Loan Diversification Strategies and Financial Performance of Deposit-Taking Savings and Credit Cooperative Societies in Mombasa County

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Abstract
The objective of the study was to investigate the influence of Loan Diversification Strategies on the financial performance of Deposit-Taking Saving and Credit Cooperative Societies in Mombasa County. The study adopted the descriptive research design. The target population included 109 participants from six-Deposit-Taking Saving and Credit Cooperative Societies in Mombasa County. The stratified random sampling technique used resulted into having 86 units of analysis. The study used primary data which was collected using questionnaires. The gathered data was analysed using the Statistical Package for the Social Sciences version. The study used the simple linear regression model in data analysis. The hypothesis testing led to the rejection of H_{01}. The rejection of H_{01} confirmed that Loan Diversification Strategies have a positive and significant influence on the financial performance of Deposit-Taking Saving and Credit Cooperative Societies in Mombasa County. The study concludes that Loan Diversification Strategies have a significant role in enhancing the financial performance of Deposit-Taking Saving and Credit Cooperative Societies in Mombasa County. The study recommends that Deposit-Taking Saving and Credit Cooperative Societies in Mombasa County should prioritize the implementation of robust Loan Diversification Strategies in order to enhance their financial performance. The study also recommends that policy formulating and regulatory bodies should devise mechanisms and enforce policies which are geared towards enabling Deposit-Taking Saving and Credit Cooperative Societies to develop strategies which will enable them monitor their credit.

1. Introduction
Loan diversification strategies entail various avenues and mechanisms applied in order spread loan inherent risks and maximize on returns (Huynh & Dang, 2021). Loan can be diversified in several ways including geographical diversification, borrower diversification as well as product diversification (Kungu, Wanjau, & Gekara, 2021). Geographical diversification focuses on advancing loans across different geographic locations in order to minimize loses accruing from a

catastrophe in a given location (Le & Van, 2020). On the other hand, product diversification entails advancing different kind of loan products to clients so as to mitigate the entity from the risk of default of one type of loan (Prastiwi & Anik, 2020). Loan diversification strategies are therefore meant to mitigate the risk of default (Huynh & Dang, 2021). These strategies are meant to safeguard the lender so that they may remain in business (Le & Van, 2020). This is because the greatest risk of loan default is borne by lenders, who may miss out on principal and interest payments, have cash flow interruptions, and incur greater collection costs (Prastiwi & Anik, 2020).

1.2 Statement of the Problem

Saving and Credit Cooperative Societies (SACCOs) have been facing delays in refunding member deposits as a result of liquidity challenges (SASRA, 2020). The inability of members to fulfil their duties regarding monthly contributions and loan repayment has been the major cause of the delayed cash flow in SACCO'S repayment (Kungu, Wanjau, & Gekara, 2021). This scenario has made majority of SACCOS in Kenya more so in Mombasa County to have substantial loan backlogs, which exposes them to credit risk brought about by defaulting customers (SASRA, 2020). A Sacco Society Regulatory Authority (SASRA)assessment report found that overall, Deposit-Taking Saving and Credit Cooperative Societies performance has declined over the previous five years and, the amount of non-performing loans increased above the SASRA's recommended of 5% level (SASRA, 2020). According to SASRA (2020), non-performing loans witnessed a concerning rise, escalating from 6.30 percent in 2018 to 9.12 percent in 2020. This scenario indicated that the Saving and Credit Cooperative Societies in Kenya more so in Mombasa County are not performing optimally. This present research study, therefore, sought to undertake an investigation in an attempt to address the identified problem of poor performance in the SACCOs. This study undertook to investigate and unravel the influence of loan diversification strategies on the financial performance of Deposit-Taking Saving and Credit Cooperative Societies in Mombasa County.

1.3 Objective of the study

i. To investigate the influence of loan diversification strategies on the financial performance of Deposit-Taking Saving and Credit Cooperative Societies in Mombasa County.

1.4 Hypothesis

H_{01}: loan diversification strategies have no significant influence on the Financial Performance of Deposit-Taking Saving and Credit Cooperative Societies in Mombasa County.

