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ABSTRACT

The purpose of this study was to investigate the credit risk management practices on the financial performance of deposit taking savings and credit cooperative societies in Mombasa County. The study adopted descriptive survey research design. The total population of the study was 55 employees drawn from five deposit taking savings and credit cooperative societies in Mombasa County. Stratified sampling technique was used to choose a sample of 48 respondents. The study used primary and secondary data. The collected data was analyzed by the data analysis tool, Statistical Package for Social Science (SPSS) version 25. The data analysis techniques employed by the study were descriptive and inferential statistics. Descriptive analysis computed mean and standard deviation while multiple regression and correlation analysis indicated the nature and the extent of the relationship existing between the study variables. Results were presented in frequency and descriptive table. The study findings revealed that the Saccos do credit referencing with CRB regarding lending decisions to borrowers and effective credit risk identification mechanisms. The credit department of Saccos search for the client historical records to determine risk level and that the Sacco has information gathering techniques which are effective and also they interview the credit applicant and carries out check list analysis prior to credit consideration. The study concluded that Sacco conducts business plan analysis to identify risk exposure and that the Sacco considers cash flow projections before credit approval. Also the collateral provided by the loan applicant is valued before the credit approval and that the borrower's capability is established before credit approval. The results showed that the conditions of loan are assessed by the Sacco and that the capital of the business is assessed before credit approval. The study recommended that the management of the deposit taking Saccos should perform credit referencing by engaging Credit Reference Bureau whenever making lending decisions. This would serve as an effective way to identify potential defaulters and delist them from credit consideration. The Saccos credit department should be empowered financially to be able to effectively gather historical information of an individual so as to determine that individual's risk level in addition to conducting check list analysis before granting credit to the applicant.

Key Words: *Credit Risk Identification, Credit Risk Appraisal, Credit Risk Monitoring, Credit Risk Control*

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INTRODUCTION

Globally, the challenge of management and control of risks has metamorphosed in to complexities occasioned by dynamics in the business environment (Levy, Hipel, & Howard, 2017). In many instances, risks appear in different facets and are strongly dynamic and incognito. The global financial crisis witnessed in the last decade coupled with a number of high profile corporate failures across the globe have made management of risk a key aspect in financial institutions sphere. Among all existing known risks, credit risk has posed a paramount issue worth attention by financial institutions globally which has caused financial institutions to ensue concerted efforts in taming and minimizing the adverse effects of credit risks usually through lending. The world's credit union system has a combined savings of $ 1.5 trillion (US dollars) and an asset base of $ 1.8 trillion (US dollars) out of which $ 1.2 trillion (US dollars) constituted the loan portfolio.

In Kenya, Savings and Credit Corporative Societies have faced myriad of challenges in their attempt to develop optimal credit risk management parameters partially due to constant unpredictable thrusts in local economic environment. Local empirical studies indicate that requests for loans are acted upon based on subjective intuitions informed by the borrowers' repayment track record (Fayman & He, 2017). Schroeck (2017) argue that majority of financial institutions have adopted credit scoring as their sole tool of evaluation. The 34 percent of the national savings are contributed by Saccos and 24 percent of domestic credit outstanding (CBK Report, 2017). The credit for the borrowers is generated from the deposits Saccos receive thus exposing the Saccos to higher credit risk which has the potential to plunge the Saccos to the financial distress and if unchecked can lead to bankruptcy.

The business environment of the deposits taking SACCOs is littered with high risks. The success of the Saccos to be sustainable lie with the approach it employs to curb these risks (Khan & Ahmed, 2017). Saccos reliance on finance lending to individuals and institutions justifies the need for prudent credit risk management which has the ability to affect the Sacco financial performance. Credit risk acts as an obstacle to the performance of Saccos since it leads to huge capital loses if not well managed (Schroeck, 2017).

Since 2014, 184 Saccos with permission to take deposits were licensed in Kenya. However, in 2018, the operating licenses of three deposit taking Saccos were revoked due to non-compliance issues. As of 2019 there were 181 deposit taking Saccos licensed and registered with SASRA (SASRA, 2018).

SACCO supervision report (2018) shows that members' loan disbursement accounted for nearly three quarters of the Saccos' total assets. The loan quality has posed a challenge since mean gross non-performing loans for licensed deposit taking Saccos stood at a whopping 9.6 percent which was far above the allowed limit in the prudential guidelines of SASRA of 5 percent. Saccos are highly exposed to major risks which are facing other businesses (Rejda, 2017). In Mombasa County, there are five registered deposit taking SACCOs as indicated by SASRA (2019) report. These SACCOs however have not been immune to the credit risk faced by other financial institutions in Mombasa County.

Statement of the Problem

Ideally, credit risk management strategies have the potential to minimize chances of loan default. However, the financial performance of Saccos viewed against other financial institutions has been rated very low (Gathurithu, 2018). Saccos are prone to high credit default rate attributed to the high risk strata it serves. For instance, Saccos default amount of loans increased from Ksh. 5 Billion in 2015 to above Ksh 10 Billion in 2018 (GoK, 2019).

