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FINANCIAL RISK MANAGEMENT AND PROFITABILITY OF DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN NYERI COUNTY, KENYA

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ABSTRACT

Profitability is a key aspect of organization financial performance. Kenya SACCOs have been rated fastest growing SACCOs in Africa. However, this growth is largely attributed to growth in membership and penetration. On the other hand the sub sector has recorded irregular trend on the profitability over the last half a decade. Though past literature has tried to link financial risk management to profitability levels, a range of knowledge gaps remain undressed. The current study therefore sought to establish the effect of financial risk management on profitability targeting deposit-taking SACCOs in Nyeri County. To address this objective, the study targeted the following specific objectives; to examine the effect of credit mitigation, liquidity risk controls operational risk mitigation and finally compliance risk mitigation on profitability of deposit taking SACCOs in Nyeri County. Descriptive study design adopted targeting a population of 8 deposit-taking SACCOs. A census study approach was used to subject all the SACCOs to study. The respondents comprised of deposit taking SACCO managers or operational manager. Thus, in total, the study targeted 8 respondents from the management of the SACCOs. Questionnaires were adopted as a tool for data collection. The researcher administered questionnaires to the respondents by dropping to the respondent office and collected at convenient date agreed by both parties. Before undertaking the study, the researcher conducted a reliability test to assess the consistency of the tool using Cronbach's Alpha. The study used descriptive and inferential statistic in summarizing the data. Under descriptive statistics, the researcher used mean and standard deviation. To test the significance of study variables, the researcher used Pearson correlation and simple linear regressions. The researcher adhered to research ethic during data collection period. The study findings are presented in charts and tables. The study found compliance risk control; liquidity risk control and operational risk control had significant effect on the performance of Saccos in Nyeri while credit risk control was found insignificant in predicting performance of Saccos in Nyeri County. The study recommends Saccos to intensify the compliance risk control, liquidity risk control and the operational risk control practices in enhancement of Sacco's performance.

Key Words: *Credit Risk Mitigation, Liquidity Risk, Operational Risk, Compliance Risk, Financial Risk Management*

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1. Introduction

The World Council of Credit Unions (WOCCU, 2018) describes Savings and Credit Cooperative Societies (SACCOs) as essentially formal organizations created voluntarily with the goal of achieving common objectives. SACCOs target the financially excluded class of clientele. The cooperatives carry out a very key role to economic development by availing affordable financial services including credit and investment advice to members. Vision 2030, the Kenya's economic blue print underpins the importance of SACCOs to the economy as important players to promotion of financial inclusion through credit provision for household economies; mobilizations of savings; and a deepening of financial access. It provides direct work chances to more than 500,000 and indirectly to over 2 million Kenyans (SASRA, 2017). The Kenyan SACCO sub sector continues to register positive growth and contributing to financial inclusion (International Cooperative Alliance, 2017). According to Bwana and Mwakujonga (2013), the Kenyan Co-operative movement ranks number one among co-operative societies in Africa and number seven among the co-operative movements in the world in terms of growth. WOCCU (2013) argues that SACCO sector in Kenya has been growing swiftly expanding sector globally. Nevertheless, the rate of growth has been slackening in the recent past. In 2016, the sector posted a growth of 12.40 percent compared to previous year's growth rate of 14.80 percent which represented a decline of about 2.40 percent in growth rate. The same condition is reflected with regard to profit growth of the SACCOs which has been lessening.