2.1 Conceptual Framework

A conceptual framework a diagrammatic representation of the relationship between the independent and the dependent variables under investigation (Cooper & Schindler, 2019). Figure 1 illustrates the conceptual framework.
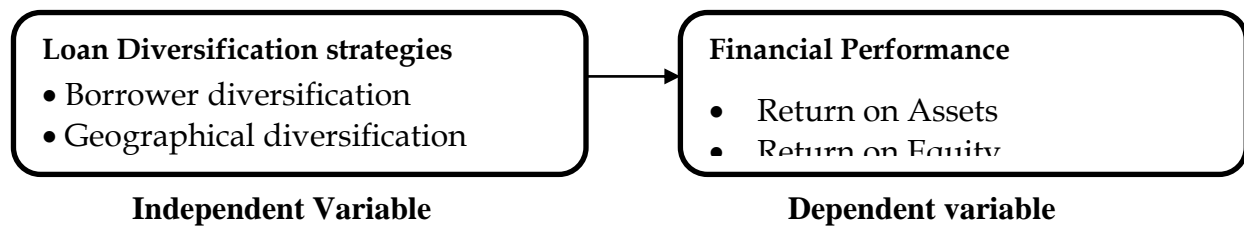
Loan Diversification strategies	Financial Performance
• Borrower diversification • Geographical diversification	• Return on Assets • Return on Equity
Independent Variable	**Dependent variable**

Figure 1: Conceptual framework

2.2 Empirical Literature Review, Critique and research Gap
A study conducted by Ho and Yusoff (2019) in Malaysian financial institutions concluded that loan diversification significantly influences the performance of financial institutions. Ho and Yusoff gathered their primary data using questionnaires. Ho and Yusoff used the mixed research design in their research study. In another study on the relationship between financial risk management and financial performance of commercial banks in Kenya. Muteti (2019) reported that loan diversification strategies affect the financial performance of the commercial banks in Kenya. The study by Muteti (2019) used research questions as well as the exploratory research design. In another study, Kungu, Wanjau and Gekara (2021)investigated how loan diversification strategies affected SACCOs performance in Kenya. The findings demonstrated that loan diversification strategies affect the performance of SACCOs in Kenya. The study by Kungu, Wanjauand Gekara used both research questions and hypotheses, as well as the multiple linear regression model enshrined in SPSS. Kungu, Wanjauand Gekara also used the simple random sampling technique in sample size determination.

The reviewed studies brought about the methodological, conceptual and contextual research gaps which this current study endeavoured to address. In addressing the identified research gaps, this present study was carried out in the SACCOs in Mombasa County and it used the simple linear regression model. This current study also used the descriptive research design as well as the stratified random sampling technique in sample size determination.

3.0 Research Methodology
This research study employed the descriptive research design. The descriptive research design was used in this study because the researcher intended to study the variables under inquiry without manipulating them. The study population comprised of 109 participants from the Finance Department, Internal Audit Department and Loan Department in all 6-deposit taking SACCOs in Mombasa County. Employees from these departments were involved in this study, because the researcher deemed them to be the most instrumental persons in delivering information with reference to loan diversification and the performance of SACCOs in Mombasa County. The study employed the Yamane (1967) formula in determining the sample size, thus resulting into having a total sample size of 86 units of analysis. The stratified random sampling technique was used in distributing the total sample size proportionately in all strata of the SACCOs in Mombasa County. The stratified random sampling technique was used because the respondents were distributed in various strata. Data for the study was collected using

questionnaires incorporating the 5-point Likert scale rating. The collected data was analysed through the Statistical Package for Social Sciences. Descriptive statistics, correlation statistics as well as the regression statistics were generated and interpreted in this study. Diagnostic tests were conducted on the data before running the simple linear regression model. The regression coefficients generated were used in testing the hypothesis at 0.05 level of significance and decision made on whether to reject or fail to reject the null hypothesis. The regression model guiding this study was formulated in the following manner.

