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The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com

Vol. 11, Iss.3, pp 776 – 797, October 29, 2024. www.strategicjournals.com, © Strategic Journals

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Accepted: October 11, 2024

DOI: http://dx.doi.org/10.61426/sjbcm.v11i4.3116

ABSTRACT

The current study endeavored to find out the influence of credit management practices on loan portfolio performance of deposit taking Sacco's in Nairobi County, Kenya. Specifically, the study attempted to establish the influence of loan repayment period, collection effort, collateral security and credit appraisal process on loan portfolio performance. The study reviewed Securitization theory, Asymmetry Information Theory (AIT), Modern Portfolio Theory (MPT) and agency theory to try and explain the relationship between credit management practices and loan portfolio performance. This study employed a descriptive survey design. The study targeted 167 credit managers and credit officers of the forty-six-deposit taking Sacco's in Nairobi County-Kenya. Stratified random sampling technique was used to sample 118 respondents. The study used structured questionnaire to collect primary data. The study used descriptive statistics, which included the use of frequencies, means, and standard deviation. The research instrument was reliable as indicated by Cronbach Alpha values of greater than 0.7. Data was analyzed using both descriptive and inferential analysis with aid of SPSS version 26. The study concluded that credit risk management practices significantly influence loan portfolio performance among Deposit Taking Saccos in Nairobi. The study recommended that credit committees of deposit taking Sacco's should always seek to review some policies such loan repayment period, legal procedure, and employee skill development in order to maximize profits. The study recommended that DTS should involve credit/field officers and customers in formulating viable credit terms and customized credit collection policies that positively attract customers as these will reduce loan delinquency, improve market share and consequently influence non-performing loans. DTSs should craft viable and customized collateral security measures meant to reduce loan delinquency ratios while at the same time ensuring DTS's reputation and market share.

Key words: *Repayment Period, Collection Effort, Collateral Security, Credit Appraisal Process*

CITATION: Nabiba, M., & Miroga, J. (2024). Credit management practices and loan portfolio performance of deposit taking SACCOs in Nairobi City County, Kenya. *The Strategic Journal of Business & Change Management,* 11 (4), 776 – 797. http://dx.doi.Org/10.61426/Sjbcm.v11i4.3118

INTRODUCTION

A financial institution's loan portfolio performance shows how well it achieves its lending goals, which adds to the broader organizational aim of maximizing shareholder value (Ssekiziyivu, Mwesigwa & Nkote, 2017). Not just SACCOs but all companies in the lending industry depend on the profitability of their loan portfolios (Fujo & Ali, 2016). Lending is the primary commercial activity of SACCOs. Because of this, lent-out money assets account for a significant percentage of owners' total investment. As a result, the health of the company's loan portfolio has a significant bearing on the company's overall health and ability to continue as a going concern. An institution's capacity to actively manage risk exposure and profitability depends on how well it can manage its loan portfolio, which is by far the most important asset of SACCOs (Shisia & Sang, 2014).

The SACCO industry has played a significant role in the economic growth of the nation and the achievement of Vision 2030. To prevent giving credit to those who can't pay their debts, loan portfolio management is essential for every business that accepts deposits to lend out (Gamba & Komoi, 2015). The loan portfolio, which makes up a large part of most banks' assets, is highly illiquid and subject to credit risk (Koch & MacDonald, 2010). Furthermore, George (2015) established that for majority of financial institution's loan portfolio is the primary source of risk and as such, the loan portfolio is ideally supposed to be the schemes' largest asset. He added, "It should also be remembered that, since most small business lending is not backed by bankable collateral, the quality of the loan portfolio is completely essential."

According to Mburu et al. (2020), credit management procedures have an impact on how well commercial banks in Kenya perform while making loans. Positivism was the research philosophy utilized in this study, which used an explanatory research design. A census method was utilized to gather data on Kenya's 44 commercial banks, the intended audience. Primary and secondary data were used to compile this report. We utilized structured questionnaires to collect primary data on credit management processes and examined existing bank loan records for a period of four years (2015-2018) to obtain secondary data on loan amounts granted and non-performing loans during this time period. Commercial banks in Kenya increased their loan performance substantially when debt collection and lending strategies were integrated, according to the study's results. Despite this, customer satisfaction surveys found no connection between commercial banks' lending results and customer satisfaction.

The effect of credit management techniques on deposit taking microfinance institution loan performance in Kenya was examined, according to Njenga (2014). There was a descriptive research approach utilized in this study. According to the findings of this research, nine (9) MFIs licensed by Kenya's central bank (CBK, 2013). A census survey, rather than a sample, was utilized in this research. The whole population was examined. Kenya Women Finance Trust (KWFT) DTM Limited, Faulu Kenya DTM Limited, the Small and Micro Enterprise Program (SMEP), and Remu DTM Limited were among the DTMs examined for this report. Analyses of main and secondary data were performed. For this study, primary data was collected by means of a well-designed questionnaire. Data was obtained from secondary sources due to the quantitative nature of the information. Despite the fact that most deposit-taking microfinance institutions had adopted credit control procedures, the gross loan portfolio had increased consistently over time, according to the results. Also, it was observed that the amount of non-performing loans increased progressively

Credit management techniques govern the lending process in microfinance organizations by defining the rules and procedures that must be followed to guarantee seamless lending. Firms run the danger of default if appropriate risk management procedures aren't put in place before the loan is signed off on. To lend, financial institutions receive

deposits from the public against which they offer loans and other types of advances. Since banks incur the expense of carrying these deposits, they engage in lending operations to create income. Margin, interest, fees, and commissions are the main income streams (Fiordelisi, Marques-Ibanez & Molyneux, 2010).

Credit management techniques include rules and procedures put in place by credit managers to assist financial organizations when making loans to their customers (Arif, Abrar & Afzal (2018). According to Pandley and Saurina (2016), since lending institutions face a high level of credit risk, they must have a strong credit management system in place to handle such risks. According to Mulumba's research, having a good credit management system reduces the financial risk associated with lending and improves advances and overall credit performance (2019). Credit management's primary aim is to reduce the default risk, which is why different procedures like client evaluation and loan lending policy are used (Wijesinghe & Tennakoon, 2018).

The loan portfolio refers to the overall amount of money disbursed in different loan products, as well as the various kinds of borrowers (Sinkey & Greenwalt, 2011). They go on to assert that, wage loans, community guaranteed loans, individual loans, and corporate loans make up the loan portfolio. Most financial institutions' survival, according to Puxty, Anthony and Dodds (2011), is entirely dependent on any effective loaning scheme that pirouette around funds and loan re-payments advanced to them by customers.

The profitability or return on investments in various loan products is known as efficiency in the loan portfolio. Generally, it takes into consideration the number of clients asking for loans, the amount they purchased, the prompt payment, the guarantee of collateral against loans, the rate of arrears and the number of credit products available on chains (Rajan et al., 2013). There has been increasing trend of non-performing loan (%) from 2016 to 2020. In 2017, it rose from 5.23% in 2016 to 6.14% while in 2018; it rose to 6.3% from 6.14. However, in 2019, it reduced to 6.15% before jumping to 8.39% in 2020.

