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Credit Appraisal Practices and Loan Performance of Deposit Taking Savings and Credit Cooperatives in Kiambu County, Kenya

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Abstract:

The Sacco sector play vital roles in the society by providing investment avenues, advancing credit facilities and instilling saving culture as well as enhancing financial access and inclusion. The subject of non-performing loans is increasingly becoming a challenge that jeopardizes the sustainability of deposit taking Saccos in Kenyan economy. The specific objectives were to: determine the effect of borrower's character, capacity, capital and collateral effect on loan performance in deposit taking saccos in Kiambu County. The research was anchored on asymmetric information, financial intermediation and credit scoring theories. The study used both primary data in form of structured questionnaire and secondary data on loan performance of deposit taking saccos. Annual financial statements of 14 registered deposit taking Saccos in Kiambu County were used to derive Secondary data. The target respondents were 56, which included: credit managers, finance managers and two credit officers from each firm. A census was done since the firms were not many. Data analysis was performed using Statistical Package for Social Science through descriptive and regression analysis. The findings indicated that borrowers' character, capacity, collateral and capital had a positive and significant effect on loan performance. In particular, borrower's character was found to have the greatest effect on loan performance, followed by collateral, capacity and lastly capital. The results also revealed that credit appraisal practices account for 69% of total changes in loan performance among deposit taking saccos. The study concludes that improvement of credit appraisal practices including borrowers' character, capacity, collateral and capital is likely to enhance loan performance in deposit taking saccos operating in Kiambu County. The study recommends that the management of deposit taking saccos should follow stringent measures in analyzing borrower's profiles, occasionally review the capacity of a borrower to sustain loan repayment, periodically revalue collaterals to assess their net realizable value, and scrutinize the evidence of the borrower's capital contribution and also encourage borrowers to contribute more capital.

Keywords: Loan performance, borrower's character, borrower's capacity, borrower's collateral, and borrower's capital

1. Introduction and Background

1.1. Introduction

High level of bad debts by the financial institutions has led to a stunted growth in financial institutions globally. Samoei (2016) observed that one of the greatest causes of stunted growth in Japanese economy was non-performing loans. The researcher was of the view that some of the loans borrowed by individuals, companies and industries from financial firms in the 2008 bubble period became delinquent when the bubble burst. CBK (2017) showed that NPLs level went up from the previous year (2016) from 214.3 billion to 264.6 billion in 2017 which was an increase from 9.3 percent to 12.3 percent. This was generally a 23.5 percent increase in NPLs from 2016 to 2017 which was an alarming rate. Another report by the (CBK bank supervision annual report (2016) showed that the NPLs also increased from the year 2015 to 2016 by 45.5 percent from the previous year's amount of KSh147.3 billion to KSh 214.3 billion.

SACCOs sector in Kenya is comprised of two categories, Deposit Taking SACCOs and non- deposit taking SACCOs. DT-SACCOs are those that accept deposits hence allow their customers to maintain savings accounts that are withdrawable just like in banking industry (SACCOs supervision report 2017). The non-deposit taking SACCOs are the type that receive members' deposits in which the deposits are placed as collaterals for loans advanced to the members. The deposits cannot be withdrawn by the members unless the member is seizing his/her membership in the SACCO in which case the deposit will be recovered less any liability owed by the member (SACCOs supervision report 2017). Apart from the fundamental function of DT- SACCOs of savings and loan facilities, they too offer banking services like demand deposits

and payment services. Generally, SACCOs begin as non DTS and increase in size to DT-SACCO platform expanding the number of services to its members (Financial Stability Report, 2012). DT-SACCOs play vital roles in the society by providing investment avenues and advancing loan to their members. They also enhance financial access and inclusion in the society (SASRA, 2016). In addition to enhancing livelihoods in the society, DT-SACCOs instill the saving culture among the members above all other financial entities (ICA, 2007). Credit facilities in DT-SACCOs is construed to be the major source of revenue (Gatimu, 2017). DT-SACCO loans are the key assets amounting to 73.42% of the asset portfolio (Okundi, 2011). A significant proportion of these loans advanced by DTs eventually become delinquent thus end up becoming bad debts with negative effects on the financial position of the SACCO.