$Y = \beta_0 + B_x + \varepsilon$

Where: Y: Financial Performance; X: Loan diversification strategies, β: Beta coefficients

4.0 Research Findings and Disscussion
The research findings and disscussion were presented in sections.

4.1 Diagnostic Test Results
Diagnostic tests were conducted on the data as a prerequisite for the successful running of the simple linear regression model.

4.1.1 Normality Test
The determination of normality in data distribution is confirmed when the normal (Probability to Probability) (P-P) plot displays a tendency to follow a linear pattern (Kothari & Garg, 2019). The findings, as illustrated in Figure 2, indicated that the data followed a normal distribution pattern, thus confirming that the data set was normally distributed.
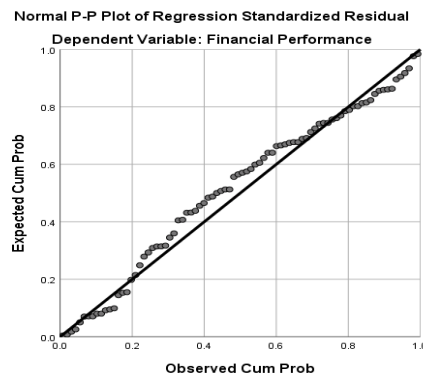

Figure 2: Normal P-P Plot

4.1.2 Test for Linearity
Researchers confirm the presence of linear relationship between the independent and the dependent variables when the scatter plot portray an oval shape distribution (Ghauri, Gronhaug, & Roger, 2020). The oval shape distribution pattern of the scatter plot presented in figure 3 confirmed the presence of linearity, thus paving way for the successful application of the linear regression model.
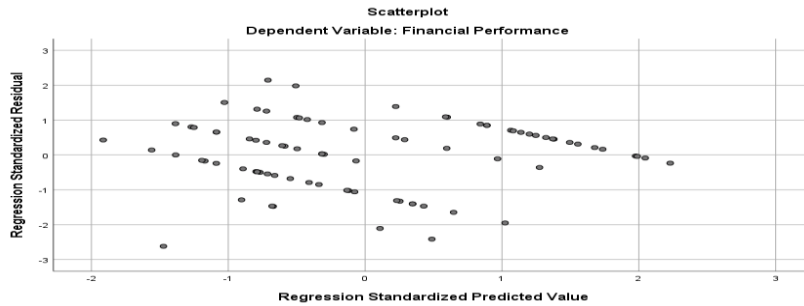
Figure 2: Scatter Plot

4.2 Descriptive Test Results

The descriptive statistics for the loan diversification strategies as well as the financial performance were generated and presented in the table 1

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Loan diversification strategies	84	2.78	4.78	3.9008	.41717
Financial performance	84	2.22	5.00	4.0899	.52243
Valid N (listwise)	84				

Table 1 indicated that the total units analysed for the loan diversification strategies variable was 84 units. The table further displayed the minimum and maximum values for the loan diversification strategies variable as ranging from 2.78 to 4.78, thus resulting into having an overall mean of 3.9008. The overall mean value of 3.9008 indicated a consensus among the respondents that SACCO in Mombasa County are implementing loan diversification strategies. The standard deviation value of .41717 which was less than the mean value, indicated that that the data for the loan diversification strategies variable was well distributed around the central tendency. Table 1 indicated that a total of 84 units were analysed for the financial performance dependent variable. The table also outlined the minimum and maximum values for the financial performance variable as ranging from 2.22 to 5.00. This resulted in an overall mean score of 4.0899. The standard deviation value of .52243 which was less than the mean, indicated that the data for the financial performance variable was well dispersed around the central tendency.

4.3 Pearson's Correlation Coefficients

The Pearson's correlation analysis for this study was conducted and presented in table 2

Table 2: The Pearson's Correlation Coefficients

		Financial Performance	loan diversification strategies
Financial Performance	Pearson Correlation	1.000	
	Sig. (2-tailed)		
	N	84	

Loan diversification strategies	Pearson Correlation	.485**	1.000
	Sig. (2-tailed)	.000	
	N	84	84

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The outcomes of the Pearson's correlation analysis in Table 2, revealed a positive relationship of 0.485 between loan diversification strategies and financial performance. This relationship was statistically significant at 0.05 level (2-tailed). The results suggest that for every unit increase in loan diversification strategies, there is a corresponding increase of 0.485 units in financial performance.