Problem Statement

A strong credit management system is essential to the success of SACCOs in Kenya since the bulk of their revenue comes from interest payments on loans, they have granted members (Puxty et al., 2015). However, Kenyan SACCOs, according to empirical research, have significant performance difficulties in their loan portfolios. According to SASRA (2020), the amount of non-performing loans in the SACCO sector increased by a startling 2.36 billion between 2018 and 2019, indicating that loan portfolio performance has deteriorated.

When loan repayments have been late or default occur, loan payment are stalled, costs accrue and service declines over time. Loan defaulting are identified as a main cause for members' removal owing to a lack of faith in SACCOs in the overwhelming of liquidation recommendations reports. Presence of robust credit management practices enhances loan portfolio performance (Mburu, Mwangi & Muathe, 2020; Abuto, 2017). In its study, Lagat (2016) stated that co-operatives struggling to maintain their borrowers' portfolios risk being dominated by the debtors since they are gradually losing their authority as a result of lower cash flow and increasing bad debt.

There have been a few studies looking at credit management methods, but the results have been varied. According to Mburu et al. (2020), credit management procedures have an impact on how well commercial banks in Kenya perform while making loans. According to the findings of the research, commercial banks in Kenya's loan performance improved significantly when debt collection and lending policies were combined. There was no substantial impact on commercial bank loan performance from client assessment in Kenya. Kenyan deposit-taking microfinance firms' loan performance will be studied by Njenga (2014) to see how credit management methods affect it. Despite the fact that most deposit-taking

microfinance institutions had adopted credit control procedures, the gross loan portfolio had increased consistently over time, according to the results. Also, it was observed that the amount of non-performing loans increased progressively. The researcher sought to know how credit management practices affect deposit-taking Saccos' loan portfolio performance.

Objectives of the study

The main objective was to determine the influence credit management practices on loan portfolio performance of deposit taking saccos in Nairobi City County, Kenya. The study was guided by the following specific objectives:

- To establish the influence of loan repayment period on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya.
- To examine the influence of collection effort on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya.
- To examine the influence of loan collateral security on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya.
- To examine the effect that credit appraisal process had on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya.

LITERATURE REVIEW

Asymmetry Information Theory (AIT)

George Akerlof introduced the asymmetric information theory in 1970. In his hypothesis, he argued that market figures are used by consumers to assess the value of products. However, Steven and Anna (1994) argued that knowledge asymmetry occurs in the debt sector where the consumer has details about the market centered on the underlying risks and ROI projects. Nonetheless, there is insufficient knowledge about the consumer.

Geitangi (2015) submitted that, whenever Sacco's carry out credit assessments, careful research should be carried out so as to gather sufficient and accurate information about the consumer, whether from CBK or another source. Both qualitative and quantitative techniques are valuable in evaluating a borrower, though there are a few disadvantages, especially with qualitative approaches because they are subjective. The attitudes of borrowers are investigated using a qualitative method that assigns numbers. This approach is useful because it decreases production costs and subjective decisions, all of which can contribute to bias.

Modern Portfolio Theory

MPT is a key theory in credit management and savings which aims to identify the most efficient mix of assets to maximize the anticipated portfolio returns for specified exposure levels (Markowitz, 2000). The MPT is founded on the assumption that investors are risk-averse and choose a lower risk portfolio rather than a greater risk portfolio for a given return.

Hubbard and Douglas (2007) describe portfolio theory as a mathematical formula that clearly communicates the idea of diversified asset investment combinations, with the aim of selecting the assets that together represent a lower risk than any one asset. According to the idea, this combination is conceivable when each asset goes in the opposing direction. An investor must study the movement of values of the planned investment in the asset according to Omisore, Munirat and Nwufo (2012) and determine which assets are moving in the opposite direction. Even if the returns on assets are neither negative nor positive, risk diversification lowers the risk. Risk is defined by Omisore (2012) as the standard deviation of return, or how far the actual return deviates from the expected return.

Agency Theory

The agency theory was hypothesized by (Jensen & Meckling, 1976) and postulates that firm management are shareholders agents who are the actual owners of respective companies. This theory is founded on the premise that individual stakeholders interests at the firm will divert or conflict. In this regard, engaged company agents

need to act in an appropriate manner so as to enhance the overall wellbeing of the principals. They therefore need not engage in activities that would lead to compromise of their independence while they execute their tasks. In essence, both principals and agents always seek to maximize utility so as to capitalize on potential returns. This common agenda may lead to the collision of the interests of both parties.

The company agents may at times not act in accordance with the principals best interests. This may be caused by various factors for instance differences in risk appetite. This may in turn lead to agents not fully exploiting available opportunities hence not optimally add value to principals objectives and expectations. In the engagement of both principals and agents, risk preferences need to clear and made initially so as to minimize the occurrence of agency problem (Jensen and Meckling, 1976). This theory explains how credit officers of the Deposit taking Saccos act on behalf of the DT-Saccos and its shareholders and directors to ensure that the credits yield interests for the lending institutions through collection efforts.