The profitability of SACCOs has registered stagnating and sometimes declining growth. This condition is occasioned by declining asset quality especially the loan assets which represent the major business concern. SASRA (2017) reported an upsurge in the amount of nonperforming loans in the sector. Notably, the level of non-performing loans experienced an upward movement from 5.12 percent in 2015 to 5.23 percent in 2016 and further to 6.14 percent in 2017 which greatly affects the ability to guarantee profit growth. The level of Non-Performing Loans remains way above the threshold set by WCCU (5 percent). According to SASRA (2017), poor asset quality has continued to lead to shrink the rate of growth on ROI (assets) of the societies. The ROA for the Deposit Taking SACCOs stood at 2.69 percent, 2.45 percent and 1.89 percent in 2017, 2016 and 2015 respectively. Notably, although the return on assets has registered an increase, the rate of increase in profitability has been slowing down. To be precise, the return on assets grew by 22.90 percent in 2016 compared to a growth of 9.80 percent in 2017. The diffused growth in profitability of SACCOs has been linked to exposures to financial risks. The interest margin to gross income ratio improved slightly from 42.15 percent in 2016 to 42.29 percent in 2017 although the figure remained lower than 2015 rate of 43.01 percent. The cost income ratio has also been worsening growing from 62.80 percent in 2016 to 66.10 percent in 2017. The same is reflected with regard to non-interest expenses to gross income which escalated from 41.35 percent in 2016 to 43.99 percent in 2017. Finally, the operating expense to total assets ratio moved upward from 5.13 percent in 2015 to 5.44 percent in 2016 and 5.29 percent in 2017 which reflected growing inefficiency in generating profit. According to the Financial Sector Development Trust (2017), the Kenyan SACCO sub sector has continued to operate along a weak accounting and control structures, exposing billions of savers' funds at risk. The report highlights that SACCOs have continued operating high risk models that are prone to many risks; key among them credit, liquidity, and operational risk exposures. The risks have exposed sector players to systemic risk of financial distress and insolvency. The World Council of Credit Unions (WOCCU, 2018) highlights the key challenges facing cooperatives as relating to a

variety of risk exposures including compliance, market to include mission drifts, income generation, compliance risks, operational risks, risk associated to credit, risk as a result of organizations liquidity, strategic risks and interest rate risks.

Bessis (2015) argues that financial risk management comprises of recognition of threat, valuation and prevention of threats from affecting organization's assets. The common threats include financial ambiguity, legal burdens, and mistakes originating from poor strategies, misfortunes and natural adversities. McNeil, Frey, and Embrechts (2015), argues that the art of managing financial risk demand one to identify, assess, and prioritize risks and thereafter apply organized and cost effective resource allocation to decrease, control possibilities of unwanted occurrence increasing organizations' opportunities. Market forces on organizations financial and liabilities have been associated with financial risk. Financial risk also comprise of market risks associated with price change, change of exchange rate, strategic errors, operations, legal, credit and organisation liquidity (Hopkin, 2018). In the context of SACCOs, the common risks include liquidity, operational, interest rate and credit risks. As such, a proactive risk management approach in the SACCOs should be integrated to firm's strategy and activities (SASRA, 2017).

Wu and Olson (2015) describe credit risk as the likelihood that a debtor will be either unwilling or unable to pay his dues (interest and principal) to the SACCO as per the terms specified in the loan agreement, resulting in financial loss for the firm. Failure to get back the amount in principal and interest not only interrupts the cash flows but also increases costs for collection (Sadgrove, 2016). Credit risk control encompasses measures established to mitigate the possible risk of loss following default of payment by the borrower (Brown & Moles, 2014). According to Wolke (2017), operational risk entails the projection of loss as a result of scarce or neglecting processes, structures or guidelines. These may be occasioned by employee errors, systems failures or fraud. Savings and Credit Cooperative Societies should establish an operational risk control structure that suits the manner, measure and involvedness of their processes to efficiently recognize, evaluate, monitor and mitigate operational risks (SASRA, 2017). According to Venkat and Baird (2016), liquidity risk is feared to occur when SACCO fails to collect adequate finances to address its financial obligations as they become due. The SACCO needs to manage both their short-term cash flow risk and long-term funding risk. SASRA (2017) describes liquidity risk control in the context of SACCOs as the measures undertaken to enhance potential to react to new loan needs and attend to unplanned savings withdraws at affordable cost. Persistent liquidity pressure can cause financial strain or make an organisation bankrupt (Kivuvo & Olweny, 2014).

Market risk mitigation control concerns measure to alleviate the possible loss of fund due to hostile trends of interest rate, change in foreign rates, commodity prices and equity (McNeil et al., 2015). SASRA (2017) describes market risk as the danger of losing the SACCOs earning and capital from volatility of trends in rate of interest, foreign exchange rates and prices. The main component of market risk that has an implication to SACCOs is the interest rate risk. Price risk only applies with relation to sensitive debt instruments (Hopkin, 2018). Interest rate risk for SACCOs arises from a mismatch between source of funding, debt and deposits and the loans which is propagated by mismatch between the time when rate changes and the time when the cash flows (price alteration risk). Changes in the rate of interest potentially alter prevailing organizations interest value associated to a specific asset and specific liabilities by making changes in present value of the future cash flows.This study targets SACCOs in Nyeri County. There are 8 deposit taking SACCOs licensed by SASRA (The Directorate of Co-operatives

Development, Nyeri County, 2018). Nyeri County has six sub counties in which all these 8 SACCOs are located; Othaya, Tetu, Mukurweini, Kieni, Nyeri Town and Mathira. The 8 Deposit Taking SACCOs are among the total 6,000 SACCOS licensed to operate in Kenya.