4.4 Multiple Linear Regression Model
Prior to running the simple linear regression model, the Model Summary and the ANOVA tables were generated and interpreted accordingly.

Table 3: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.639^a	.408	.378	.371451

a. Predictors: (Constant), loan diversification Strategies
b. Dependent Variable: Financial Performance

The R-square outcomes of 0.408 from the model summary in table 4.3 indicated that over 40.8% of the variability of the dependent variable could be explained by the independent variable used in this study. The R-square results confirmed that the model was a good fit.

Table 4: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.517	4	1.879	13.619	.000^b
	Residual	10.900	79	.138		
	Total	18.417	83			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), loan diversification strategies

The significant F-test statistic presented in Table 4, with a p-value of 0.000 which less than 0.05, confirmed that the model was both fit and statistically significant, thus paving way for the successful running of the simple linear regression model employed in this study.

Table 5: The Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.175	.583		2.016	.047
	loan diversification strategies	.217	.097	.197	2.236	.028

a. Dependent Variable: Financial Performance

The regression coefficients were utilized to fit the model, as illustrated in Equation below;

$Y= 1.175 + 0.217X_1$

Where, Y: is financial performance; X_1: is loan diversification strategies

4.5 Hypothesis Testing

The null hypothesis was tested using the regression coefficients generated in this study and the results obtained thereof were presented in table 6

Table 4.6: Hypothesis Testing and Decision Rule

Hypothesis Statement	P-value	Decision Rule
H_{01}: Loan diversification strategies have no significant influence on the financial performance of deposit taking SACCOs in Mombasa County	.028	Reject **H_{01}**, Since P-value <0.05

The study rejected the null hypothesis based on the p-value statistics obtained from the regression model, as presented in Table 5 and detailed in Table 6 for hypothesis testing. The hypothesis, which posited that loan diversification strategies have no significant influence on the financial performance of deposit taking SACCOs in Mombasa County, was tested at a 0.05 level of significance. The results, showing a p-value of .028, were well below the 0.05 threshold, leading to the rejection of the null hypothesis (H_{01}). This rejection indicates that there is a statistically significant influence of loan diversification strategies on the financial performance of deposit taking SACCOs in Mombasa County. These outcomes affirmed the importance of loan diversification strategies in influencing the financial performance of entities in the financial sector in Mombasa County. These findings agreed with the findings of Kungu, Wanjau and Gekara (2021) that loan diversification strategies affect the performance of SACCOs in Kenya. Similar findings were reported by Ho and Yusoff (2019) in their study on Malaysian financial institutions. Muteti (2019) also reported similar findings that loan diversification strategies affect the financial performance of the commercial banks in Kenya.

5.0 Conclusion

The study concludes that loan diversification strategies play a significant role in enhancing the financial performance of SACCOs in Mombasa County. This conclusion is drawn from the statistical analysis, which revealed a positive correlation between loan diversification strategies

and financial performance. The rejection of the null hypothesis, based on the p-value of 0.028 which was significantly lower than the 0.05 threshold, further substantiated the influence of loan diversification strategies on the financial performance of SACCOs in Mombasa County. The findings indicated that when SACCOs invest in loan diversification strategies, they are likely to see a marked improvement in their financial performance and overall organizational performance. This insight is crucial for the SACCOs management, highlighting the need for well-structured and effective loan diversification strategies, policies and practices to drive better performances and contribute positively to the growth and success of the finance industry in the region.

6.0 Recommendations
The study recommends that deposit taking SACCOs in Mombasa County should prioritize the implementation of Loan Diversification Strategies in order to enhance their financial performance. The study also recommends that policy formulating and regulatory bodies such as SASRA should devise mechanisms and enforce policies which are geared towards enabling SACCOs to develop strategies which will enable them diversify their loans and monitor their credit.

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