Non-performing loans subject is increasingly becoming a predicament that jeopardizes the sustainability of DT-SACCOs in Kenyan economy. Currently, non-performing loans rate is increasing leading to much constrains in sustainability of SACCOs which has negatively affected the operations of the DT-SACCOs (Gatimu, 2017). In the year 2015 NPLs jumped from 5.12% recorded in 2014 to 5.14 % (SASRA 2015). In the 2016 the NPLs grew from 5.14% recorded in the year 2015 to 5.23% (SASRA, 2016). In 2017 non-performing loans ratio increased to 6.14% from 5.23% recorded in 2016 (SASRA 2017).

Adequate credit appraisal in financial institutions is crucial for the sustainability of such institutions. In DT-SACCOs, the subject of credit appraisal is even of much emphasis due to the high risks associated with its client's nature and the business environment they are subjected to (Maina, 2016). Providing loans to members is the major revenue generator for DT-SACCOs. However, this attracts high risks to the borrower and the SACCO. The members' risk is the inability to fulfil their financial obligation when it falls due as per the loan contract hence downgrading the credit rating of the borrower. The member is also faced with the risk of loss of security placed against the loan. The SACCO on the other hand has even a higher credit risk of bankruptcy that jeopardized the members' funds and eventually collapsing the SACCO (Gatimu, 2017).

1.2. Statement of the Problem

The subject on loan performance of DT-SACCOs has attracted much attention from researchers in several areas of study. In DT-SACCO, loans are the key assets amounting to 73.42% of the asset portfolio thus non-performing loans are arguably the greatest risk that DTS face. The NPL rate steadily increased from 5.12% in 2014 to 5.14% in 2015 to 5.23% in 2016 to 6.14% in 2017 (SASRA 2017). This increase was caused by an increase in NPLs from Ksh 13.08B in 2014 to Ksh 13.21B in 2015 to Ksh 15.57B in 2016 and further to Ksh 16.53b in 2017. In particular, Community based DT-SACCOs which forms over 70% on DT- SACCOs in Kiambu County recorded an aggregate NPL rate of 15.91% in 2017 which was a jump from the NPL rate of 9.84% recorded in the previous year. These rates are well above WOCCU ceiling of 5% and even higher than the SASRA's set maximum of 3%.

Sacco income is majorly derived from the loan interest received from issued loans but the interest has not been growing as expected due to weak credit management (Njogu, 2017). The increasing rate of NPLs has led to an increase in the rate of credit risk for the last five years. This situation has negatively affected the Sacco's profitability (SASRA, 2017). The success of DT-Saccos in terms of loan performance has been jeopardized by credit risk that deters realization of the key objectives for which the Saccos were developed.

Numerous research works has been done to explore on credit appraisal practices and performance of loan. However, most of them focused on different contexts. Some were done in different countries and counties in Kenya, others focused on microfinance institutions in general. Some studies also focused on banking industry while others narrowed down to specific category of Saccos like Famers-based Saccos. This brought up a research gap that the current study sought to address by finding the influence of credit appraisal practices on loan performance of DT-SACCOs in Kiambu County

1.3. Research Objectives

1.3.1. General Objective

The objective of the study was to determine the effects of credit appraisal practices on loan performance of deposit taking SACCOs in Kiambu County.

1.3.2. Specific Objectives

The definite goals are:

- To determine borrower's character effect on loan performance of DTS in Kiambu County.
- To determine borrower's capacity effect on loan performance of DTS in Kiambu County.
- To determine borrower's collateral effect on loan performance of DTS in Kiambu County.
- To determine borrower's capital effect on loan performance of DTS in Kiambu County.

The null hypothesis was tested in view of above specific objectives

2. Literature Review

2.1. Theoretical Review

This research work was anchored on Asymmetric Information, Financial Intermediation and Credit Scoring Theories.

2.1.1. Asymmetric Information Theory

This was spearheaded by George Akerlof, Joseph Stiglitz and Michael Spence (1970). The theory highlights the difficulties in drawing the line between bad and good borrowers which lead into unfavorable selection and moral hazards problems when a financial institution is in the process of appraising a loan application. The theory shows that the party equipped with more knowledge on a particular subject (the loan applicant) is able to negotiate favourable terms for the transaction than the other party (the financial institution). The party equipped with little knowledge about the specific subject being transacted is thus in a position to arrive at either right or wrong decision regarding the transaction. In the current study, this theory will be used to help in understanding the effect of borrower's character and capacity on DT-SACCOs performance in order to get a better picture of the borrower before extending the loan facility.