In Mombasa County, there has been a recorded upshot of investment by Saccos in information systems and innovative products development like Automated Teller Machines (ATM) and other financial products in an attempt to compete with conventional financial institutions like MFIs and

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commercial banks. However, despite these investments the SACCOs have continued to record high default rate (SASRA, 2019). The SACCO credit risk identification and appraisal has been poor since many clients are employed in private sector where there is more high probability of job redundancy before settling the loan. This scenario has been exacerbated by the emergence of COVID 19 which has left many Sacco members without employment due to high rate of retrenchment thus cutting their contribution to the Saccos and stoppage of their repayments. This has necessitated a study to investigate the effect of credit risk management practices on SACCO performance.

Various studies have been done on credit risk management practices locally. For example, Chepkoech (2017) studied credit risk management and Micro Finance Institutions performance in Nairobi County and showed that credit terms and conditions have a significant positive effect on the performance of MFIs in Nairobi County. Njeru, Mohammed and Wachira (2018) did a study on the relationship between effectiveness of credit appraisal on loan performance of Commercial Banks in Kenya and concluded that credit appraisal was found to be very important in influencing performance. However, the studies reviewed focused on commercial banks and MFIs and none focused on deposit taking SACCOs' performance. This study sought to bridge the identified gaps by investigating the effect of credit risk management practices on financial performance of deposit taking SACCOs in Mombasa County.

Research Objectives

The general objective of this study was to investigate the effect of credit risk management practices on financial performance in deposit taking savings and credit cooperatives in Mombasa County. The specific objectives were;

- To determine the effect of credit risk identification on financial performance of deposit taking savings and credit cooperative societies in Mombasa County.
- To assess the effect of credit risk appraisal on financial performance of deposit taking savings and credit cooperative societies in Mombasa County.
- To examine the effect of credit risk control on financial performance of deposit taking savings and credit cooperative societies in Mombasa County.
- To establish the effect of credit risk monitoring practices influences the financial performance of deposit taking savings and credit cooperative societies in Mombasa County.

The study was guided by the following research hypotheses;

- **$H_0$1:** Credit risk identification has no significant effect on financial performance of deposit taking savings and credit cooperative societies in Mombasa County.
- **$H_0$2:** Credit risk appraisal has no significant effect on financial performance of deposit taking savings and credit cooperative societies in Mombasa County.
- **$H_0$3:** Credit risk control has no significant effect on financial performance of deposit taking savings and credit cooperative societies in Mombasa County.
- **$H_0$4:** Credit risk monitoring has no significant effect on financial performance of deposit taking savings and credit cooperative societies in Mombasa County.

LITERATURE REVIEW

Theoretical Framework

Credit Risk Theory

The theory of credit risk was propounded by Robert Merton in 1974. The theory is also referred to as structural theory. The theory posits that the event of default emanates from the evolution of organization's assets, shaped by infusion process with k parameters (constant). These models are defined and are based on specific issuer related variables. The category evolution is depicted by a models set where conditional loss on failure is externally defined, nonetheless keeping the

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endogenous nature of failure occurrence. In these models, the failure or default can result throughout all the corporate bond life rather than in bond's maturity (Longstaff & Schwartz, 2015, Saa-Requejo & Santa Clara, 2016). The dynamics of assets are modeled generally as a constrained infusion subject to an absorbing barrier. Credit risk theory is adopted in this study to support the credit risk identification and control since it affects the financial performance of deposit taking Saccos'.

Asymmetry Information Theory

Asymmetric Information theory was propounded in 1970 by George A. Akerlof. His basic argument is that in many markets the buyer uses some market statistic to measure the value of a class of goods. Thus the buyer sees the average of the whole market while the seller has more intimate knowledge of a specific item. Akerlof argues that this information asymmetry gives the seller an incentive to sell goods of less than the average market quality. The average quality of goods in the market will then reduce as will the market size. Such differences in social and private returns can be mitigated by a number of different market institutions.

The theory of asymmetric information argues that it may be impossible to distinguish good borrowers from bad borrowers (Auronen, 2017). which may result in adverse selection and moral hazards problems- Adverse selection and moral hazards have led lo substantial accumulation of non-performing accounts in cooperatives (Bofondi & Gobbi, 2016). The very existence of cooperatives is often interpreted in terms of its superior ability to overcome three basic problems of information asymmetry namely ex ante, interim and ex post (Uyemura & Deventer, 2015). Asymmetric information theory is adopted in this study to support credit appraisal since the success of Sacco on appraising for the borrowers character and business viability is through getting timely information.

Principal-Agent Theory

In the classical principal-agent theory, one party (the principal) leaves another one (the agent) some decision-making rights in order to do transactions for him due to better information availability and to do them in the principal's best interest because the agent's efforts have a great impact on the latter's welfare (Reekie et al, 2015), In business, owners or creditors of firms act as principals whereas management takes the role of the agent. That is why this theory is called principal-agent or just agency theory (Wolf, 2016). However, there are certain conflicts of interest arising in this relationship. Since the principal is unable to monitor the agent's activities perfectly and receive the same information as the agent without any cost, there is a certain risk of opportunistic behavior on the part of the agent.