Conceptual Framework

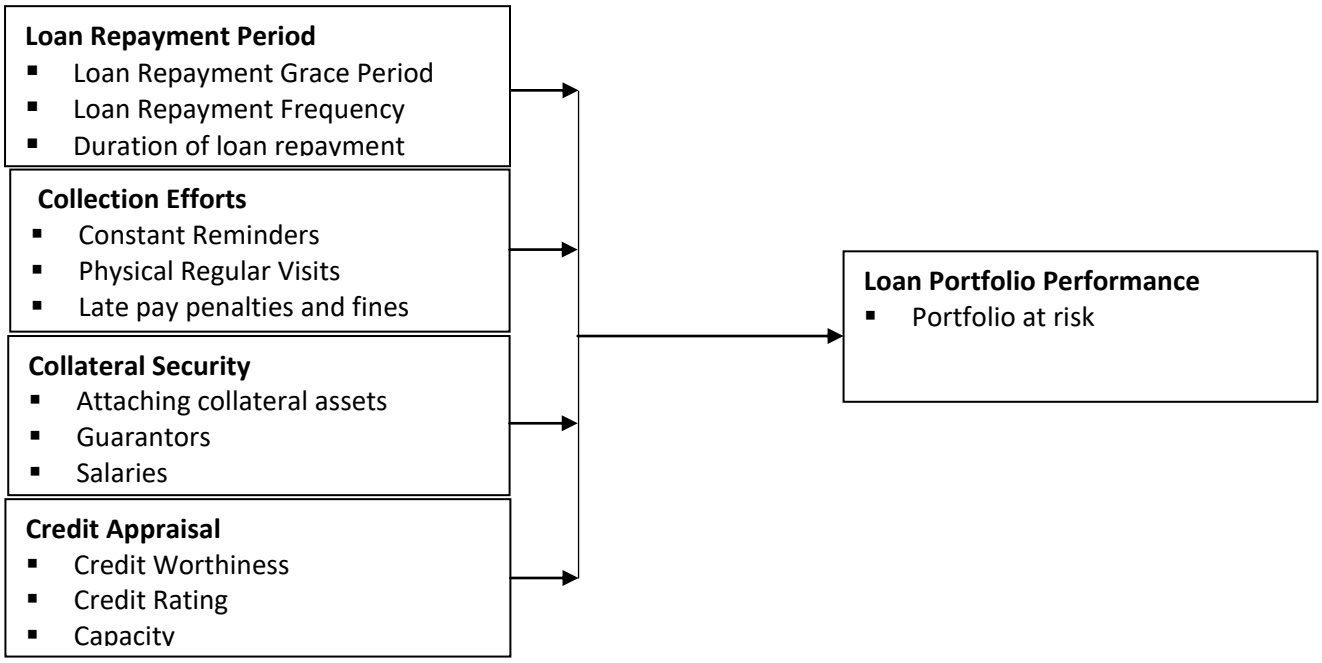

Figure 1: Conceptual Framework

Empirical Literature

Loan repayment period and loan portfolio performance

Determinants of Microcredit Repayment in Malaysia: The Case Study of Agrobank was conducted by Roslan and Karim (2009). This study's data was compiled from a survey of 2630 people conducted across 86 Agrobank offices in Malaysia. Probit and logit models were used in the research to determine the most important predictors of microcredit repayment. Researchers found that a shorter payback term may result in the borrower not having produced enough income to cover the loan payment. This was one of their findings. Longer repayment periods, on the other hand, are harmful to borrowers since they prevent them from getting new loans until the old ones are repaid. This means that the default rate may be harmed by a shorter or longer payback term.

Research conducted in Ethiopia by Kabede, Tegegn, and Tafese (2016) sought to examine and identify the main variables that influence small-scale business loan repayment performance and the major difficulties faced by MFIs in the Wolaita and Dawuro region. In this regard, researchers gathered and evaluated data from primary and secondary sources utilizing two limit Use of the Tobit model. Borrowers' ability to repay their loans was shown to be strongly influenced by the payback duration. The likelihood of loan payback increases substantially if the repayment term is appropriate for the borrower's financial circumstance. As a result, the institution must provide customers with enough time to put their borrowed loans to good use and plan ahead of time to collect loans that will enable them to sell their company's product.

Collection Effort and loan portfolio performance

Collection efforts were also taken into account in certain research while determining the NPLs rate. Dickerson (2016) utilized a descriptive survey methodology and a sample of 125 respondents to study collection policy and loan efficiency among UK SACCOs. Structured questionnaires were used along with descriptive and inferential statistics to assess the study data. Study results show that collection policy is a guide that guarantees timely payment and frequent collections. One of the reasons for this is that not all customers fulfill their responsibilities; some just take them for granted, others simply forget, and still others simply do not have a culture of paying unless convinced to do so.

Hu (2016) investigated the loan-performance of Taiwan's banking industry. They studied from 2010 to 2020. Based on secondary data, the research used a panel data method. This study stated that government-owned banks with aggressive collection operations had a lower NPL rate. It also discovered a link between collection attempts and the number of non-performing loans. It hasn't been shown that diversity has a substantial effect. According to research, there is a strong link between non-performing loans (NPLs) and many macroeconomic variables, including collection attempts. Annual GDP growth, credit growth, real interest rates, yearly inflation, real effective exchange rates, annual unemployment, broad money supply (M2), and GDP per capital are examples of these. This research solely looks at real GDP per capita, interest rates, and total outstanding loans, including leases and non-performing loans (NPLs).

Collateral Security and loan portfolio performance

Djankov, McLiesh and Shleifer (2007) reviewed empirical research on the impact of credit management on private credit repayment in 129 Eastern European nations, interviewing financial managers of financial institutions and analyzing data using mean and standard deviation. In the study's results, credit management techniques were shown to be important in enabling loan payback.

An investigation of the credit assessment process and repayment of bank loans in Kampala was done by Mulumba (2019), using Barclays as a case study. To find out whether or not Barclays bank delayed loan approvals, researchers questioned 73 people. They also discovered that the bank levied 21 commitment fees to all of its clients, new and old. Barclays bank demanded collateral for loans above UGX 20 million, according to data analyzed using frequencies and tables.

A study conducted in Kisii County, Kenya by Muriungi and Maina (2021) looked at the impact of collateral utilized by small and medium microenterprises on commercial bank loan performance. The study applied descriptive design and census on the fourteen (14) commercial banks and established that most banks prefer motor vehicles on security in order to reduce the risk of default. Further most banks discourage clients from using land and buildings as collaterals.

Credit appraisal process and loan portfolio performance

Iftikhar (2016) looked at the relationship between KSE-listed Pakistani commercial banks' credit risk management and financial performance. Ten

institutions were chosen to represent the whole Pakistani banking industry for this purpose. The study found that credit risk management has an impact on the financial performance of Pakistani commercial banks as measured by ROE and ROA, with non-performing loans and capital adequacy ratios as indicators of credit risk management. A statistical model had been developed to measure this relationship. The panel regression model was used to examine the data. The study's findings show that credit assessment procedures have a substantial effect on Pakistan's commercial banks' financial performance.

Customer of client assessment was examined by Gichuhi and Omagwa (2020) in Nyandarwa County, Kenya, to see whether it had any impact on SACCO loan portfolio performance. The study was conducted with the use of an explanatory research design. Nyandarua County's 25 Savings and Credit Cooperative Societies were the subject of a census. Primary data was gathered through administering questionnaires to the participants. Expert opinion and pre-testing were used to gauge validity. It was decided to use Cronbach's Alpha as a measure of dependability for this study. When the p value is less than 0.05, it tells us that customer evaluation has an impact on loan portfolio performance, we may conclude that it is statistically significant (p=0.001).

METHODOLOGY

This study employed a descriptive survey design. The study targeted 167 credit managers and Credit Officers of the forty-six-deposit taking Sacco's in Nairobi County-Kenya. The target population was 167. The sampling frame for this study comprised of credit managers and credit officers of the forty-six-deposit taking Sacco's in Nairobi County-Kenya. The sample size of 118 was obtained using Yamane's formula, which is a method for estimating sample size (Yamane, 1967). The specific sample size that was utilized in the research is shown below.

$$n = \frac{N}{1 + \mathrm{N}(e^2)}$$

Where;

n= sample size

N= population

e= Margin of error, taken as 0.05

Substituting the values in the formula;

$$n = \frac{167}{1+167(0.05^2)} = 117.8130511$$

n = 118 respondents

In order to select respondents that participated in the study, stratified random sampling technique was used.

The study used structured questionnaire to obtain standard data that can be compared, summed, and subjected to further statistical analysis. The structured questionnaire was the primary data collection tool. The researcher established validity and reliability of research instruments on five Saccos in Nakuru County as a pilot project.