2.1.2. Theory of Financial Intermediation

The pioneer of this theory was Levine, Loayza and Beck (2000) who argues that the information asymmetry between the borrower and the lender can be overcome hence enabling the lender produce creditworthy information about the borrower. The available information provides an important basis to lenders to assess and appraise the borrower. Financial intermediaries are essential due to their ability to reduce both transactional and informational costs emerging from information asymmetry. Exchanging information on applicant's credit worthiness, financial institutions shall be in a position to assess the quality of credit application and carefully advance to borrowers without bias. Lenders aim of exchanging information on borrowers is to assess the past financial transactions of the borrower with an aim of improving the likelihood of lending to low risk borrowers. This theory will be pivotal in this study in analyzing how Saccos can get adequate information on borrower's character, capacity and collateral to aid in proper decision making.

2.1.3. Credit Scoring Theory

Feldman (1997) advanced this theory. The theory argues that financial lenders utilize credit rating to control the advancement of credit. Borrowers with high credit rating are offered loans on better terms while those whose default rate is high experience a reduction in their scores hence lose access to loans on favorable terms. The financial entity gathers information about an individual's borrowing and repayment behavior hence concludes on how to classify them under the credit score. Competitive financiers utilize existing repayment and insolvency status to infer a borrower's future ability to default in order to correctly price a credit facility.

2.2. Empirical Review

2.2.1. Character of the Borrower and Loan Performance

Abdirahman (2018) researched to determine the effect of credit information sharing on financial performance on commercial banks in Kenya. The researcher used inferential and descriptive statistics. The study observed that CRBs were launched in Kenya's financial industry to better the process of sharing credit information and to prohibit asymmetry of information and credit risk. The CRBs also keep a credit data for the borrowers that are useful for the purposes of credit scoring according to the stored information. The researcher also pointed that credit information sharing from several stakeholders strengthens the accuracy of the information with regards to suitability of the applicant. The default rate reduces as a result. The study found out that sharing of credit information has critical impact on performance of financial players in Kenyan market. The researcher recommended that sharing credit information be sensitized in all commercial banks and that sound practices should be embraced to minimize credit risk. However, the study focused more on banking industry hence limiting the scope of generalizing the findings.

Samoei (2016) researched on factors influencing NPLs in registered Saccos in Kenya. The study employed descriptive methodology and was guided by asymmetry theory. The aim of the study was to determine the members' personal characteristics on delinquent loans. Multiple linear regression equation was used to find out the relationship between the independent and the dependent variable and Pearson's Product Moment Correlation Coefficient was utilized to determine the strengths between the variables. The study revealed that age and gross salary of the members seeking a loan directly affect the borrowers' ability to repay the loan. Therefore, it was evident that personal characteristics of members who request for loans in SACCOs play a major role in influencing non-performing loans. However, this study revolved around personal characteristics avoiding to explore on other variables influencing NPLs hence the outcomes may not be general to the entire Sacco sector.

2.2.2. Capacity of the Borrower and Loan Performance

Korankye (2014) analyzed causes and control of loan default in microfinance institutions in Ghana using descriptive technique. Interviews and questionnaires collected data for the research. The study showed that efficient appraisal of repayment ability is important in minimizing loan default. According to the study, appraising repayment ability is critical loan portfolio management. This includes establishing the borrower's ability to honour his/her obligation. Some of the drawbacks of this study are that it investigated micro finance institutions in Ghana market hence cannot be generalized in Kenya Sacco sector.

Soita (2008) conducted a research on the relationship between the use of the C's of credit risk and non-performing loans of microfinance institutions in Kenya. The researcher sampled 15 microfinance institutions using questionnaires. The study employed descriptive research design. The researcher also made use of regression model to find out the relation between the Suita C's of credit risk appraisal model and the level of non-performing loans. With respect to the C's of credit risk appraisal model, the study observed that factors most considered by micro finance institutions in

appraising credit risk are capacity with an average of 4.5 and standard deviation of 0.53, capital with an average of 4.2 and a standard deviation of 0.63, character with an average of 4.0 and standard deviation of 0.94 and finally collateral with an average of 2.2 and a SD of 1.03. The outcomes in this study indicated that the C's of credit appraisal model are useful in MFI's credit appraisals and that capacity is the most crucial factor followed by capital, character and then collateral. Despite the fact that the study tackled the C's of credit, it revolved around MFI hence cannot be strongly generalized in Sacco sector.