Agency problems are thus due to information asymmetry. While owners of a firm only want to see high profits, managers prefer looking at various aspects of the business as well, such as their own utility, suppliers, costs, employees, customers or other investors (Reekie et al, 2015). Agency theory is therefore adopted in this study because there is need to reduce costs resulting from the conflicts between the managers, owners and debt holders in order to maximize financial performance. The theory supports financial performance of deposit taking Saccos.

Credit Management Theory

Woolcock in 2000 proposed the credit management theory which states that the markets for credit or loans are highly shaped by the banks (who are lenders) strategies for potential borrowers screening and by addressing the opportunistic behavior which is encouraged by the nature of loan contracts. Accordingly, lenders usually increase credit pricing to a level that they expect returns to be maximized. This often excludes small, risky and costly borrowers. The consumption of credit tends to be inversely related to both the interest rates and the required collateral. Financial institutions tend to apply the credit management theory taking

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advantage of the opportunistic behavior presented by potential borrowers. Consumption of credit is collated to the collateral requirements and a variable interest rate pricing policy might be utilized by individual banks (Tanui, Wanyoike & Ngahu, 2015). Credit management theory is adopted in this study because there is need to screen borrowers and address the opportunistic behavior in loan pricing policies to maximize financial performance. Thus it supports credit risk monitoring and control variables.

Conceptual Framework

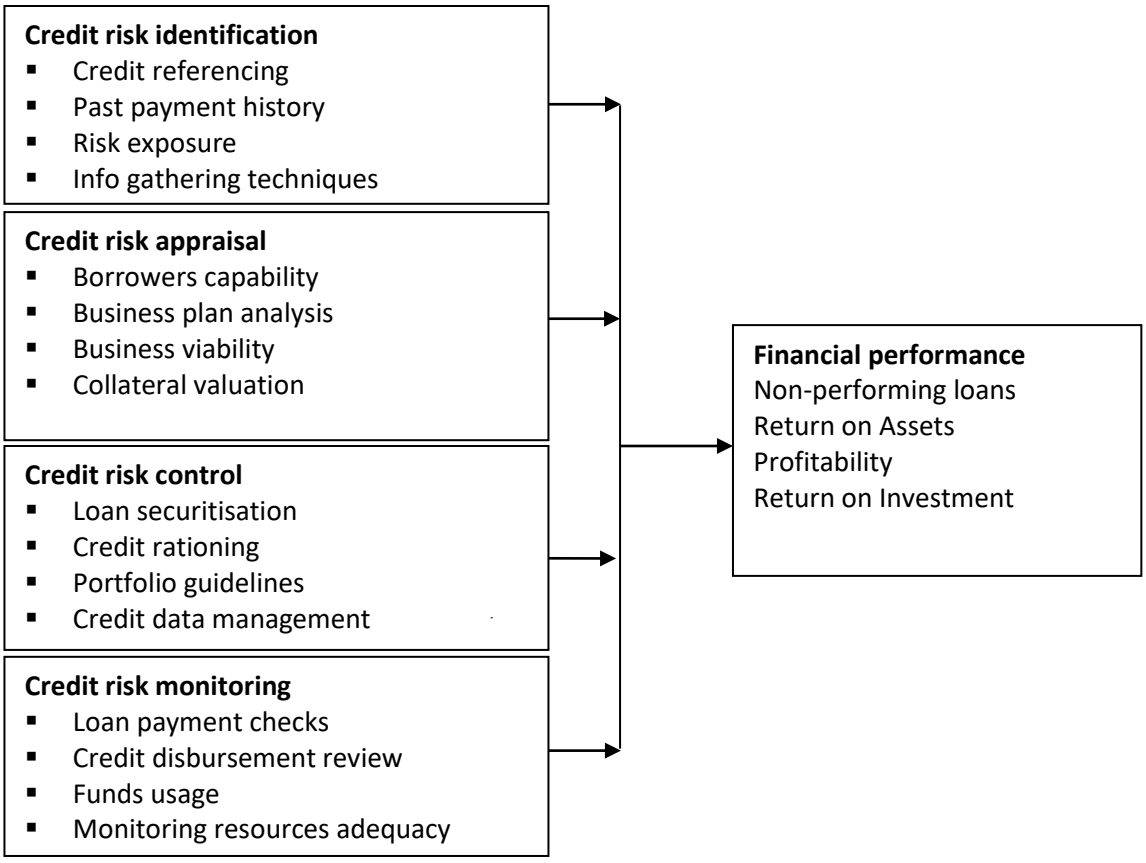

Figure 1: Conceptual framework

Empirical Review

Byaruhanga (2017) did a study to establish the effect of credit accessibility, terms of credit on agricultural cooperatives performance in Rwanda. The study targeted population was 196 agricultural cooperatives which were selected from the southern province districts in the country. The primary data was collected by use of questionnaires. Data analysis was done by use of SPSS tool and both descriptive and regression analysis were done on the collected data. The study results showed that there was a significant positive effect of credit terms, credit accessibility on agricultural cooperatives performance.

