 Loan appraisal techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>0.009</td>
<td>Loan appraisal techniques have a statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>H&lt;sub&gt;0&lt;/sub&gt;4 was rejected</td>
</tr>
<tr>
<td>H&lt;sub&gt;0&lt;/sub&gt;5 Group lending techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>0.873</td>
<td>Group lending techniques have no statistical significant effect on financial performance of DTSs in Kisii County.</td>
<td>Failed to reject H&lt;sub&gt;0&lt;/sub&gt;5</td>
</tr>
</tbody>
</table>

*Source: Researcher (2018)*
CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The main objective of this study was to investigate the effects of loan management techniques on financial performance of DTSs in Kisii County. Loan management techniques have an influence on the financial performance of DTSs, therefore, their effective adoption can either positively or negatively influence financial performance of the DTSs. For instance, DTSs perform loaning services in which they charge interest on the principal amount; this interest is repaid on a monthly basis together with the principal amount. The interest earned supports DTSs to run their operations such as payment of salaries, rents and other bills. Enhanced financial performance is important since it will keep the DTSs in business thus continued service delivery. There has generally been poor performance of DTSs in Kisii County, therefore, there is need to determine the effects of the loan management techniques that have been adopted to reverse the poor financial performance.

Several studies have identified different loan management techniques, however, this study focused on: interest rates, loan follow-ups, sharing customer credit information, loan appraisal and group lending. This study was guided by the following theories as discussed in the literature review section: Expectation theory by Brink (2011), Liquidity Preference Theory by Keynes (1936), and The Modern Portfolio Theory (MPT) by Markowitz (1952). Additionally, several studies revealed that different loan management techniques have different effects on financial performance of DTSs. For instance, a study by Kariuki and Ngahu (2016) on effects of interest rates on financial performance of MFIs revealed that there was a strong positive relationship between interest rates charged and financial performance of MFIs. However, the same study revealed that when the interest rates are higher, there are increased possibilities of loan default thus poor financial performance of MFIs.
This study used a descriptive survey research design and utilised census approach to select all staff working in the DTSs in Kisii County in the following job categories; Chief Executive Officer, credit managers, finance managers, Internal Auditors and loan field officers. The study focused on the following DTSs; Gusii Mwalimu, Kenya Achievers, Wakenya Pamoja, Egerton, Vision Point, Mwalimu National, and Afya.

5.1.1. Effect of Interest Rate Technique on Financial Performance

Results revealed that interest rate had a positive effect on financial performance of DTSs. However, this influence was not statistically significant. The conclusion that interest rate had a positive effect on financial performance of DTSs was based on the result of the regression analysis that revealed that a unit change in interest rate resulted in a 0.137 positive change in the financial performance of DTSs. However, the positive effect was not significant because the p-value of 0.434 was greater than 0.05. Based on these findings, the study failed to reject Ho1 because interest rate techniques have no statistically significant effect on financial performance of DTSs in Kisii County.

5.1.2. Effect of Loan Follow-up Techniques on Financial Performance

Results revealed that loan follow-ups had a positive effect on financial performance of DTSs. However, the influence of loan follow-ups on financial performance of DTSs was not significant. The conclusion that loan follow-ups had a positive effect on financial performance of DTSs was based on regression analysis results that revealed that one unit change in loan follow-ups resulted in a 0.201 positive change in the financial performance of DTSs. However, the positive effect was not significant because the p-value of 0.216 was greater than 0.05. Based on these findings, the study failed to reject Ho2 because loan follow-up techniques have no statistically significant effect on financial performance of DTSs in Kisii County.
5.1.3. Effect of Sharing of Customer Credit Information Techniques on Financial Performance

Results revealed that sharing of customer credit information techniques had a positive effect on financial performance of DTSs. This conclusion was based on the results of regression analysis that revealed that a unit change in sharing of customer’s credit information will result into a 0.049 positive change in the financial performance of DTSs. However, the positive effect was not statistically significant because the p-value of 0.768 was greater than 0.05. Based on these findings, the study failed to reject Ho3 because sharing of customer credit information techniques had no statistically significant effect on financial performance of DTSs in Kisii County.