2. Statement of the Problem

Despite registering very good growth and penetration, the Kenyan SACCO sub sector has showed mixed indicators with regard to profitability especially over the past half a decade (SASRA, 2017). The return on assets for the sector improved marginally from 0.24 percent to 2.69 percent in 2017 from 2.45 per cent observed in 2016. In 2016, ROA again grew slightly by 0.56 percent rising from 1.89 percent in 2015 to 2.45 percent in 2016. However, although the return on assets growth is on a marginal upward trend, the rate of growth itself has been declining. The SACCOs were not however improving in containing their costs with the operating expense to total assets ratio increasing from 5.13 percent in 2015 to 5.44 percent in 2016 and standing at 5.29 percent in 2017 (Central Bank of Kenya, 2016).

The diffused profitability of SACCOs has been linked to exposures to financial risks. Financial Sector Development Trust (2017) argues that Kenyan SACCO sub sector has continued to operate along a weak accounting and mechanism, exposing billions of customer savings at risk. The report highlights that SACCOs have continued operating high risk prototypes that are prone to many risks key among them credit, liquidity, and operational risk exposures. The risks have exposed sector players to systemic risk of financial distress and insolvency. While theories suggest that financial risk management affects the profitability, empirical evidence remains scanty, especially with regard to deposit taking SACCOs. Arif and Showket (2015) conducted a study to assess how financial risk influenced performance targeting insurance firms from India. Results demonstrated that financial risks negatively affect financial performance. Assessing on the method used by Showket, to analyze how the measures put in place to control these risks would impact on financial performance.

Rop and Rotich (2018) conducted a study to examine how risk management practices affected profitability targeting Jomo Kenyatta Foundation as a case of state commercial firms. It was observed that financial risk mitigations determine performance of firms' finances. There is need to conduct a research to determine how each component of financial risk controls influences profitability of organizations in Kenya. Akong'a (2014) conducted a study to assess how financial risk controls influenced profitability of Kenyan banks. Financial risk management was found to have positive relationship with profitability of banks. Contextual gaps emerge on need to shift focus to SACCOs as a significant component of the financial sector. This study also probed for significance of the variables on profitability by using various inferential analysis approaches, a principal factor missing in most of reviewed literature. To address the gaps highlighted and expand knowledge on the financial risk controls, the study concentrated on financial risk management and profitability of Deposit-taking SACCOs.

3. Research Objectives

The overall objective of this study was to determine the impact of financial risk management on profitability of deposit-taking Savings and Credit Cooperative Societies in Nyeri County, Kenya.

In realizing the objective above, the following specific objectives guided the analysis of risk management and financial performance:

i) To establish the effect of credit risk mitigation on profitability of Deposit-Taking SACCOs in Nyeri County, Kenya.
ii) To determine the effect of liquidity risk control on profitability of Deposit-Taking SACCOs in Nyeri County, Kenya.
iii) To assess the effect of operational risk mitigation on profitability of Deposit-Taking SACCOs in Nyeri County, Kenya.
iv) To assess the effect of compliance risk mitigation on profitability of Deposit-Taking SACCOs in Nyeri County, Kenya.

4. Theoretical Review

Theories that related to this study are reviewed under this section. The main guiding theory is Ross (1973) agency theory. The Risk Management Theory by Pyle (1999) and Coase (1937)'s New Institutional Economics Theory are also reviewed.