2.2.3. Borrower Collateral and Loan Performance

Warue (2012) surveyed on factors influencing delinquency of loans in Kenyan microfinance institution. The author observed that collaterals are forms of guarantees and/or securities submitted by the borrower to the microfinance institution. The study used descriptive methodology to arrive at its findings. The study found out that although the revenues from the operations of the business are construed to be the primary source of the repayments of loans, when insufficient cash flows strikes the business, the microfinance institution can cushion the loss if it had a security for the loan in place. In addition, the researcher observed that a guarantor is the party who commits to repay the loan if the primary borrower fails to perform as per the loan agreement. The study also noted that recoveries from the guarantors often call for costly legal processes and results in poor relations between the financial institution, guarantors and borrowers. However, the study did not comprehensively cover all forms of credit appraisal techniques.

Njogu (2017) researched on management of loans and performance of DTS in Kirinyanga County. Descriptive research was utilized. The multiple linear regression model used revealed that financial performance was affected by loan management up to 83% while 17% was as result of other variables. Further, the study revealed the existence of a positive correlation between loan management and financial performance. The researcher further asserted that very low deposits and high default rates have plunged some deposit taking Saccos into serious liquidity problems, culminating in the erosion of public confidence in these Saccos. The main shortcoming of this study is that its conclusions were purely based on primary data limiting the scope of generalization.

2.2.4. Borrower Capital and Loan Performance

Owino (2013) in a descriptive approach conducted a research on the effects of credit policies on the level of non-performing loans of DTS in Kenya. The researcher sought to determine the lending practices adopted by DTS in Kenya and also the influence the policies have on the NPLs among DTS in Kenya. The researcher observed that Capital contribution is the money personally invested into the venture by the loan applicant and it indicates how much the borrower has at risk should the business fail. Lenders and investors expect the loan borrowers to have injected from their own resources and to bear some level of business risk towards the investment at the point of performing credit appraisal. This portrays commitment by the borrower in running the business effectively and will in turn reduce the chances of loan default. Among the major findings of this study were that capital contribution by the borrower and proper adherence to lending policies can immensely reduce the levels of non-performing loans of Kenyan deposit taking Saccos.

Chepkoech, (2014) researched on the effect of credit assessment process on repayment of bank loans in commercial banks in Kenya using descriptive design. The researcher employed a census survey to collect primary data using questionnaire and secondary data of the 43 banks in Kenyan market. The researcher aimed to find out impact of credit assessment process on serving of loans in Kenyan banking sector. The study found out that no single credit appraisal technique was used in isolation, with the banks opting to use more than one of each of the credit appraisal techniques. The most commonly used process was the 5C's of credit appraisal. The study also revealed that borrowers with small capital base were likely to default on loan repayments.

3. Research Methodology

The research adopted descriptive research design. This design is suitable since one is in a position to gather information, outline the situation and respond to various queries. The descriptive design involves gathering quantitative data that describe events and then organizes, tabulates and describes the data. Descriptive research determines and reports the way things are and also helps a researcher to describe a phenomenon in terms of attitude, values and characteristics (Mugenda & Mugenda 2007). Since the researcher needed to come up with the most suitable data regarding credit appraisal practices on loan performance of DTS in Kiambu County, the study adopted census approach targeting credit manager, finance manager and two credit officers from all the 14 SACCOS. This comprised a total of 56 respondents.

4. Research Findings and Discussion

4.1. Reliability Results

This section provides reliability results as conducted using Cronbach Alpha. The results are presented in Table 1.

Variable	No of Items	α =Alpha	Comment
Borrowers' Character	7	0.751	Reliable
Borrowers' Capacity	6	0.792	Reliable
Borrowers' Collateral	6	0.722	Reliable
Borrowers' Capital	4	0.741	Reliable
Loan Performance	4	0.732	Reliable
Average		0.748	Reliable

Table 1: Reliability Results
Source: Research Data (2020)

The results indicate that borrowers' character variable had an alpha coefficient of 0.751, borrowers' capacity, 0.792; borrowers' collateral, 0.722; borrowers' capital, 0.741; and loan performance, 0.732. The average alpha value was 0.748 > 0.7. This implied that all the variable items were reliable and therefore, were adopted in the subsequent analysis.