5.1.4. Effect of Loan Appraisal Techniques on Financial Performance

Results revealed that loan appraisal had a statistically significant positive effect on financial performance of DTSs. This conclusion was based on regression analysis results that revealed that a unit change in loan appraisal techniques at p-value of 0.009 resulted in a 0.402 positive change in the financial performance of DTSs. Based on these findings, Ho4 was rejected because loan appraisal had a statistically significant positive effect on financial performance of DTSs in Kisii County.

5.1.5 Effect of Group Lending Techniques on Financial Performance

Results revealed that group lending techniques had a negative effect on financial performance of DTSs. This conclusion was based on regression analysis results that revealed that a unit change in group lending resulted in a -0.025 negative change in the financial performance of DTSs. However, the negative effect was not significant because the p-value of 0.873 was greater than 0.05. Based on these findings, the study failed to reject Ho5 because group lending techniques had no statistically significant effect on financial performance of DTSs in Kisii County.
Based on the overall regression model, it was established that 26.9% of the variations in financial performance of the DTSs can be explained by (interest rate, loan follow-ups, sharing of customer credits, loan appraisal and group lending). This further implied that loan management techniques had a positive effect on financial performance of DTSs. The regression model is statistically significant since the p-value (0.001) is less than 0.05. This implies that this model can be used to make predictions. It further implied that loan management techniques had a significant effect on financial performance of DTSs.

5.2 Conclusions

Based on the literature review, findings and discussions, the study concluded that loan management techniques have a positive effect on financial performance of DTSs in Kisii County. Therefore, loan management techniques such as interest rates, loan follow-ups, sharing customer credit information, and loan appraisal are likely to improve the financial performance of DTSs in Kisii County whereas group lending was revealed to have a negative effect on financial performance of DTSs therefore, likely to reduce the financial performance of DTSs. These findings concurred with findings by Ugirase (2013) that revealed that different loan management techniques such as credit policy, client appraisal, collateral substitutes and credit monitoring had a significant effect on financial performance of commercial banks in Rwanda. Further, these findings also concurred to other studies that focused on individual loan management techniques.

The first objective sought to determine the effect of interest rates on financial performance of DTSs, in which it was revealed that interest rates had a positive effect on financial performance of DTSs, however, the effect was not significant. These findings were similar to findings by Ndegwa, Waweru and Huka (2016) that reported that interest charged by MFIs influenced their financial performance despite being statistically significant unlike the current study that was not statistically significant. Interest rates can be good because the interest
charged during repayment can enhance DTSs profitability. DTSs compete among themselves and with other financial institutions like commercial banks, therefore they choose and use interest rates as a screening tool to determine good and bad risks. The expectance theory posits that DTSs can use interest rate as an incentive to encourage more borrowing or as a tool to discourage borrowing by raising the interest rates. In this case therefore, DTSs need to effectively adopt the use of interest rates if they are going to be competitive and if they are going to significantly improve their financial performance.

The second objective sought to determine the effect of loan follow ups on financial performance of DTSs, findings revealed that loan follow ups had a positive effect on financial performance of DTSs, however, the effect was not significant. These findings concurred to findings by Moronya, Onditi and Nyagol (2016) that reported a strong and positive link between credit monitoring and financial performance of SACCOs in Kisii County. Thus confirming the importance of loan monitoring in reducing NPLs. It can be concluded therefore that DTSs may not be laying strong emphasis on loan follow-ups thus the minimal impact of loan follow ups on financial performance of the DTSs. There is need to strengthen the department incharge of loan follow-up to ensure all borrowers are reached regarding their loan repayment. This would likely contribute to increased loan repayment thus enhanced financial performance. Investment in the strengthening of the loan follow-ups should be based on the modern portfolio theory to quantify the association that may exist between investment in loan follow-up and return for the DTSs through mathematical modelling.