A pilot test was performed to determine the data collection instrument's dependability and validity. Cronbach's alpha was used as a measure of internal correctness and dependability in the proposed study.

IBM Statistical Package was used to analyze the data collected via questionnaire. For the analysis, descriptive statistics refers to statistical methods that do not falsify relationships but help in the interpretation of the results (Kothari, 2010). As a consequence, descriptive statistics aided the researcher in efficiently organizing data in the analysis. Correlation analysis was used to determine the course, strength, and significance of relationships between variables. The degree to which a change in the independent variable induced a change in the dependent variable was determined using regression analysis.

For modeling the relationship between the depended variable [loan portfolio performance] and

independent variables [Loan repayment Period, collection effort, loan collateral security and credit appraisal process], the following multiple regression equation was applied;

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

Whereby: **Y (LPP)** = Loan Portfolio Performance

β_0 = Constant

$\beta_1 - \beta_3$ = Measure of sensitivity of variable X to changes in LPP

X_1 = Loan repayment Period (LRP);

X_2= collection effort;

X_3= loan collateral security

X_4= credit appraisal process

ε = Error Term.

RESEARCH FINDINGS AND DISCUSSIONS

Response Rate

One hundred and eighteen (118) questionnaires were distributed to respondents, one hundred and two (102) were received this represented 86.4% response rate and 16 questionnaires were not received this accounted for 13.6% of the total questionnaires distributed.

Descriptive Statistics

Descriptive statistics are used to define and describe the properties of a set of data (Mboya, 2019). The presentation of descriptive statistics is based on the frequencies, percentage, mean and standard deviation of study variables. These variables were

loan repayment, collection effort, loan collateral security and credit appraisal which were independent variables while loan portfolio performance was dependent variable. The respondents were asked to indicate their level of agreement from 1 strongly disagree, 2-Disagree, 3-uncertain, 4-agree and 5 strongly agree. The findings are as follows.

Loan repayment period

The first objective of this study was to establish the influence of loan repayment period on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya. To achieve this, the researcher queried the respondents about the loan repayment in respect to loan portfolio performance. The responses are as shown in Table 1 in which percentage are presented inside brackets while frequency outside brackets.

Table 1: Loan Repayment

Loan repayment	5	4	3	2	1	Mean	SD
The Sacco constantly analyzes the credibility of the applicant in order to establish the conditions of the loan repayment period for the applicant.	51 (50)	12 (11.8)	27 (26.5)	6 (5.9)	6 (5.9)	9.94	3.25
The loan repayment term influences a client's willingness to repay a loan.	15 (14.7)	36 (35.3)	30 (29.4)	15 (14.7)	6 (5.9)	9.38	3.10
The risk level defines the period for the repayment of the loan.	30 (29.4)	36 (35.3)	15 (14.7)	15 (14.7)	6 (5.9)	9.68	3.22
The grace period provided before repayment is favorable.	36 (35.3)	36 (35.3)	18 (17.6)	9 (8.8)	3 (2.9)	9.91	3.08
The Sacco evaluates the customer's repayment plan every time he or she applies for a loan.	36 (35.3)	24 (23.5)	21 (20.6)	15 (14.7)	6 (5.9)	9.68	3.27
Not more than twice have some of the loan periods in the loan portfolio undergone restructuring.	36 (35.3)	21 (20.6)	27 (26.5)	12 (11.8)	6 (5.9)	9.68	3.25
Overall Score						3.71	1.2

N=102; KEY: 1= Strongly Disagree; 2= Disagree; 3=Uncertain; 4= Agree; 5=Strongly Agree; SD= Standard Deviation.

From Table 1, the results indicated that 50.0% of the sampled respondents strongly agreed that the Sacco constantly analyzes the credibility of the applicant in order to establish the conditions of the loan repayment period for the applicant while 11.8% agreed with a mean of 394. On the other hand, 26.5% of the respondents were uncertain in regard Sacco constantly analyzes the credibility of the applicant in order to establish the conditions of the loan repayment period for the applicant. The results also indicated that few of the respondents (35.4%) agreed that the loan repayment term influences a client's willingness to repay a loan while 14.7% of the respondent strongly agreed. On the hand, 14.79% disagreed and 5.9% strongly disagreed that the loan repayment term influences a client's willingness to repay a loan with a mean of 3.68.

In regards to the risk level defines the period for the repayment of the loan, 29.4% of the respondents strongly agreed that the risk level defines the period for the repayment of the loan while 35.3% agreed with a mean of 3.453. The results also revealed that majority of the respondents were in agreement with the grace period provided before repayment is favorable of which 35.3% strongly agreed and the same percentage agreed on that assertion with a mean of 3.91although 15.6% of the respondents disagreed an indicated that some suppliers did not supply at the right price

The results further revealed that 35.8% of the respondents strongly agreed that the Sacco evaluates the customer's repayment plan every time he or she applies for a loan while 23.5% of the respondents agreed on the same. On the other hand, 20.6% of the respondents were uncertain an indication that some of the Sacco evaluated the customer's repayment plans every time he or she applies for a loan with a mean of 3.68. Lastly, 35.3% of the respondents strongly agreed that not more than twice have some of the loan periods in the loan portfolio undergone restructuring and 20.6% agreed on the same with a mean of 3.68. Averagely, the level of loan repayment had a mean of 3.71 implying that majority of the respondents were in agreement with loan repayment statement.

The results on loan repayment period showed that short loan repayment period is a cause of nonperforming loans according to Kirui (2014). These imply that a short loan repayment period can easily lead to a non-performing loan. Despite this, findings revealed that there is positive relationship between good loan repayment and a long repayment period. According to Malimba and Ganesan, (2009), an understanding of socio-economic factors affecting loan repayment behavior of clients is essential for outreach and sustainability of mushrooming cooperative societies in Kenya. Consequently, it can be argued although the foregoing relationship is significant, as the low repayment period increases, it will reduce the cash flow burden. Ultimately if the repayment period increases, it will reduce the possibility of losses in SACCOs. This is contract with where the SACCO's long repayment is considered to be more at risk due to the fact that the future is uncertain.

Collection effort

The second objective of this study was to examine the influence of collection effort on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya. So as to achieve this objective, the study sought to establish the degree to which collection effort influenced loan portfolio performance. The findings are as shown in table 2 in which percentages are presented inside brackets while frequency outside brackets.