4.1 Agency Theory

The agency theory was authored by Ross (1973) and explains the associations that exist between the principal(s) and manager(s) in a given business context. For Deposit taking SACCOs, agency association between shareholders as the principals and the organisation offering management as the agents (Miller & Sardais, 2011). The shareholders as owners of the SACCOs delegate management of their business to managers. Shareholders have different risk appetites with management, a situation which gives rise to agency conflicts. The theory provides a framework for resolving problems that exist between principals and agents who are hired to act in the best interest of the principals (Bosse & Phillips, 2016). The primary agency relationship represents differences in risk taking attitude of management as stewards of the firms and shareholders as the owners. While management would prefer risk to be avoided all together so as not to clash with return goals, the owners would prefer a prudent financial risk management approach that maximises the value of their investment. Zajac (2015) observed that managers would prefer to avoid risky undertakings with an aim of minimizing the inconsistency of returns. Shareholders would prefer adoption of a prudent financial risk management approach to achieve congruence of their goals and the goals of the managers. The framework helped in assessing the effect of financial risk management on profitability of SACCOs.

4.2 Risk Management Theory

The risk management theory was developed by Pyle (1999) and centered on determining the significance of risk management as a practice. Since the theory was oriented to banking environment, the theorists considered particularly market risks and credit risks. Eichhorn (2004) observes that both market and credit risks yields direct and indirect impact on banks performance and sustainability. According to Rampini, Viswanathan, and Vuillemey (2019), the risk management approach considers market risk as a key contributor to value loss explained as the change in net value of asset. Key market factors that affect the value of assets include movements in interest rate, exchange rates, equities and commodity prices (Wu, Olson, & Dolgui, 2015). As observed by Eichhorn (2004), the theory challenges foundations of Markowitz of the modern portfolio theory which holds that risk of a portfolio can be considered as a sum of various risk components. As such, individual considerations for each component need to be effected. Proponents argue that portfolio risk is a function of portfolio return, a factor that is invariant to alterations in portfolio composition (VanHoose, 2017). Confronted with many investment options, managers should consider a tradeoff between the risks and returns associated

with choice investments and make a decision that best serves the interest of shareholders (Saunders, Cornett, & McGraw, 2006).

As measurement of risk is a costly affair, SACCO managers should always strike a compromise between precision and cost (Bessis, 2015). An objective risk management approach, effectively determines the maximum value of asset loss that the firm (SACCO) is likely to incur from a certain investment option (Friday, Ryan, Sridharan, & Collins, 2018). The risk management theory applies two key methods on assessment of risk associated with investments; scenario analysis and value at risk (McNeil et al., 2015). Scenario analysis, besides being subjective, ignores distribution assumption of determination of asset risk and further assumes that future results will resemble those of the past (Olson & Wu, 2015). On the other hand, value at risk (VAR) considers distribution of asset returns to estimate the potential losses associated with a given set of investments. Bromiley, McShane, Nair, and Rustambekov (2015) posit that VAR method integrates a framework of sound economic theory that slots in market structure. The theory therefore finds viable application to the determination of the effect of credit risk mitigation, interest rate risk control, liquidity risk control, operational risk mitigation and compliance risk mitigation on profitability of SACCOs in Nyeri County, Kenya.

4.3 New Institutional Economics Theory

Coase (1937) developed the New Institutional Economics Theory envisaging that risk management approach need to be established by firms or developed by the entities within the market or industry. The theoretical framework underpins the importance of risk management as a practice, indicating that firms could derive superior financial performance as a result. Risk management guidelines help avert losses from potential imprudent decisions by managers that could otherwise hurt the performance direction of investments (Williamson, 2000). Financial risk management represents a prudent system of regulation of management actions to minimize losses as a result of unsupported decisions (Furubotn & Richter, 2010). On this premise, theorists support a case for regulation arguing that controlled firm report higher probability driven by hedging of substantial risk due to tight inspection and minimization of transaction and contract costs. In conclusion therefore, the theory opines that a prudent financial risk management framework positively contributes to firms' performance The theory guides the analysis and conclusion on the effect of credit risk mitigation, liquidity risk control, operational risk mitigation and compliance risk mitigation on profitability of firms.

5. Conceptual Framework

The conceptual framework illustrates the variables of interest to the research and provides the hypothesised relationships among the variables. The variables are classified into predicted variable and predictor variable (s). The predicted variable is profitability which is measured using return on assets (ROA). The predictor variable (s) is financial risk management and includes compliance risk mitigation, credit risk control, and operational risk control and liquidity risk mitigation. Figure 1 presents the conceptual framework.