The third objective sought to determine the effect of sharing customer credit information on financial performance of DTSs, findings revealed a positive effect that was not significant. These findings are similar to findings by Kioko and Wario (2014) that reported a positive and significant association between credit information sharing and the performance of the DTSs.
in Kenya. However, the current study was not statistically significant. This can be alluded to the fact that the DTSs are utilising customer credit information to determine which customers are likely to default thus rejecting their loan applications. There is need for the DTSs to strengthen and continue sharing their customer credit information with CRB if they are to gain a competitive edge in the market, and reduce the rate of non-performing loans thus enhanced financial performance. Since there is a cost associated with developing a list of loan defaulters and subscribing to CRB, some DTSs may be hesitant in adopting this strategy. However, there is need to focus on the expectancy and the modern portfolio theory that posits that expectation of benefits to be accrued from an investment should inform the decisions of the DTSs. For instance, the benefit that will accrue from easily determining perennial loan defaulters and denying them loans can save the DTSs significant losses emanating from loan default.

The fourth objective sought to determine the effect of loan appraisal on financial performance of DTSs. Findings revealed a positive and significant effect on financial performance of DTSs in Kisii County. These findings are similar to findings by Moronya, Onditi and Nyagol (2016) that revealed that client appraisal had a strong and positive relationship between client appraisal and financial performance of SACCOs in Kisii County. It can be concluded therefore, that DTSs in Kisii County adopted strict loan appraisal strategies that ensured only reliable clients who had a good repayment history were given loans. This assertion is supported by the expectation theory, the liquidity preference theory and the modern portfolio theory. Due to expected low loan default because of strict loan appraisal process, the DTSs are able to reduce their losses and increase their profits by issuing loans to clients who have been rated well in loan repayment. The modern portfolio theory can be utilised to calculate the benefit expected to accrue from a strict loan appraisal process whereas the liquidity preference theory can be utilised in determining whether the loans will be short or long-term.
The fifth objective sought to determine the effect of group lending on financial performance of DTSs in Kisii County. Findings revealed a negative but non-significant relationship between group lending and financial performance of DTSs in Kisii County. These findings contradict findings by Tundui and Tundui (2008) that revealed that group lending contributes to a reduction of transaction costs thus leading to improved profits among DTSs. It can be concluded that DTSs in Kisii County have not strongly embraced group lending which can be alluded to the fact that they have not adopted the expectation or modern portfolio theory in their decision making process. Therefore, there is need for development and adoption of a group lending policy so that the DTSs benefit from the associated advantages of group lending.

In conclusion based on the findings, the study failed to reject Ho1, Ho2, Ho3, and Ho5 whereas Ho4 was rejected. It can also be concluded that interest rates, loan follow-ups, sharing customer credit information, loan appraisal, and group lending can have a significant influence on financial performance of DTSs. This is demonstrated by the combined effect model which revealed that loan management techniques had a significant effect on financial performance of DTSs.

5.3 Recommendations

5.3.1 Recommendations for Policy and Practice

Based on the findings and conclusions of this study, the following recommendations are made:

DTSs should set their interest rates within the rates that are set by commercial banks. This will ensure they are competitive therefore enhancing loan uptake. Additionally, the DTSs should set their interest rates within the ranges which are set by the Central bank of Kenya.
This will enhance adequate control of the borrowing and repayment of loans thus enhancing financial performance of DTSs.

DTSs should develop policies that guide the loan follow up strategy. This is to ensure the strategies are consistent and formal. DTSs should enhance their credit monitoring techniques including the use of technology to determine the location of defaulters and how to reach them with ease.