Aboagye and Otieku, (2016) did a study to investigate the effect of credit risk management on financial institutions profitability in Sweden. The specific objective was to assess if management of the risk related to that credit affects the profitability of the financial institutions. Secondary data was collected in the study and the results indicated that management of credit risk in financial institutions has become more important not only because of

the financial crisis that the world is experiencing nowadays but also the introduction of Basel II.

Chepkoech (2017) carried a study to investigate the effect of credit risk management on MFIs performance in Nairobi County. The study target population was all the 261 employees drawn from selected Micro-Finance Institutions in Nairobi County. The study adopted a multiple regression analysis. The study findings indicated that the terms of credit and credit conditions have a significant positive effect on the performance of MFIs in Nairobi County.

Kalui and Kiawa (2015) did a study to determine the credit risk management procedures effect on financial performance of MFIs in Kenya. Credit management procedures studied were identification of risk, risks monitoring procedures, and risk analysis and assessment procedures. The study employed descriptive research design. The study population comprised of credit managers and officers derived from fifty four MFIs in Nairobi County. The study results revealed that MFIs considered risk identification, risks monitoring, risk assessment, risk analysis as a process in credit risk management.

Korir (2015) did a study on the impact of credit risk management practices on the financial performance of Deposit Taking Microfinance institutions in Kenya. The research concluded that credit risk management practices are adopted by Deposit taking microfinance institutions in Kenya to mitigate against the credit risks which they are exposed to. The findings of the study show that credit collection practices have a significant positive relationship with performance of deposit Taking Saccos.

Njeru, Mohammed and Wachira (2017) study investigated the relationship between effectiveness of credit appraisal on loan performance of Commercial Banks in Kenya. Descriptive research design was used. Data was collected using a self-administered questionnaire. Credit appraisal was found to be very important in influencing performance of commercial banks. Findings also revealed that lending placed much reliance on use of past information.

METHODOLOGY

This study adopted a descriptive survey design which describes in detail events, situations and interactions between people and things (Cooper & Schindler, 2014). The study targeted management employees of deposit taking SACCOs in Mombasa County. According to Sacco Society Regulatory Authority (SASRA) (2020) there were five deposits taking SACCOs operating in Mombasa County. The study targeted 55 management employees of the three SACCOs.

The stratified sampling technique was used select sample size from the target population. A structured questionnaire was used to collect quantitative data for the purposes of answering the research questions for this study. Secondary data was obtained from already existing sources which included library books, documents, published journals and SACCO reports. Multiple regression analysis was used because it provides estimates of net effects and explanatory power. The statistical package for social sciences, SPSS (version 25.0) was used for data analysis.

The multiple regression model that aided the analysis of the variable relationships was as follows:

$$Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\varepsilon$$

Where;

Y = Financial performance

β_0 = Constant (intercept);

$\beta_1 \ldots \beta_4$=Regression coefficient of four variables.

X_1 = Credit risk identification

X_2 = Credit risk appraisal

X_3 = Credit risk control

X_4 = Credit risk monitoring

ε = Error term

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FINDINGS AND DISCUSSIONS

Descriptive Analysis

Descriptive analysis was conducted on the study variables to check the mean and standard deviation. The results were presented in the following tables.

Table 1: Credit Risk Identification

	N	Mean	Std. Deviation
Our Sacco does credit referencing with CRB regarding lending decisions to borrowers	48	3.20	.961
Our Sacco has effective credit risk identification mechanisms	48	4.63	1.326
Our credit department searches for the client historical records to determine risk level	48	4.53	1.196
Our Sacco has information gathering techniques which are effective	48	4.77	1.501
Our Sacco interviews the credit applicant	48	4.73	1.363
Our Sacco performs check list analysis prior to credit consideration	48	4.05	.749

It was observed from table 1 that respondents were indifferent to the statement that the Sacco does credit referencing with CRB regarding lending decisions to borrowers (mean = 3.20). Respondents agreed to the statement that the Sacco has effective credit risk identification mechanisms as indicated by a mean of 4.63. The respondents agreed to the statement that credit department searches for the client historical records to determine risk level (mean=4.53). Respondents further agreed to the statement that the Sacco has information gathering techniques which are effective (mean=4.77) and that the Sacco interviews the credit applicant (mean = 4.73). Respondents were in agreement with the statement that the Sacco performs check list analysis prior to credit consideration (mean = 4.05).

Table 2: Credit Risk Appraisal

Credit Risk Appraisal	N	Mean	Std. Deviation
Our Sacco conducts business plan analysis to identify risk exposure	48	4.37	1.474
Our Sacco considers cash flow projections before credit approval	48	4.40	1.163
The collateral provided is valued before the credit approval	48	4.70	1.088
The borrowers capability has established before credit approval	48	4.57	1.278
The conditions of loan is assessed by our Sacco	48	4.83	1.234
The capital of the business is assessed before credit approval	48	4.51	.904

It was observed in Table 2 that respondents agreed to the statement that the Sacco conducts business plan analysis to identify risk exposure and that the Sacco considers cash flow projections before credit approval as indicated by a mean of 4.37 and mean of 4.40 respectively. Respondents also agreed to the statement that the collateral provided is valued before the credit approval (mean=4.70) and that the borrowers capability has established before credit approval (mean=4.57). Respondents agreed to the statement that the conditions of loan are assessed by the Sacco and that the capital of the business is assessed before credit approval as shown by a mean of 4.83 and a mean of 4.51 respectively.