Table 2: Collection Effort

Collection Effort	5	4	3	2	1	Mean	SD
Prompt notification of grantors if any where the loanee delays payments or default.	27 (26.5)	39 (38.2)	21 (20.6)	3 (2.9)	12 (11.8)	9.65	3.25
Credit department staff frequently sends reminders to debtors.	30 (29.4)	24 (23.5)	27 (26.5)	12 (11.8)	9 (8.8)	9.53	3.28
Fines on loans granted to borrowers is essential in enhancing loan performance	18 (17.6)	36 (35.3)	33 (32.4)	9 (8.8)	6 (5.9)	9.50	3.08
Staff incentives are effective in improving recovery of delinquent loans.	15 (14.7)	42 (41.2)	27 (26.5)	12 (11.8)	6 (5.9)	9.47	3.08
Regular reviews have been done on collection policies to improve loan recovery.	33 (32.4)	39 (38.2)	15 (14.7)	9 (8.8)	6 (5.9)	9.82	3.17
Penalties on loans is crucial for reducing the rate of defaulting by borrowers in DT-Saccos	33 (32.4)	33 (32.4)	18 (17.6)	9 (8.8)	9 (8.8)	9.71	3.27
Overall Score	52	71	47	18	16	9.61	3.19

Results in Table 2, revealed that 26.5% of the sampled respondents strongly agreed that credit department staff frequently sends reminders to clients and 38.2% of the respondents agreed on the same with a mean of 3.65. However, 20.6% of the respondents were uncertain a suggestion that not all credit department staff frequently sends reminders to clients. The results also revealed that 23.5% of the respondents agreed that credit department staff frequently sends reminders to debtors while 29.4% strongly agreed on the same although 26.5% were uncertain with a mean of 3.53. In regards to fines on loans granted to borrowers is essential in enhancing loan performance, 35.3% of the respondents agreed with this assertion while 17.6% strongly agreed. However, 32.4% of the respondents were undecided with a mean of 3.50.

The results also revealed that few of the respondents (14.7%) strongly agreed that staff incentives are effective in improving recovery of delinquent loans and further 41.2% agreed with a mean of 3.47. However, 26.5% of the respondents were uncertain, an indication that staff incentives are effective in improving recovery of delinquent loans. More so, 38.2% of the respondents agreed while 32.4% strongly agreed with a mean of 3.82 that regular reviews have been done on collection policies to improve loan recovery. However, 14.7% of the respondents strongly disagreed that regular reviews have been done on collection policies to improve loan recovery.

Lastly, 32.4% of the respondents strongly agreed that penalties on loans is crucial for reducing the rate of defaulting by borrowers in DT-Saccos and further 32.4% agreed with a mean of 3.71. Averagely, the level of loan repayment had a mean of 3.61 with a standard deviation implying that majority of the respondents were in agreement with collection effort statements.

This outcome is supported by Kariuki (2010) view that since some customers are slow payers while some are non-payers, credit collection aim at accelerating collections from slow payers and reducing bad debt losses which can affect MFI profitability. These results are consistent with Sindani (2012) who studied on effectiveness of credit management system on loan performance in micro finance sector in Kenya and found out that credit collection policies adopted by microfinance institution had an effect on loan performance, that is, stringent policy had a great impact on loan performance, and the lenient policy had an effect but was not as great as that of stringent policy.

Loan collateral security

The third objective of this study was to examine the influence of loan collateral security on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya. To achieve this, the researcher probed the respondents about the loan collateral security. The findings are in table 3 in which percentage are presented inside brackets while frequency outside the brackets.

Table 3: Loan Collateral Security

Loan collateral security	5	4	3	2	1	Mean	SD
DT Sacco attaches client's property to credit facility taken until it's repaid in full.	15 (14.7)	42 (41.2)	27 (26.5)	15 (14.7)	3 (2.9)	3.50	1.02
DT Sacco equates the amount of loan given to the attached property	21 (20.6)	39 (38.2)	27 (26.5)	12 (11.8)	3 (2.9)	3.62	1.04
Attachment of property has increased borrowers commitment in repayment of loans	24 (23.5)	39 (38.2)	24 (23.5)	12 (11.8)	3 (2.9)	3.68	1.07
DT Sacco management decides on the type of property to be attached.	33 (32.4)	36 (35.3)	21 (20.6)	9 (8.8)	3 (2.9)	3.85	1.08
Our DT Sacco has standard type of security requirements for different types of loans	27 (26.5)	45 (44.1)	18 (17.6)	9 (8.8)	3 (2.9)	3.82	1.03
In terms of loan guarantees, the branch has rules, processes, and guidelines in place.	30 (29.4)	39 (38.2)	24 (23.5)	6 (5.9)	3 (2.9)	3.85	1.02
Overall Score						3.72	1.04

N=102; KEY: 1= Strongly Disagree; 2= Disagree; 3=Uncertain; 4= Agree; 5=Strongly Agree; SD= Standard Deviation.

From Table 3, slight majority of the respondents (41.2%) agreed that DT Sacco attaches clients' property to credit facility taken until it's repaid in full while 14.7% of the respondents strongly agreed with a mean of 3.50. However, 26.5% of the respondents were uncertain an indicated that some of the respondents were not aware that DT Sacco attaches clients' property to credit facility taken until it's repaid in full. Similarly, 38.2% of the respondents agreed that DT Sacco equates the amount of loan given to the attached property and further 20.6% strongly agreed with a mean of 3.62. However, few of the respondents (23.5%) strongly agreed that attachment of property has increased borrowers commitment in repayment of loans and further 38.5% agreed on the same. On the hand, 23.5% of the respondents were uncertain and 11.8% disagreed with a mean of 3.68

In regards to DT Sacco management decides on the type of property to be attached, majority of the

respondents were in agreement as shown by 35.3% of the respondents who agreed and 32.43% who strongly agreed with a mean of 3.85. The results also revealed that 44.1% of the respondents agreed that DT Sacco has standard type of security requirements for different types of loans and further 26.5% strongly agreed with a mean of 3.82. Lastly, 38.2% of the respondents agreed that in terms of loan guarantees, the branch has rules, processes, and guidelines in place and additional 29.4% of the respondents strongly agreed with a mean of 3.85. Averagely, the level of loan repayment had a mean of 3.72 implying that majority of the respondents were in agreement with loan collateral security

These views is supported by Baker (2009) who indicated that collateral security assists MFIs to carefully and appropriately give a limited number of loans based on loan security so as to check MFIs profitability. These results are further support Nizar and Javed (2007) who did a study on the use of collateral in the Islamic microfinancing sector and found that while the Islamic system is a system based on participatory financing hence not depend on tangible collateral as much, interest based banking system generally provides credit to those clients who are able to offer sufficient tangible collateral that gives them legal entitlement to tangible assets in the event of default. The results also support Central Bank of Sudan (2007) study that found that in microfinance, collaterals though important, on their own are not enough to guarantee loan recovery and avoid risks of default.

Credit appraisal

The fourth objective of this study was to examine the effect that credit appraisal had on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya. So as to achieve this objective, the researcher sought to find out how credit appraisal influences the loan portfolio performance. The results are presented in Table 4.7 in which percentage are presented inside brackets while frequency outside brackets.