SASRA should make it mandatory for DTSs to be registered with CRB and embrace credit information sharing. The data captured should include the history of the client whether positive or negative. Additionally, DTSs should frequently utilize CRB data with the aim of reducing the incidents of NPLs.

DTSs should develop policies that ensure that the loan appraisal process is detailed and thorough. The process should measure and quantify loan losses. A multi-level approval process should be initiated to ensure clients with a bad history are not issued with loans.

Policies governing group lending strategies should be developed to ensure DTSs embrace group lending with the benefit of joint liability which is likely to mitigate on loan defaulting. However, the policy should entail a thorough appraisal process to ensure only groups with trust and homogeneity are approved to prevent some members from taking advantage of other members.
5.4 Suggestion for Further Study

Based on the discussions and the findings of the study, the follow suggestions for further studies are made.

To begin with, a study on the effects of loan management techniques on financial performance in a different county should be undertaken. This will allow for comparative studies.

Secondly, another study on the challenges affecting the adoption of the regulations by CRB on sharing customer credit information should be conducted with the view of supporting DTSs to better utilise information shared by CRB to reduce NPLs.

Thirdly, another study should be conducted to determine the uptake of group lending among DTSs in Kisii County with the view of determining why there was a negative relationship between group lending and financial performance among the DTSs in Kisii County.

Lastly, another study should be conducted to determine stronger variables influencing financial performance of DTSs in Kisii County.
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APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

Kindly answer all the questions fully and honestly. The information given will be strictly be used for academic purpose only.

SECTION A: BIODATA INFORMATION

[Please tick the appropriate option]

1. Name of the Deposit Taking SACCO

..........................................................

2. Designation of the respondent

   1. Chief Executive Officer [ ] 2. Financial Manager [ ] 3. Credit Manager [ ]
   4. Internal Auditor [ ] 5. Loan field officer [ ]

3. Gender

   1. Male [ ] 2. Female [ ]

4. Education level

   1. Diploma [ ] 2. Undergraduate [ ] 3. Masters [ ] 4. PHD [ ]

5. Work experience

   1. Below 2 years [ ] 2. 3-5 years [ ] 3. 6-10 years [ ] 4. Above 10 years [ ]
SECTION B: LOAN MANAGEMENT TECHNIQUES AND FINANCIAL PERFORMANCE

1. Using the five point Likert scale below tick the appropriate statement in relation to interest rate and financial performance of the SACCO. (5- Strongly Agree (SA) 4- Agree(A) 3- Undecided(U) 2- Disagree(D) 1- Strongly Disagree(SD))

<table>
<thead>
<tr>
<th>Statement</th>
<th>5 SA</th>
<th>4 A</th>
<th>3 U</th>
<th>2 D</th>
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<tbody>
<tr>
<td>1. My SACCO uses interest rate as the most appropriate loan management technique</td>
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<td>2. Setting of interest rate depends on the characteristics of the borrower</td>
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<td>3. Setting of interest rate depends on the characteristics of operational factors</td>
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<td>4. The SACCO uses interest rates to control loan volume more so by increasing or decreasing interest rates</td>
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<td>5. Volatile interest rates affects the profitability of the SACCO</td>
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<td>6. Short term loans attracts high interest rates which in turn leads to high rate of non-performing loans</td>
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<td>7. Different loan products attract different interest rates depending on the risks involved</td>
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<td>8. Interest rate risks is highly considered when approving and disbursing loans</td>
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2. Using the five point Likert scale below tick the appropriate statement in relation to loan follow-ups and financial performance of the SACCO. (5- Strongly Agree (SA) 4- Agree (A) 3- Undecided (U) 2- Disagree (D) 1- Strongly Disagree (SD))