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Table 3: Credit Risk Control

	N	Mean	Std. Deviation
Our Sacco has clear portfolio guidelines	48	3.90	1.539
Our Sacco has clear documented credit rationing policies	48	4.70	1.088
Our Sacco has efficient credit data management	48	3.57	1.278
Our Sacco performs loan securitization by requesting clients to provide financial guarantees	48	4.50	1.280
The Sacco has credit risk control policies which are effective	48	3.27	1.437
The Sacco assesses borrowers capacity to repay	48	4.68	.954

From Table 3 it was observed that respondents agreed to the statement that the Sacco has clear portfolio guidelines and that the Sacco has clear documented credit rationing policies as indicated by a mean of 3.90 and mean of 4.70 respectively. Respondents were indifferent to the statement that the Sacco has efficient credit data management (mean=3.57). However, respondents were in agreement to the statement that the Sacco performs loan securitization by requesting clients to provide financial guarantees (mean=4.50). Respondents were indifferent to the statement that the Sacco has credit risk control policies which are effective (mean=3.27). However, respondents agreed that the Sacco assesses borrower capacity to repay as indicated by a mean of 4.68.

Table 4: Credit Risk Monitoring

	N	Mean	Std. Deviation
Our credit department subjects individual credit exposure to a final check before credit disbursement	48	4.47	.973
Our credit disbursement review covers compliance with set internal guidelines	48	4.43	.728
Our credit department checks the loan payment process to ensure it is paid	48	4.60	1.003
Our credit department has capacity to monitor the loan status	48	4.47	.730
The Sacco has adequate resources to follow up on loan repayment process	48	4.90	1.155
The Sacco performs routine checks on borrowers business	48	4.78	.591

From Table 4 it was observed that respondents agreed to the statement that the Sacco credit department subjects individual credit exposure to a final check before credit disbursement and that the credit disbursement review covers compliance with set internal guidelines as indicated by a mean of 4.47 and mean of 4.43 respectively. Respondents also agreed to the statement that the credit department always checks the loan payment process to ensure it is paid (mean=4.60) and that the credit department has capacity to monitor the loan status (mean=4.47). Respondent were in agreement to the statement that the Sacco has adequate resources to follow up on loan repayment process and that the Sacco performs routine checks on borrower's business as indicated by a mean of 4.90 and mean of 4.78 respectively.

Correlation Analysis

Before running the regression analysis, the researcher run the correlation matrix in order to check whether there was association between variables and also checked whether there was a multi-collinearity within the variable. Pearson product moment correlation coefficient (r) was used to aid in establishing correlation between the study variables of interest. Correlation coefficient shows the magnitude and direction of the relationship between the study variables. Pearson correlation coefficient was used to gauge the relationship between credit risk management practices and financial performance.

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Table 5: Correlation Coefficient

		Risk identification	Risk appraisal	Risk control	Risk monitoring	Financial performance
Credit risk identification	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	48				
Credit risk appraisal	Pearson Correlation	.586**	1			
	Sig. (2-tailed)	.000				
	N	48	48			
Credit risk control	Pearson Correlation	.319**	.226**	1		
	Sig. (2-tailed)	.000	.000			
	N	48	48	48		
Credit risk monitoring	Pearson Correlation	.253**	.560**	.379**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	48	48	48	48	
Financial performance	Pearson Correlation	.493**	.427**	.380**	.418	1
	Sig. (2-tailed)	.004	.000	.000	.000	

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

Correlation analysis findings revealed that there is a positive correlation between risk identification and financial performance (r=0.493, p-value=0.004). Therefore, an increase in risk identification leads to an increase in financial performance. Regarding risk appraisal, the correlation coefficient was also positive (r = 0.427, p-value < 0.000). This means that an increase in use of risk appraisal in Saccos leads to an increase in financial performance.

Results of the study also showed that there is a significant positive correlation between risk control and financial performance (r=0.380, p-value <0.05) implying that an increase in use of risk control improved the rate of financial performance. Correlation analysis findings revealed that there is a positive correlation between risk monitoring and financial performance (r=0.418, p-value=0.000). This means that the variables could be selected for statistical analysis like regression analysis.