4.2. Descriptive Statistic Results

4.2.1. Borrowers' Character

Borrowers' Character	Strongly Disagree	Disagree	Neutral	Agree	Strong Agree	Mean	Std. Dev
Our Sacco follows stringent measures in analyzing borrower's profiles	2.0%	4.0%	14.0%	30.0%	50.0%	4.28	0.86
Our Sacco checks the amount of loans a borrower has with other financiers	5.0%	12.0%	12.0%	35.0%	36.0%	4.00	0.99
Our Sacco analyses the amount of loans a loan applicant has previously defaulted	2.0%	4.0%	10.0%	40.0%	44.0%	4.24	0.82
Our staff understand the SACCOs procedure in assessing customer's character at the onboarding stage	2.0%	4.0%	12.0%	34.0%	48.0%	4.22	0.95
Our customers participate fully when required to provide information about their borrowing character	2.0%	8.0%	14.0%	44.0%	32.0%	3.96	0.99
We regularly review the customers' character from time to time.	4.0%	10.0%	12.0%	40.0%	34.0%	4.06	0.96
Our Sacco has partnered with Credit Reference Bureaus (CRBs)	6.0%	16.0%	10.0%	44.0%	24.0%	3.76	1.00
Aggregate Mean						4.07	0.94

Table 2: Descriptive Statistics; Borrowers' Character
Source: Research Data (2020)

The findings indicate an aggregate mean of 4.07, which means that majority of the respondents agreed with statements relating to borrowers' character. In particular, most of the respondents observed that: their Sacco follows stringent measures in analyzing borrower's profiles, analyses the amount of loans a loan applicant has previously defaulted, checks the amount of loans a borrower has with other financiers, staff understand the firms procedure in assessing customer's character at the on boarding stage and regularly review customers' character.

4.2.2. Borrowers' Capacity

Borrowers' Capacity	Strongly Disagree	Disagree	Neutral	Agree	Strong Agree	Mean	Std. Dev
Our SACCO analyses applicant's monthly income before approving loans.	6.0%	8.0%	6.0%	36.0%	44.0%	4.16	0.93
Our SACCO assesses monthly expenses of loan applicants before issuing a loan.	3.0%	8.0%	6.0%	30.0%	52.0%	4.30	0.91
Our SACCO does site visits to business premises of loan applicants.	4.0%	4.0%	8.0%	38.0%	46.0%	4.26	0.83
Our SACCO seeks employment details from the employer of the loan applicant before approving loans	8.0%	4.0%	10.0%	40.0%	38.0%	4.20	0.78
Our SACCO assesses other sources of income for the loan applicant.	5.0%	14.0%	9.0%	24.0%	48.0%	4.06	1.10
After onboarding, our SACCO occasionally reviews the capacity of a borrower to sustain loan repayment.	2.0%	4.0%	2.0%	34.0%	48.0%	4.26	0.85
Aggregate Mean						4.21	0.90

Table 3: Descriptive Statistics; Borrowers' Capacity
Source: Research Data (2020)

The findings indicate an aggregate mean of 4.21, which means that majority of the respondents agreed with statements relating to borrowers' capacity. In particular, most of the respondents observed that: their Sacco analyses applicant's monthly income before approving loans, assesses monthly expenses of loan applicants before issuing a loan, do site visits to business premises of loan applicants, seeks employment details from the employer of the loan applicant before approving loans, assesses other sources of income for the loan applicant and occasionally reviews the capacity of a borrower to sustain loan repayment.