<table>
<thead>
<tr>
<th>Statement</th>
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<tbody>
<tr>
<td>1. My SACCO uses loan follow-ups to the borrowers as the most appropriate loan management technique</td>
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<td>2. Follow ups addresses the risks and helps to control breaches at early stages of the loan portfolio</td>
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<td>3. Follow ups enables the stakeholders to quickly determine activities or conditions that require attention before it becomes a problem</td>
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<td>4. Follow ups enables borrowers to use the loans for the purpose intended for hence repayment is prompt</td>
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<td>5. Appropriate loan follow ups leads to reduced incidences of loan defaulting</td>
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<td>6. You frequently make calls to your client to minimize loan defaulting cases</td>
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<td>7. Loan follow ups is costly to my SACCO</td>
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<tr>
<td>8. Loan follow up costs once fully factored it makes loans expensive hence high incidences of defaulting</td>
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</table>
3. Using the five point Likert scale below tick the appropriate statement in relation to sharing of customer credit information and financial performance of the SACCO. (5- Strongly Agree (SA) 4- Agree (A) 3- Undecided (U) 2- Disagree (D) 1- Strongly Disagree (SD))

<table>
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<tr>
<th>Statement</th>
<th>5 SA</th>
<th>4 A</th>
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<tbody>
<tr>
<td>1. My SACCO uses sharing of credit information of borrowers as the most appropriate loan management technique</td>
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<td>2. Listing of your clients who have defaulted loans has improved the loan repayment which in turn leads to improved firm performance</td>
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<td>3. My Sacco is registered with Credit Reference Bureau (CRB) with an aim of reducing loan defaulting</td>
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<td>4. My SACCO consult CRB before lending money to the borrower</td>
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<td>5. Sharing of credit information of the borrower helps in tracking of the borrower’s credit records hence enhancing credit repayment</td>
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<td>6. Sharing of credit information of the borrower has reduced the borrowers’ over-indebtedness</td>
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<td>7. Sharing of credit information of the borrower has led to increased customers’ access to credit</td>
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<td>8. Sharing of credit information of the borrower has improved terms of credit</td>
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4. Using the five point Likert scale below tick the appropriate statement in relation to loan appraisal and financial performance of the SACCO. (5- Strongly Agree (SA) 4- Agree (A) 3- Undecided (U) 2- Disagree (D) 1- Strongly Disagree (SD))

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<th>Statement</th>
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<tbody>
<tr>
<td>1. My SACCO uses loan appraisal as the most appropriate loan management technique</td>
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<td>2. My SACCO uses capacity as a parameter of borrower appraisal</td>
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<td>3. My SACCO uses cash as a parameter of borrower appraisal</td>
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<td>4. My SACCO uses collateral as a parameter of borrower appraisal</td>
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<td>5. My SACCO uses conditions as a parameter of borrower appraisal</td>
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<td>6. My SACCO uses control as a parameter of borrower appraisal</td>
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<tr>
<td>7. Appraisal makes the borrowers to use the loans for the intended purpose hence reducing the risk of loan defaulting</td>
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<td>8. My SACCO uses bankability that is past month bank statements, asset and liabilities in order to loan repayment capability of the client</td>
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<td>9. My SACCO applies field investigation and market value of asset to determine the capability of the borrower to repay the loan</td>
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5. Using the five point Likert scale below tick the appropriate statement in relation to group lending and financial performance of the SACCO. (5- Strongly Agree (SA) 4- Agree(A) 3- Undecided(U) 2- Disagree(D) 1- Strongly Disagree(SD))

<table>
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<th>Statement</th>
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<tbody>
<tr>
<td>1. My SACCO uses group lending as the most appropriate loan management technique</td>
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<tr>
<td>2. Using of joint liability to lend money to the borrowers instead of physical collateral is more common</td>
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<td>3. You use social ties to screen, monitor and enforce loan repayment in your SACCO</td>
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<td>4. Group members coordination of their repayment decisions and cooperation for mutual benefit leads to reduced monitory costs and reduced nonperforming loans</td>
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<td>5. Peer effects actually improve repayment rates and act as stabilizing force</td>
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<td>6. Frequent group meetings reduces the incidences of individual default</td>
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<td>7. Group lending leads to reduced interest rate risks</td>
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<td>8. Group lending has generally reduced the number of defaulters in my SACCO</td>
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6. Using the five point Likert scale below tick the appropriate statement in relation to financial performance of the SACCO. (5- Strongly Agree (SA) 4- Agree (A) 3- Undecided (U) 2- Disagree (D) 1- Strongly Disagree (SD))