Table 4: Credit Appraisal

Credit Appraisal	5	4	3	2	1	Mean	SD
DT Sacco operates within sound, well-defined credit appraisal criteria	21 (20.6)	36 (35.3)	21 (20.6)	4 (5.9)	18 (17.6)	3.35	1.37
DT Sacco has established overall credit limits both at individual borrowers and counterparties level	39 (38.2)	33 (32.4)	12 (11.8)	3 (2.9)	15 (14.7)	3.76	1.39
DT Sacco has a clearly established process for approving new and re-financing of existing credits	18 (17.6)	45 (44.1)	18 (17.6)	3 (2.9)	18 (17.6)	3.41	1.33
All extensions of credit are made on an arm's-length basis	21 (20.6)	39 (38.2)	24 (23.5)	(0)	18 (17.6)	3.44	1.33
The capacity of members to repay the loan is weighed against the loan requested	12 (11.8)	63 (61.8)	12 (11.8)	(0)	15 (14.7)	3.56	1.19
The character of members to repay the loan is weighed against the loan requested based on their lifestyle	27 (26.5)	33 (32.4)	24 (23.5)	3 (2.9)	15 (14.7)	3.53	1.33
Overall Score						3.51	1.32

N=102; KEY: 1= Strongly Disagree; 2= Disagree; 3=Uncertain; 4= Agree; 5=Strongly Agree; SD= Standard Deviation.

The findings indicate that out of 102 respondents who took part in the study, 35.3% agreed while 20.6% strongly agreed that DT Sacco operates within sound, well-defined credit appraisal criteria. The line had a mean of 3.35 indicating DT Sacco operates within sound, well-defined credit appraisal criteria at moderate extent. Furthermore, 32.4% of the respondents agreed that DT Sacco has established overall credit limits both at individual borrowers and counterparties level which was further supported by 38.2% of the respondents. This observation was supported by a mean of 3.76.

On the statement that DT Sacco has a clearly established process for approving new and re-financing of existing credits, 44.1% agreed while 17.6% strongly agreed. The statement had a mean of 3.41 indicating that DT Sacco somehow has clearly established process for approving new and re-financing of existing credits. The results also revealed that 38.2% agreed and 20.6% strongly agreed that all extensions of credit are made on an arm's-length basis with a mean of 3.44. The mean was further supported by 23.5% of the respondents who were uncertain.

The outcome further revealed that 11.8% and 61.8% strongly agreed and agreed respectively that the capacity of members to repay the loan is weighed against the loan requested. This was supported by mean of 3.53 although 14.7% of the respondents strongly disagreed. Lastly, 26.5% strongly agreed and further 32.4% agreed that the character of members to repay the loan is weighed against the loan requested based on their lifestyle with a mean of 3.53 and standard deviation of 1.33. Averagely, the level of credit appraisal had a mean of 3.51 implying that majority of the respondents were in agreement with credit appraisal statement.

Many Savings, Credit and other financial institutions in market economies have routine internal procedures for evaluating their clients. These are built around credit files that contain complete information on the relationship between a SACCOs and client. Credit files contain a summary of business relationship between SACCOs and clients information on senior officers and directors, financial data including audited financial statements, spreadsheets constructed by savings and credit society that contains ratios and other analytical indicators calculated from financial data. Information about this relationship forms the basis for financial institutions strategy in managing its exposure and obtaining more business from the client.

Loan portfolio performance

Table 5: Loan Portfolio Performance

Loan portfolio performance	5	4	3	2	1	Mean	SD
The credit management practices of the Sacco have a big impact on customers' propensity to repay the loans on time	12 (11.8)	36 (35.3)	36 (35.3)	15 (14.7)	3 (2.9)	3.38	0.99
There is significant reduction bad debts occasioned by robust credit management practices	12 (11.8)	48 (47.1)	27 (26.5)	12 (11.8)	3 (2.9)	3.53	0.96
The level of non-performing loans have decreased in the last five years	36 (35.3)	51 (50)	12 (11.8)	(0)	3 (2.9)	4.15	0.86
The level of gross loan portfolio at risk is less than SASRA approved	45 (44.1)	36 (35.3)	15 (14.7)	3 (2.9)	3 (2.9)	4.15	0.99
Debt collection costs have dropped as a result of consumers' prompt loan repayment.	42 (41.2)	36 (35.3)	9 (8.8)	6 (5.9)	9 (8.8)	3.94	1.25
Income generated by the Sacco in issuing loans is less than the cost of maintaining non-performing loans	21 (20.6)	33 (32.4)	27 (26.5)	12 (11.8)	9 (8.8)	3.44	1.21
Overall Scores						**3.76**	**1.04**

From table 5, slight majority respondents confirmed that the credit management practices of the Sacco have a big impact on customers' propensity to repay the loans on time as indicated by 11.8% of the respondents who strongly agreed and further 35.3% who agreed on the same. However, 35.3% of the respondents were uncertain indications that not all credit management practices of the Sacco have a big impact on customers' propensity to repay the loans on time. The results also revealed that 47.1% of respondents agreed that there is significant reduction bad debts occasioned by robust credit management practices and additional 11.8% strongly agreed on the same with a mean of 3.53. More so, 35.3% of respondents strongly agreed that the level of non-performing loans have decreased in the last five years while 50.0% agreed on the same although 11.8% of the respondents were uncertain whether procurement profit has increased with a mean of 4.15.

The study also established that 44.1% of the respondents strongly agreed that the level of gross loan portfolio at risk is less than SASRA approved and 35.3% strongly agreed, although 14.7% were uncertain on the same. In regard to debt collection costs have dropped significantly as a result of consumers' prompt loan repayment, 35.3% of the respondents agreed and 41.2% of the respondents strongly agreed with a mean of 3.94. Lastly, 32.4% of the respondents agreed that income generated by the Sacco in issuing loans is less than the cost of maintaining non-performing loans with 20.6% of strongly agreeing on the same although 26.5 were uncertain. Averagely, the level of loan portfolio performance had a mean of 3.76 implying that majority of the respondents were in agreement with loan portfolio performance statement.

Table 6: Secondary Data for Loan Performance Between 2019 and 2023

	2019		**2020**		**2021**		**2022**		**2023**	
	Gross Loans *	**% to Totals**	**Gross Loans ***	**% to Total**	**Gross Loans**	**% to Total Gross loans**	**Gross Loans ***	**% to Total Gross loans**	**Gross Loans***	**% to Total Gross loans**
Performing (As per contract)	263,505	89.19 %	294.36	88.87 %	335.24	89.5%	374.59	89.29 %	416.96	87.82%
Watch (1-30 days)	18,525	5.59 %	16.50	4.98%	15.47	4.%	19.16	4.57%	17.96	3.78%
Substandard (31-180 days)	8,050	2.63 %	9.96	3.01%	9.31	2.%	12.08	2.88%	15.73	3.31%
Doubtful (181-360 days)	3,288	1.11 %	4.92	1.48%	5.27	1.%	4.75	-1.13%	8.31	1.75%
Loss (Over 360 days)	4,236	1.48 %	5.47	1.65%	8.99	2.%	8.96	2.14%	15.81	3.33%
Grand Totals	**297,604**		**331.21**		**374.28**		**419.55**		**474.77**	
NPL Amount (Billions)	14,567		21.00		23.57		25.79		39.86	
Provision Amount (Bn)	10,788		14.64		18.08		19.06		28.97	
Provisions/Gross Loan	3.86%		4.28%		4.83%		4.54%		6.10%	
Portfolio at Risk (NPL/Gross Loans)	**5.22%**		**6.14%**		**6.30%**		**6.15 %**		**8.39%**	

Inferential Statistics Analysis

Correlation Analysis

The researcher undertook correlation analysis to establish the nature and strength of the relationships between the independent and the dependent variables of the study. Linearity was also tested by use of Pearson Correlation analysis which computes both the linear and nonlinear components of a pair of variables. Linear regression analysis assumes there is linear relationship between independent and dependent variables. The linearity is as a result of significance level being less than 0.05 which was evident for all study variables. All linear relationships were significant at 0.01 (99.0% confidence level). The results are as shown in Table 7.