4.2.3. Borrowers' Collateral

Borrowers' Collateral	Strongly Disagree	Disagree	Neutral	Agree	Strong Agree	Mean	Std. Dev
Our SACCO demands for documents of title as collateral	4.0%	12.0%	18.0%	46.0%	20.0%	3.66	1.06
Our SACCO ensures Collaterals are insured.	4.0%	14.0%	20.0%	34.0%	28.0%	3.68	1.15
Our SACCO requires guarantors to have a set number of shares as collateral	40.0%	36.0%	10.0%	14.0%	0.0%	1.98	1.04
We periodically revalues collaterals to assess their net realizable value.	4.0%	12.0%	14.0%	48.0%	22.0%	3.72	1.07
Our SACCO benchmarks with other SACCO's collateral procedures	4.0%	18.0%	14.0%	36.0%	28.0%	3.74	1.07
We have a robust appraisal system for Guarantors	4.0%	14.0%	18.0%	34.0%	30.0%	3.72	1.16
Aggregate Mean						3.42	1.09

Table 4: Descriptive Statistics, Borrowers' Collateral
Source: Research Data (2020)

The findings indicate an aggregate mean of 3.42, which means that majority of the respondents relatively agreed with statements relating to borrowers' collateral. Notably, most of the respondents noted that: their Sacco demands for documents of title as collateral, ensures collaterals are insured, periodically revalues collaterals to assess their net realizable value, benchmarks with other SACCO's collateral procedures and have a robust appraisal system for Guarantors.

4.2.4. Borrowers' Capital

Borrowers' Capacity	Strongly Disagree	Disagree	Neutral	Agree	Strong Agree	Mean	Std. Dev
Our SACCO demands the borrower to contribute a deposit towards the project before approving a loan	34.0%	46.0%	14.0%	6.0%	0.0%	1.92	0.85
Our SACCO scrutinizes the evidence of the borrower's capital contribution.	2.0%	8.0%	10.0%	32.0%	48.0%	4.16	1.04
Customers who contribute more capital have least cases of loan default	8.0%	12.0%	4.0%	34.0%	42.0%	4.22	1.00
We adhere to internal controls governing capital contributions	5.0%	28.0%	8.0%	25.0%	34.0%	3.70	1.22
Aggregate Mean						3.50	1.03

Table 5: Descriptive Statistics, Borrowers' Capital

Source: Research Data (2020)

The findings show an aggregate mean of 3.50, which means that majority of the respondents agreed with statements relating to borrowers' capital. Notably, most of the respondents noted that: their Sacco scrutinizes the evidence of the borrower's capital contribution, customers who contribute more capital have least cases of loan default and they adhere to internal controls governing capital contributions.

4.2.5. Loan Performance

Loan Performance	Strongly Disagree	Disagree	Neutral	Agree	Strong Agree	Mean	Std. Dev
The amount of loans our SACCO gives to borrowers has increased with time	4.0%	16.0%	12.0%	44.0%	24.0%	3.98	1.13
The number loans our SACCO gives to borrowers has increased with time	6.0%	10.0%	6.0%	38.0%	40.0%	3.96	1.19
The amount of non-performing loans has decreased	30.0%	40.0%	8.0%	14.0%	8.0%	2.30	1.16
Our loan repayment rates are affordable	10.0%	18.0%	2.0%	38.0%	32.0%	3.64	1.37
Aggregate Mean						3.47	1.20

Table 6: Descriptive Statistics; Loan Performance

Source: Research Data (2020)

The findings reveal an aggregate mean of 3.5, which means that majority of the respondents agree with most of the statements relating to loan performance. Notably, most of the respondents agreed that the amount of loans their firm gives to borrowers has increased with time, number loans they give to borrowers has increased with time and their loan repayment rates are affordable. However, most of the respondents disagreed with the statement that amount of non-performing loans has decreased.

4.3. Diagnostic Tests

This section provides result on diagnostic tests, that is, normality and multicollinearity test.

4.3.1. Normality Test

Variables	Statistic	df	Sig.
Loan Performance	0.97	50	0.239
Borrowers' character	0.943	50	0.117
Borrowers' capacity	0.968	50	0.195
Borrowers' collateral	0.945	50	0.121
Borrower's capital	0.939	50	0.112

Table 7: Normality Test Using Shapiro-Wilk
*This is a lower bound of the true significance
a. Lilliefors Significance Correction

The findings in Table 7 indicate that data for all the variables was normality distributed. This was supported by Sig. values greater than 0.05. This means that the null hypothesis of normal distribution was rejected.

4.3.2. Multicollinearity Test

Variables	Tolerance	VIF
Borrowers' character	0.303	3.303
Borrowers' capacity	0.347	2.878
Borrowers' collateral	0.75	1.334
Borrower's capital	0.261	3.834

Table 8: Multicollinearity Test Using Variance Inflation Factor
A. Dependent Variable: Loan Performance

The findings in Table 8 indicate that there was no multicollinearity among the independent variables. This was informed by Variance Inflation Factor (VIF) values less than 10 for all the variables. Therefore, this means that the collinearity among the independent variables was within the acceptable level.