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<tbody>
<tr>
<td>1. Application of loan management techniques lead to increased level of profitability</td>
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<td>2. Application of loan management techniques leads to increased volume of NPLs to gross loans ratio</td>
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<td>3. Application of loan management techniques leads to a rise in EPS to shareholders</td>
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Thanks for your response
APPENDIX II: INTRODUCTION LETTER

Dear Sir/Madam,

I am a Postgraduate student in Kisii University undertaking Master of Business Administration Degree. I am conducting a research on Effects of Loan Management Techniques on financial performance of Deposit Taking Saccos in Kisii County, Kenya.

Am kindly requesting you to provide the required information by filling in the questionnaire provided below. Your views and answers will be considered very important in this study.

Kindly note that any information given will be treated with utmost confidentiality and will be used for academic purposes only.

Thank You for your anticipated cooperation.

Yours Faithfully,

Janeffer N. Murage.
### APPENDIX III: DATA COLLECTION FORM

Name of the Deposit Taking SACCO…………………………………………

<table>
<thead>
<tr>
<th>Years</th>
<th>Volume of total loans</th>
<th>Volume of non-performing loans</th>
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<th>No of groups obtaining loans</th>
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## APPENDIX IV: LIST OF LICENSED SACCO SOCIETIES IN KISII COUNTY

<table>
<thead>
<tr>
<th>NO.</th>
<th>NAME OF SOCIETY</th>
<th>POSTAL ADDRESS</th>
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<tr>
<td>1.</td>
<td>AFYA SACCO SOCIETY LTD</td>
<td>P.O.BOX 11607 - 00400, NAIROBI.</td>
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<tr>
<td>2.</td>
<td>EGERTON SACCO SOCIETY LTD</td>
<td>P.O.BOX 178 - 20115, EGERTON.</td>
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<td>3.</td>
<td>GUSII MWALIMU SACCO SOCIETY LTD</td>
<td>P.O.BOX 1335 - 40200, KISII.</td>
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<td>4.</td>
<td>KENYA ACHIEVAS SACCO SOCIETY LTD</td>
<td>P.O. BOX 3080-40200, KISII.</td>
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<td>5.</td>
<td>MWALIMU NATIONAL SACCO SOCIETY LTD</td>
<td>P.O.BOX 62641 - 00200, NAIROBI.</td>
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<td>6.</td>
<td>VISION POINT SACCO SOCIETY LTD</td>
<td>P.O.BOX 42-40502, NYANSIONGO.</td>
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<td>7.</td>
<td>WAKENYA PAMOJA SACCO SOCIETY LTD</td>
<td>P.O.BOX 829 - 40200, KISII.</td>
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</table>

**Source:** SASRA (2017)
APPENDIX V: APPLICATION LETTER FOR A RESEARCH PERMIT

KISII UNIVERSITY

Ref: KSU/SBE/CBM12/10280/12

Wednesday, 19th July, 2017

The Director
National Commission for Science, Technology &
Innovation (NACOSTI)
NAIROBI

Dear Sir,

REF: APPLICATION FOR A RESEARCH PERMIT FOR
JANEFFER NJERI MURAGE REG. NO. CBM12/10280/12

The above named is a Masters student in our institution who intends to carry out a
Research. The intended study is titled: "Effect of Loan Management Techniques on
Financial Performance of Deposit Taking Saving and Credit Cooperative Societies in
Kisii County, Kenya.

The purpose of this letter is to request you to give him a research permit to enable him
conduct the research.

Thank you.