Multiple Regression Analysis

A multiple regression model was adopted in the study to establish the statistical relationship between the independent and the dependent variables. The F-test was used further to determine the validity of the model while R squared was used as a measure of the model goodness of fit. The regression coefficient summary was then used to explain the nature of the relationship between the dependent and independent variables.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.692[a]	.479	.396	.26265	2.446

a. Predictors: (Constant), Credit risk identification, Credit risk appraisal, Credit risk control, Credit risk monitoring

b. Dependent Variable: Financial performance

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The regression results in Table 6 indicated that the coefficient of determination (R^2) is 0.479. This implies that 47.9 percent of variance in financial performance was explained by credit risk management practices (Credit risk identification, credit risk appraisal, credit risk control, and credit risk monitoring). However, the model did not explain 52.1 percent of variation in financial performance, suggesting that there are other factors associated with financial performance which were not included in the study.

Table 7: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.587	4	.397	9.925	.002[b]
	Residual	1.725	43	.040		
	Total	3.311	47			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Credit risk identification, Credit risk appraisal, Credit risk control, Credit risk monitoring

ANOVA results in Table 7 showed that the significance value in testing the reliability of the model for the relationship between the credit risk management practices and financial performance was obtained as 0.02 which is less than 0.05, the critical value at 95% significance level. Therefore, the overall model was statistically significant (P<0.05) in predicting the relationship between the study variables.

Table 8: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.991	.998		2.998	.006
	Credit risk identification	.465	.231	.404	2.013	.029
	Credit Risk appraisal	.427	.168	.059	2.541	.005
	Credit risk control	.363	.187	.157	1.941	.017
	Credit risk monitoring	.413	.118	1.009	3.509	.002

a. Dependent Variable: Financial performance

$$Y = 2.991 + 0.465X_1 + 0.427X_2 + 0.363X_3 + 0.413X_4$$

The regression results in Table 8 showed that for a 1-point increase in credit risk management practices, financial performance was predicted to increase by 2.991, given that all the other factors are held constant at zero. Further in the model it shows that a unit increase in credit risk identification would lead to an increase in financial performance by 0.465. A unit increase in credit risk appraisal would lead to an increase in financial performance by 0.427, a unit increase in credit risk control would lead to an increase in financial performance by 0.363, and a unit increase in credit risk monitoring would lead to an increase in financial performance by 0.413. The predictors had significance level of 0.05 and below meaning that they were all statistically significant at P<0.05. This implies that all independent variables significantly affected financial performance.

Discussion of Key Findings and Hypothesis Testing

The first objective of the study sought to investigate the effect of credit risk identification on financial performance. Regression analysis conducted proved that there was a positively significant effect of credit risk identification on financial performance as indicated by the values $\beta_1 = 0.465$, $t = 2.013$, $p<0.05$.

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The study concludes that a unit change in credit risk identification would lead to 0.465 unit change in financial performance. Further, since the $p<0.05$, the null hypothesis that credit risk identification has no significant effect on financial performance is rejected.

The second objective was to investigate the effect of credit risk appraisal on financial performance. Regression analysis result showed a positively significant effect of credit risk appraisal on financial performance as indicated by the values $\beta_2 = 0.427$, $t = 2.541$, $p<0.05$. The study concludes that a unit change in credit risk appraisal would lead to 0.427 unit change in financial performance. On hypothesis testing, since $p<0.05$ null hypothesis that credit risk appraisal has no significant effect on financial performance is rejected.

The third objective of the study sought to determine the effect of credit risk control on financial performance. Regression analysis conducted showed that there was positive significant effect of credit risk control on financial performance as indicated by the values $\beta_3 = 0.363$, $t = 1.941$, $p<0.05$. The study concludes that a unit change in credit risk control would lead to 0.363 unit change in financial performance. On hypothesis testing, since $p<0.05$, the null hypothesis that credit risk control has no significant effect on financial performance is rejected.

The study sought to establish the effect of credit risk monitoring on financial performance. Regression analysis conducted showed that there was positive significant effect of credit risk monitoring on financial performance as indicated by the values $\beta_4 = 0.413$, $t = 3.509$, $p<0.05$. The study concludes that a unit change in credit risk monitoring would lead to 0.413 unit change in financial performance. On hypothesis testing, since $p<0.05$, the null hypothesis that credit risk monitoring has no significant effect on financial performance is rejected.

CONCLUSSIONS AND RECOMMENDATIONS

The study concluded that the Saccos do credit referencing with CRB regarding lending decisions to borrowers and they effective credit risk identification mechanisms. The study results revealed that credit department of Saccos search for the client historical records to determine risk level and that the Sacco has information gathering techniques which are effective and also they interview the credit applicant and carries out check list analysis prior to credit consideration.

The study concluded that Sacco conducts business plan analysis to identify risk exposure and that the Sacco considers cash flow projections before credit approval. Also the collateral provided by the loan applicant is valued before the credit approval and that the borrower's capability is established before credit approval. The results showed that the conditions of loan are assessed by the Sacco and that the capital of the business is assessed before credit approval.

The study concluded that the majority of Saccos have clear portfolio guidelines and that they have clear documented credit rationing policies. Further the study concludes that the Saccos have efficient credit data management and they perform loan securitization by requesting clients to provide financial guarantees. Also the Saccos were found to have credit risk control policies which are effective and they all assess borrower capacity to repay.