4.4. Inferential Analysis

4.4.1. Correlation Analysis

This sub-section presents findings on the correlation between the independent and the dependent variables. The results are captured in Table 9.

		Loan Performance	Borrowers' Character	Borrowers' Capacity	Borrowers' Collateral	Borrowers' Capital
Loan Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
Borrowers' character	Pearson Correlation	.769**	1			
	Sig. (2-tailed)	.000				
Borrowers' capacity	Pearson Correlation	.708**	.739**	1		
	Sig. (2-tailed)	.000	.000			
Borrowers' collateral	Pearson Correlation	.583**	.440**	.478**	1	
	Sig. (2-tailed)	.001	0.001	.000		
Borrowers' capital	Pearson Correlation	.718**	.718**	.780**	.457**	1
	Sig. (2-tailed)	.000	.000	.000	.001	

Table 9: Correlation Results
** Correlation is Significant at the 0.01 Level (2-tailed)

The findings reveal that there is a positive and significant correlation between borrower's character and loan performance. This is supported by a correlation value of 0.769 and a p value of 0.000 at 1% level of significance. The results also indicate that there is a positive and significant correlation between borrower's capacity and loan performance. This is supported by a correlation value of 0.708 and a p value of 0.000 at 1% level of significance. Further, results reveal that there is a positive and significant correlation between borrower's collateral and loan performance. This is supported

by a correlation value of 0.583 and a p value of 0.001 at 1% level of significance. In addition, the findings indicate that there is a positive and significant correlation between borrower's capital and loan performance. This is supported by a correlation value of 0.718 and a p value of 0.000 at 1% level of significance.

The findings imply that an improvement in borrowers' character, capacity, collateral and capital is associated with an improvement in loan performance of D.T SACCOs in Kiambu County, Kenya.

4.4.2. Regression Analysis Results

This sub-section presents regression results that establish the effect of credit appraisal practices on loan performance.

Table 10 provides the model summary results.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.830a	0.689	0.661	0.32297

Table 10: Model Summary

a. Predictors: (Constant), Capital, Collateral, Capacity, Character

The results above reveal an R square of 0.689, which means that jointly, credit appraisal practices accounts for 69% of total changes in loan performance among D.T SACCOs. The remaining 31% can be attributed to other factors not included in this study model.

Further, Table 11 presents the analysis of variance results.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.376	4	2.594	24.868	.000b
	Residual	4.694	45	0.104		
	Total	15.07	49			

Table 11: ANOVA

a Dependent Variable: AVE_LP

b Predictors: (Constant), capital, collateral, capacity, character

The results show that the model is accurate (a good data fit) as supported by F statistic of 24.868 and p value of $0.000 < 0.05$. This means that credit appraisal practices are good predictors of loan performance in D.T SACCOs.

Table 12 presents the regression coefficient results.

Model		B	Std. Error	t	Sig.
1	(Constant)	-0.955	0.547	-1.746	0.088
	Borrowers' character	0.577	0.197	2.928	0.005
	Borrowers' capacity	0.252	0.144	1.749	0.020
	Borrowers' collateral	0.289	0.108	2.677	0.010
	Borrowers' capital	0.205	0.129	1.584	0.020

Table 12: Regression Coefficient

a. Dependent Variable: Loan Performance

Findings in Table 12 indicate that borrowers' character has a positive and significant effect on loan performance. This is supported by a coefficient of 0.577 with a p value of $0.005 < 0.05$ at 95% confidence interval. According to Njogu (2017), the success of loan issuance depends on the credit appraisal practice used to assess and issue the credit facility. Therefore, credit risk aspects and character of the borrower ought to be properly analyzed prior to making credit decision. Both studies agree that borrowers' character plays a significant role in enhancing loan issuance.

The findings also reveal that borrowers' capacity has a positive and significant effect on loan performance. This is supported by a coefficient of 0.252 with a p value of $0.02 < 0.05$ at 95% confidence interval. The study finding is consistent with that of Korankye (2014) who concludes appraising repayment ability is critical loan portfolio management. This includes establishing the borrower's ability to honour his/her obligation. This means that borrowers' capacity to service loans is critical in improving loan performance.