Dr. Christopher Ng'amo, PhD
DEAN SCHOOL OF BUSINESS AND ECONOMICS

CN/pa
APPENDIX VI: RESEARCH PERMIT

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 3310571, 2219429
Fax: +254-20-318243, 318249
Email: dp@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Ref. No. NACOSTI/P/17/91643/18523

Date 31st July, 2017

Janeffer Njeri Murage
Kisii University
P.O. Box 402-40800
KISII.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Effect of loan management techniques on financial performance of deposit taking saving and credit cooperative societies in Kisii County, Kenya,” I am pleased to inform you that you have been authorized to undertake research in Kisii County for the period ending 28th July, 2018.

You are advised to report to the County Commissioner and the County Director of Education, Kisii County before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

Cordially,

GODFREY P. KALERWA, MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kisii County.

The County Director of Education
Kisii County.
EFFECTS OF INTEREST RATES ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SACCOS IN KISII COUNTY, KENYA

1° Janeffer Murage muragejaneffer9@gmail.com
2° Dr. James Muya muyajr@gmail.com
3° Dr. Vitalis Mogwambo mogwambov@yahoo.com

1, 2 Kisii University, Kenya
3 Jaramogi Oginga Odinga University of Science and Technology, Kenya

Abstract

Deposit Taking SACCOS play a significant role in the growth of the economy by allowing clients to deposit money. They also allow customers to take loans that they can use to invest in various ventures. DTSSs adopt various strategies to ensure the loans issued to customers are well serviced and generate income to support effective and efficient operations of the DTSSs. Among the strategies adopted is the use of interest rates where customer deposits act as collateral. However, there is a dearth of literature on the effects of interest rates as a loan management strategy on the financial performance of Deposit Taking SACCOS in Kisii County. Therefore, this study sought to determine the effect of interest rates on financial performance of Deposit Taking SACCOS in Kisii County. To realize the objective of the study, a descriptive survey research design that comprised of the seven DTSSs operating in Kisii County was adopted. The DTSSs are: Gusii Mwalimu SACCOS, Kenya Achievers SACCOS, Wakenya Panwoja SACCOS, Egerton SACCOS, Mwalimu National SACCOS, Ahya SACCOS and other point SACCOS. Census sampling technique was adopted. Seventy respondents were sampled and they included staff in the following cadre: Chief Executive Officers, Credit Managers, Finance Managers, Internal auditors and Loan field Officers. Questionnaires were utilized to gather primary data. Data was analyzed using descriptive and multiple regression. The study revealed that interest rate had a positive effect on financial performance of DTSSs in Kisii County. It was also revealed that all DTSSs adopted interest rate technique as a strategy to generate income from the loans issued. The study however recommends that DTSSs should review their interest rates regularly based on the cap set by the central bank, this will assist in controlling the borrowing rate, enhance the repayment of the loans hence improving the financial performance of the DTSSs and also allow the DTSSs to effectively compete with commercial banks.

Keywords: Deposit Taking, Effects, financial performance, Interest rate, loans, SACCOS

Introduction

The Deposit Taking Sacco Societies (DTSSs) is an integral part of the larger Sacco sub sector in Kenya which is majorly concerned with Deposit Taking and Non-Deposit Taking Sacco Societies. The deposits taken by the DTSSs are non-withdrawable but instead they are used as collaterals for loans and they are refundable upon withdrawal of membership (SASRA, 2014). When the DTSSs issue loans to clients, they ensure the loans are performing and profitable. This is done through charging interest for all loans issued. Interest rates are techniques adopted by lenders to ensure loans issued to customers are serviced and ensure the organization generates income to ensure efficient and effective operations. Various studies have been conducted on the
APPENDIX VIII: PLAGIARISM REPORT

EFFECTS OF LOAN MANAGEMENT TECHNIQUES ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN KISII COUNTY, KENYA, JANEFFER NJERI MURAGE

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