On credit risk monitoring, the study concluded that the Sacco credit department subjects individual credit risk exposure to a final check before credit disbursement. Also the credit disbursement review covers compliance with set internal guidelines. It is concluded that the Sacco credit department always checks the loan payment process to ensure it is paid and that the department possesses capacity to monitor the loan status. The Saccos possess adequate resources to follow up on loan repayment process and that they perform routine checks on borrower's business.

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The study recommended that the management of the deposit taking Saccos should perform credit referencing by engaging Credit Reference Bureau whenever making lending decisions. This would serve as an effective way to identify potential defaulters and delist them from credit consideration. The Saccos credit department should be empowered financially to be able to effectively gather historical information of an individual so as to determine that individual's risk level in addition to conducting check list analysis before granting credit to the applicant.

The study recommended that the management of the Saccos should frequently perform analysis on business plans with a view to identify risk exposure of the business credit applicants. The Saccos should project the cash flow estimations of an enterprise prior to credit consideration. This would answer the question of whether the entity will honor its obligations or default. In case of collateral, the Sacco should value the collateral presented in order to determine the credit ceiling for the applicant.

The study recommended that the management of the Saccos should develop portfolio guidelines with clarity and should come up with clear credit rationing policies which should be clearly documented. The Saccos should develop a credit data management center to efficiently control credit risk and the Sacco should make it a routine to perform loan securitization by requesting clients to provide financial guarantees.

The study recommended that the Sacco credit department should subject individual credit risk exposure to a final check before credit disbursement. The Sacco credit department should always check the loan payment process to ensure it is paid. The management of Saccos should empower the credit department by providing adequate resources for monitoring the loan status as well as to follow up on loan repayment process.

Areas of Further Study

The study was limited on establishing the credit risk management practices and financial performance of deposit taking Saccos in Mombasa, Kenya. However, since only 47.9% change in financial performance was explained by the independent variables in this study, that is, credit risk identification, credit risk appraisal, credit risk control and credit risk monitoring, the researcher recommends that a study be carried out on other credit risk management practices and their effect on financial performance of other financial institutions like Microfinance Institutions or insurance firms in Kenya.

REFERENCES

Aduda, J. & Gitonga, J. (2014). The Relationship between Credit Risk Management and Profitability among the Commercial Banks in Kenya. *Journal of Modern Accounting and Auditing,* 7(9), 934-946

Afriyie, H. O. & Akotey, J. O. (2017). *Credit Risk Management and Profitability of Selected Rural Banks in Ghana.* Catholic University College of Ghana.

Al-Tamimi, I. I., & Al-Mazrooei M., (2012). Banks" Risk Management: A Comparison Study of UAE National and Foreign Banks. *The Journal of Risk Finance,* Vol. 8 No.4. 394-409.

Auronen, L. (2017). *Asymmetric Information: Theory and Applications.* Paper Presented at the Seminar of Strategy and International Business, Helsinki University of technology. Helsinki.

Baldoni, R. J. (2015), Best Practices Approach to Risk Management. *TMA Journal*. 30-34.

Bhattarai, Y. R. (2016). Effect of Credit Risk on the Performance of Nepalese Commercial Banks. *NRB Economic Review,* Tribhuvan University

Bizuayehu, M. (2015). *The Impact of Credit Risk on Financial Performance of Banks in Ethiopia.* Addis Ababa University

Bofondi, M. & Gobbi, G. (2016). *Bad Loans and Entry in Local Credit Markets.* Bank of Italy Research Department, Rome

Burns, W. J. & Bryman, S. M. (2013). Information and Managers: a Field Study. *Journal of Management Accounting Research*, 5, 84-123.

Central Bank of Kenya (2017). *Bank Supervision Annual Report*. Retrieved from https://www.centralbank.go.ke

Cooper, D. R., & Schindler P. S. (2014). *Business research methods,* McGraw-hill, Maidenhead, UK.

Fallon, W. (2014), *Calculating Value-at-Risk Working Paper 96-49.* Wharton Financial Institutions Center, The Wharton School, University of Pennsylvania, 1996.

Fayman, A. & He, L. T. (2016). Prepayment risk and bank performance. *Journal of Risk and Finance*

Fujo, K. G. & Ali, A. I. (2016). Factors Affecting Financial Performance of Savings and Credit Societies in Kilifi County- A Case Study of Imarika Sacco. *The International Journal of Business & Management*, 4(2), 448-469

GOK. (2019). *SACCOs Performance Report 2018,* Ministry of Cooperative Development. Government Press: Nairobi Kenya

Greene, M.R. & Trieschmann, J.S. (2014), *Risk and Insurance*, South-Western Publishing Co. Cincinati, OH,

Harker, P. T. & Satvros, A. Z. (2017). What drives the performance of financial institutions? *The Wharton School, University of Pennsylvania, Philadelphia, PA, working paper.*

Kalui, F. M. & Kiawa, E. (2015). Effects of credit risk management procedures on financial performance among microfinance institutions (MFIs) in Kenya: a case of MFIS in Nairobi County. *International Journal of Humanities Social Sciences and Education (IJHSSE)*

Kagoyire, A. & Shukla, J. (2016). Effect of Credit Management on Performance of Commercial Banks in Rwanda (A Case Study of Equity Bank Rwanda Ltd). *International Journal of Business and Management Review,* 4(4), 1-12.