Table 7: Pearson Correlation Analysis

		Loan repayment Period	Collection Effort	Loan Collateral Security	Credit Appraisal
Loan repayment Period	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	102			
Collection Effort	Pearson Correlation	.368*	1		
	Sig. (2-tailed)	.032			
	N	102	102		
Loan Collateral Security	Pearson Correlation	-.037	.089	1	
	Sig. (2-tailed)	.834	.616		
	N	102	102	102	
Credit Appraisal	Pearson Correlation	.012	.193	.451**	1
	Sig. (2-tailed)	.945	.275	.007	
	N	102	102	102	102
Loan Portfolio Performance	Pearson Correlation	.439**	.500**	.496**	.573**
	Sig. (2-tailed)	.009	.003	.003	.000
	N	102	102	102	102

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The results indicate that loan repayment period has a moderate positive Pearson correlation (r=0.439, p=0.009) influence on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya. This indicates that Loan repayment play a major role in loan portfolio performance. These results are in agreement with Kabede, Tegegn, and Tafese (2016) sought to examine and identify the main variables that influence small-scale business loan repayment performance and the major difficulties faced by MFIs in the Wolaita and Dawuro region. The study established that borrowers' ability to repay their loans was shown to be strongly influenced by the payback duration.

The results indicate that there is moderate relationship between collection effort and loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya (Pearson correlation coefficient= 0.500, P=0.003). Collection effort therefore has a very great influence in loan portfolio performance. Similar results were obtained by Dickerson (2016) who utilized a descriptive survey methodology and a sample of 125 respondents to study collection policy and loan efficiency among UK SACCOs. Study results show that loan performance is related to loan collection effort which is a guide that guarantees timely payment and frequent collections.

The analysis in table 7 show that loan collateral security has a moderate positive Pearson correlation coefficient (r= 0.496) influence on loan portfolio performance. This indicates that loan collateral security factors cannot be ignored whenever considering the loan portfolio performance among deposit taking Saccos in Nairobi County. This result is supported by Acquah and Addo (2011) indicated that collateral security is shown to be a significant predictor of loan repayment in the regression study.

The results showed that there is positive relationship between credit appraisal and loan portfolio performance (Pearson correlation coefficient, r= 0.573). This implies that credit appraisal is very necessary in loan portfolio performance. Similar results were also obtained by Iftikhar (2016) looked at the relationship between KSE-listed Pakistani commercial banks' credit risk management and financial performance. The study's findings show that credit assessment procedures have a substantial effect on Pakistan's commercial banks' loan performance.

Multiple Regression Analysis

The study sought to determine the model summary findings in order to determine the overall percentage change in the loan portfolio performance that was explained by all the metric of the credit management practices by use of R^2. The results in Table 4.12 present R, R^2, Adj $R^{2,}$ F ratio and Sig. value.

Table 8: Model Summary

					Change Statistics				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**R Square Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.812[a]	.659	.611	.505797	.659	13.984	4	29	.000

a. Predictors: (Constant), Credit appraisal, Loan repayment, Loan collateral security, Collection effort

b. Dependent Variable: Loan portfolio performance

The results from the model summary in Table 8 give us information on the overall summary of the model. It can be deduced that credit management practices account for 34.1% significant variance in loan portfolio performance (R square =.659, P=0.000) implying that 62.8% of the variance in loan portfolio performance is accounted for by other variables not captured in this model. From the findings, also adjusted R square value is obtained, which is a corrected R square value to provide a useful estimate of true study population. The difference between R^2 and adjusted R^2 is obtained by subtracting the later from the former (.659-.611=0.048) a value when multiplied by 100% results in 4.8 percent. This reduction implies that should the model originated from the entire population instead of a sample, it would explain about 4.8% less variation in the study outcome. The next Table 9 is ANOVA which is also known as model of fit (goodness of fit; F Ratio, Sig Value).

Table 9: Model of Fit (ANOVA Table)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	14.310	4	3.577	13.984	.000[b]
Residual	7.419	29	.256		
Total	21.729	33			

a. Predictors: (Constant), Credit appraisal, Loan repayment, Loan collateral security, Collection effort
b. Dependent Variable: Loan Portfolio Performance

The F Ratio was used in order to determine the relevance of the model, or simply if the study model is a more significant predictor of loan portfolio performance than the mean score, which was regarded to be a guess by the researchers. According to the data, the F value is more than one, as demonstrated by a value of 13.984, which indicates that the enhancement obtained as a consequence of model fitting is significantly greater than the model errors/inaccuracies that were not included in the model (F (4,33) = 13.984, P=0.000) The big F value is very unlikely to have occurred by coincidence (99.0 percent), meaning that the final research model has significantly improved in its capacity to forecast loan portfolio performance as a result of the credit management techniques examined.

Table 10 contained regression coefficient (Unstandardized & standardized), t-value and Sig. value results. The study has an option of either using Unstandardized Coefficients or Standardized Coefficients depending on the type of data. The study used unstandardized coefficient column because we want to compare credit management practices effect across same measures (Likert Scale 1 through 5).

Table 10: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.066	.522		.126	.901
	Loan repayment Period	.268	.091	.345	2.950	.006
	Collection Effort	.225	.098	.272	2.286	.030
	Loan Collateral Security	.271	.104	.316	2.598	.015
	Credit Appraisal	.252	.083	.373	3.025	.005

A regression of the four predictor variables against loan portfolio performance established the multiple linear regression model as below as indicated in Table 10.

$$Y=-.066+ 0.268X_1+0.225X_2+0.271X_3+ 0.252X_4$$

where:

Y= Loan portfolio performance

X_1= Loan repayment period

X_2= collection effort

X_3= loan collateral security

X_4= credit appraisal

From the findings presented in Table 10, all credit management practices in this study had significant effect on the loan portfolio performance. If credit management practices are held at zero or it is absent, the loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya would be 0.066, p=0.901. This implies that absence of credit management practices would to insignificant loan portfolio performance.