Further, results indicate that borrowers' collateral has a positive and significant effect on loan performance. This is supported by a coefficient of 0.289 with a p value of $0.01 < 0.05$ at 95% confidence interval. The study finding is similar to that of Warue (2012) who stressed on the role of collateral in securing loans. If borrowers default, the lending institution can recover the money by selling the collateral placed on the loan facility.

In addition, results show that borrowers' capital has a positive and significant effect on loan performance. This is supported by a coefficient of 0.205 with a p value of $0.02 < 0.05$ at 95% confidence interval. The study findings agree with Soita (2008) observation that a large capital base by the borrower reduces the chance of default. A good capital base

indicates that the borrower will have minimal challenges in repaying the loan hence making financiers more comfortable in extending the loan.

The following is the estimated model.

Loan performance = $-0.955 + 0.577$ Borrower's character + 0.252 Borrowers' capacity + 0.289 Borrowers' collateral + 0.205 Borrowers' capital

4.5. Discussion of the Findings

The findings revealed that borrowers' character has a positive and significant effect on loan performance. The coefficient of 0.577 implies that, when borrower's character improves by one unit, loan performance is likely to improve by 0.577 units. Based on the regression results, the null hypothesis that: borrower's character lacks significant influence on loan performance of DTS in Kiambu County is rejected since the p value of 0.005 was less than 0.05 level of significance.

The findings also revealed that borrowers' capacity has a positive and significant effect on loan performance. The coefficient of 0.252 implies that, when borrower's capacity improves by one unit, loan performance is likely to improve by 0.252 units. Based on the regression results, the null hypothesis that: borrower's capacity lacks significant influence on loan performance of DTS in Kiambu County is rejected since the p value of 0.02 was less than 0.05 level of significance.

The findings further revealed that borrowers' collateral has a positive and significant effect on loan performance. The coefficient of 0.289 implies that, when borrower's collateral improves by one unit, loan performance is likely to improve by 0.289 units. Based on the regression results, the null hypothesis that: borrower's collateral lacks significant influence on loan performance of DTS in Kiambu County is rejected since the p value of 0.01 was less than 0.05 level of significance.

In addition, results indicated that borrowers' capital has a positive and significant effect on loan performance. The coefficient of 0.205 implies that, when borrower's capital improves by one unit, loan performance is likely to improve by 0.205 units. Based on the regression results, the null hypothesis that: borrower's capital lacks significant influence on loan performance of DTS in Kiambu County is rejected since the p value of 0.02 was less than 0.05 level of significance.

5. Conclusion and Recommendations

5.1. Conclusion

Based on the findings, the study concluded that credit appraisal practices influence loan performance in D.T SACCOs in Kiambu County. In particular, borrowers' character, capacity, collateral and capital were found to have a positive and significant effect on loan performance. The implication is that, improvement of credit appraisal practices including borrowers' character, capacity, collateral and capital is likely to enhance loan performance in D.T SACCOs operating in Kiambu County. The study also concluded that borrower's character best influences loan performance, followed by collateral, capacity and lastly capital.

5.2. Recommendations

From the findings, the study makes several recommendations. The study established a significant positive effect of borrower's character on loan performance. It therefore, recommends that management of D.T SACCOs should follow stringent measures in analyzing borrower's profiles, analyze the amount of loans a loan applicant has previously defaulted, check the amount of loans a borrower has with other financiers, train the staff to understand the firms procedure in assessing customer's character and regularly review customers' character.

The study also recommends that management of D.T SACCOs should analyze applicant's monthly income before approving loans, assesses monthly expenses of loan applicants before issuing a loan, do site visits to business premises of loan applicants, seeks employment details from the employer of the loan applicant before approving loans, assesses other sources of income for the loan applicant and occasionally review the capacity of a borrower to sustain loan repayment.

Further, the study recommends that management of D.T SACCOs should demand for documents of title as collateral, ensures collaterals are insured, periodically revalue collaterals to assess their net realizable value, benchmark with other SACCO's collateral procedures and have a robust appraisal system for Guarantors.

Finally, the study recommends that that management of D.T SACCOs should scrutinize the evidence of the borrower's capital contribution, encourage borrowers to contribute more capital and adhere to internal controls governing capital contributions.

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