Khan, T., & Ahmed, H. (2015), Risk Management: An Analysis of Issues in Financial Industry *IRTI/IDB Occasional Paper, No. 5*.

Kimoi, A., Ayuma, C. & Kirui, K. (2016). Assessment of Credit Risk Management Practices on Organizational Performance: A survey of Savings and Credit Co-operative Societies in Eldoret Town Kenya. *International Journal of Scientific & Engineering Research,* 7(5), 416-425

Kimotho, D. N. & Gekara, M. (2016). Effects of Credit Risk Management Practices on Financial Performance of Commercial*: International Journal of Economics & Finance*, 2 (3), 161-189

Kothari, C. (2014). *Research methodology methods & techniques* (2nd rev. ed.). New Delhi: New Age International (P). Lewis, W.A.

Kwaku, D. K. (2017). Assessing Credit Risk Management Practices in the Banking Industry of Ghana: Processes and Challenges. *Global Journal of Management and Business Research,* 15 (6), 1-11

Lagat, F.K., Mugo, R. & Otuya, R. (2014). Effect of Credit Risk Management Practices on Lending Portfolio among Savings and Credit Cooperatives in Kenya. *European Journal of Business and Management*, 5(19), 93 – 105.

Levy, J. K., Hipel, K. W., & Howard, N. N. (2017). Advances in Drama Theory for Managing Global Hazards and Disasters. Part I: Theoretical Foundation. *Group Decision & Negotiation,* 18(4), 303-316.

Longstaff, P., & Schwartz, E. (2015), "A simple approach to valuing risky fixed and floating rate debt", *Journal of Finance*, Vol. 50, 789-819.

Makori, O. G. (2015). *Effects of Credit Risk Management Practices on Profitability of Deposit Taking Sacco's in Nairobi County.* Management University of Africa, Kenya

Mugenda, O. M., & Mugenda, A. G. (2012). *Research methods: Quantitative and Qualitative approaches*. Nairobi: Acts press.

Mutua, J. M. (2015). Effect of Mitigating Credit Risk on Performance of Commercial Banks in Kenya: A Case of Chuka Town. *European Journal of Business and Social Sciences,* 4(7), 113 – 125

Ngwa, E. (2015). *Credit Risk Management in Banks as Participants in Financial Markets. A Qualitative Study of the Perception of Bank Managers in Sweden*. Umeå School of Business

Njiru, M. (2014). *A Survey of Credit Risk Management by Coffee Cooperatives in Embu district.* Unpublished Thesis, University of Nairobi, Kenya.

Raad, M. L. (2015). Credit Risk Management (CRM) Practices in Commercial Banks of 41 Bangladesh: A Study on Basic Bank Ltd. *International Journal of Economics, Finance and Management Sciences*. 3(2), 78-90.

Rejda, G. E. (2017). *Principles of Risk Management and Insurance,* (10th Ed.). Boston, MA: Pearson Education, Inc.

Riel, M. M. (2010), *Learning with interactive media: Dynamic support for students and teachers.* Interactive technology laboratory report, 4

Saa-Rcqueio, J., Santa Clara, P. (2016), *"Bond pricing with default risk"*, working paper. UCLA, Los Angeles, CA,

Sacco Societies Regulatory Authority (SASRA) (2019). *Sacco Supervision Report: Deposit Taking SACCOs*. In house Publication.

SACCO Societies Regulatory Authority (SASRA) (2016). SACCO Annual Report . *In house Publication.*

Sambasivam, Y., &Biruk, A. (2013) Financial Performance analysis of GOHE Co-Operatives Savings and Credit Union in Bure Woreda, Ethiopia. *International journal of economics and business studies*. 02(06).

Schroeck, G. (2016), *"Risk management and value creation in financial institutions",* John Wiley and Sons, Inc.

Sekaran, U., & Bougie, R. (2014). *Research Methods for Business: A skill Building Approach.* (5th ed.). New Jersey: John Wiley and Sons.

Sufi, F. A. & Qaisar, A. M. (2016). Credit Risk Management and Loan Performance: Empirical Investigation of Micro Finance Banks of Pakistan. *International Journal of Economics and Financial Issues*, 5(2), 574-579.

Tanui, J. K., Wanyoike, D. M. & Ngahu, S. (2015). Assessment of Credit Risk Management Practices on Financial Performance among Deposit Taking SACCOs in Nakuru East Sub County, Kenya. *International Journal in Management and Social Science*, 3(5), 602-610

Uyemura, D.G., Deventer, D.R. (2015), Risk Management in Banking: Theory and Applications of Assets and Liability Management, Banking Publication, Kamakura. 59 Honolulu, HI,

Williams, C.A., Smith, M.I., & Young. P.C. (2014). *Risk Management and insurance*. Irwin McGraw Hill.