It was revealed that loan repayment period had unique significant contribution to the model with B=.268, p=.006 suggesting that controlling of other variables (Collection effort, Loan collateral security and Credit appraisal) in the model, a unit increase in loan repayment would result to significant increase in loan portfolio performance by 0.268 units. These findings are in agreement with Kabede, Tegegn, and Tafese (2016) sought to examine and identify the main variables that influence small-scale business loan repayment performance and the major difficulties faced by MFIs in the Wolaita and Dawuro region. The likelihood of loan payback increases substantially if the repayment term is appropriate for the borrower's financial circumstance. Regina and Kiriinya (2018) analyzed the relationship between loan repayment period and loan performance and established that loan performance is influenced by loan repayment duration.

The coefficient of collection effort was 0.225, which was significant (p=.030) and also positive. When the

variance explained by all other variables (Loan repayment period, loan collateral security and Credit appraisal) in the model is controlled, a unit increase in collection effort would result to significant increase in loan portfolio performance by 0.225 units. The findings concurred with Hu (2016) who investigated the loan-performance of Taiwan's banking industry. According to research, there is a strong link between non-performing loans (NPLs) and collection efforts. Mot, Masinde, Mugenda and Sindani (2018) revealed that collection attempts and non-performing loans have a significant impact. In addition, the research discovered a link between collection attempts and non-performing loan levels.

Another variable that also had a unique significant contribution to the model was the value for loan collateral security (B=.271, p=.015). When other variables in the model are controlled (Collection effort, Loan repayment period and Credit appraisal), a unit increase in loan collateral security would result to significant increase in loan portfolio performance by 0.271 units. The findings are in agreement with Mulumba (2019) who investigated credit appraisal and repayment of bank loans in Kampala. The results indicated that Barclays bank demanded collateral for loans above UGX 20 million to sustain loan portfolio performance. Further, Chege (2010) that loan security was connected to the performance of Microfinance Institutions in Kenya. A study conducted in Kisii County, Kenya by Muriungi and Maina (2021) established that most banks prefer motor vehicles on security in order to reduce the risk of default. Further most banks discourage clients from using land and buildings as collaterals.

Lastly, credit appraisal had also unique significant contribution to the model with B=0.252, p=.005 implying that when other variables in the model are controlled (Collection effort, loan collateral security and Loan repayment period), a unit increase in Credit appraisal would result to significant increase in loan portfolio performance by 0.252 units. These results are in agreement with Bosek (2016) who conducted research on the procedures of credit risk assessment and nonperforming loans at SACCOs. Research showed that SACCO loan performance is significantly impacted by credit risk assessment procedures. Ntiamoah, Oteng, Opoku, and Siaw (2014) indicated that credit appraisal methods in Ghana's Greater Accra area are linked to loan performance. Gichuhi and Omagwa (2020) established that customer evaluation has an impact on loan portfolio performance.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that loan repayment period has significant influence on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya. This implied that during formulation of loan repayment period, loan repayment grace period, loan repayment frequency and duration of loan repayment influence loan portfolio performance. DT-Saccos in Nairobi County constantly analyzed the credibility of the applicant in order to establish the conditions of the loan repayment period for the applicant.

The study established that collection effort has significant influence on loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya hence the second null hypothesis was rejected. To improve performance of loan portfolio, DT-Saccos in Nairobi County considered constant reminders, physical regular visits and late pay penalties and fines. Some DT-Saccos have offered staff incentives to motivate credit officer and managers in improving recovery of delinquent loans. Further, there was prompt notification of grantors if any where the loanee delays payments or default which enhances loan portfolio performance.

The findings also concluded that loan collateral security have significant influence on loan portfolio performance of Deposit Taking Saccos in Nairobi City County. Therefore, the study third null hypothesis was not supported. Loan collateral security was mainly in terms of guarantors, salaries and collateral physical assets to ensure favorable loan performance. DT Saccos in Nairobi County

have standard type of security requirements for different types of loans.

Lastly, the study concluded that credit appraisal have significant influence on the loan portfolio performance of Deposit Taking Saccos in Nairobi City County, Kenya. Therefore, the study rejected the fourth null hypothesis. The capacity of members to repay the loan is weighed against the loan requested. Rating of loan repayment record such as on-time repayment of loan, late repayment information and why recent late payment was made by the borrower is instrumental in determining loan portfolio performance. .

The study concluded that loan repayment period positively influenced loan portfolio performance in Deposit taking Saccos in Nairobi County. Therefore, this study recommends that credit committees of deposit taking Sacco's should always seek to review some policies such loan repayment period, legal procedure, and employee skill development in order to maximize profits. A strategy to increase a loan repayment period should be adopted to expand and maintain the existing market niche. A longer period of loan repayment provides better terms to borrowers who are required to pay lesser amount per installment while collecting substantial amount as principal loans.

The study established that collection effort is plays significant role in loan portfolio performance. The study recommended that DTS should involve credit/field officers and customers in formulating viable credit terms and customized credit collection policies that positively attract customers as these will reduce loan delinquency, improve market share and consequently influence non-performing loans. Further, the study recommends that deposit taking microfinance institutions should implement better debt recovery strategies to reduce costs, increase efficiency and maximize their debt recovery efforts through putting in place powerful debt management and recovery product that can help in developing more focused collection strategies by profitably segmenting, prioritizing and locating debt accounts.

The study concluded that loan collateral security has significant influence on loan portfolio performance. The study recommended, DTSs should craft viable and customized collateral security measures meant to reduce loan delinquency ratios while at the same time ensuring DTS's reputation and market share. From the results, it is recommended that DTS should engage more viable loan security measures meant to reduce loan delinquency ratios which can consequently influence positive loan portfolio performance.

Lastly, the study established that credit appraisal significantly influenced loan portfolio performance. The study recommends that DTS should establish appropriate credit appraisal methods to offer guidance in the issuance of credit. Proper customer creditworthiness systems should be put in place on the basis of their capacity to repay their credit and customer loyalty. SACCOs should establish sound credit risk appraisal practices that are central to the mitigation of credit risk. This includes an in-depth assessment of the business project for whatever the aim of the undertaking is. Government, through its regulators SASRA, should develop sound credit policies that control credit procedures in the SACCO fraternity. SACCO management should create and continue to review loan appraisal policies in line with the overall state of the economy and government policies.

It is hoped that the findings of this study would contribute to the existing body of knowledge and form a basis for future researches. The following areas of further research are thus suggested. This study focused on credit management practices however, further studies should focus on the influence of SASRA regulation on loan portfolio performance such as liquidity and capital regulations. Besides loan collateral security, loan repayment period, credit appraisal and collection effort, other macro factor affect non-performance of loan portfolio in financial sector. For instance, further studies should focus on credit insurance and size of Saccos in regard to non-performance loans.

The study utilized both secondary and primary data, however, primary data took precedence in this study since some variables were difficult to be operationalized in to secondary variables, and Future study should give precedence to secondary data for the sake of external validity.

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