Conceptual Framework

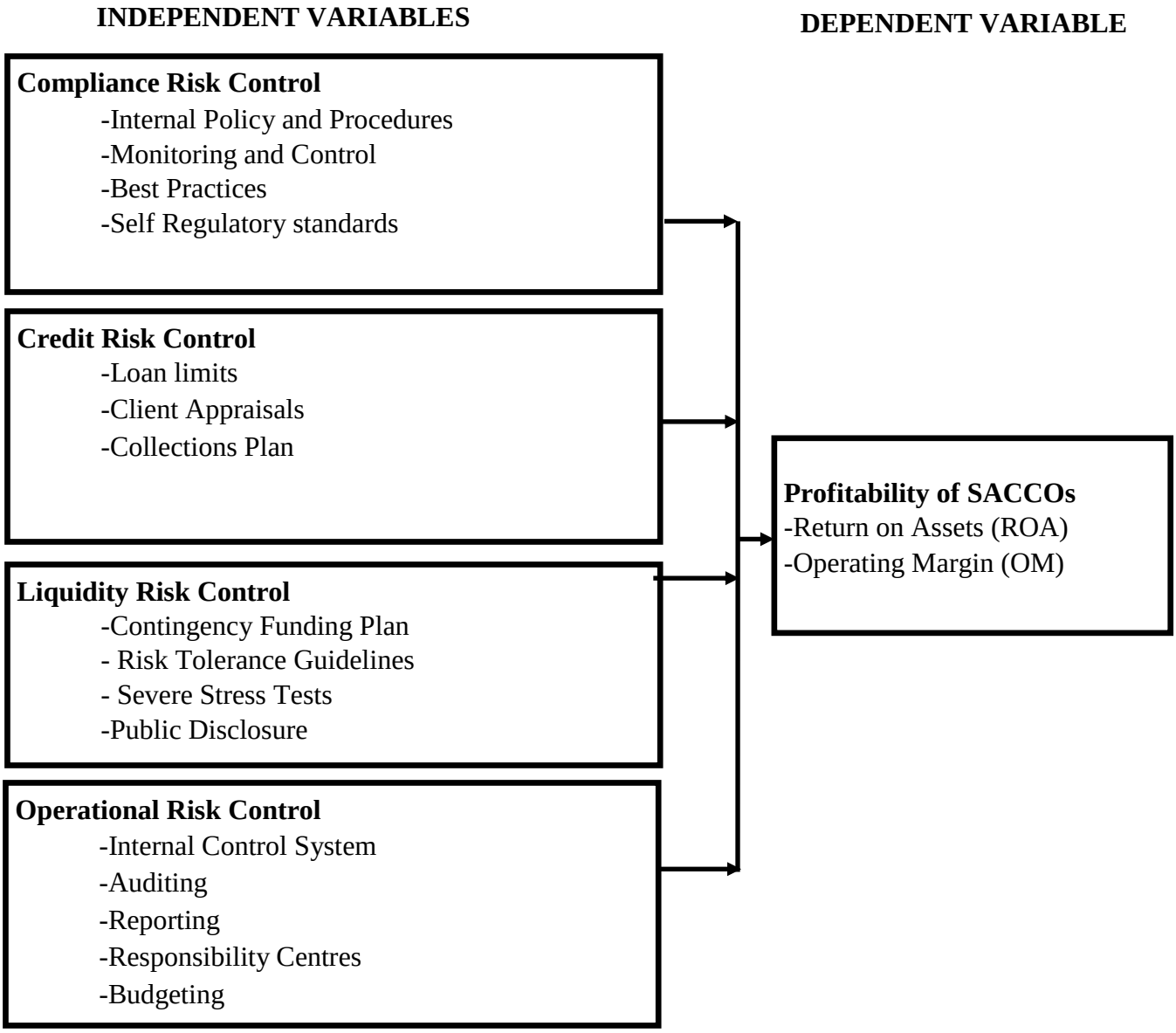

Figure 1 Conceptual Framework

Source: *Researcher (2019)*

6. Research Methodology

The study used Descriptive survey research design. The design seeks to establishment the what, where and the manner of an occurrence of a phenomenon(Bulmberg, Cooper & Schindler 2011). Additionally, Kothari (2011) outlines a descriptive survey research design as involving the purpose of the occurrence with regard to a given set of variable. The approach aids in explanation of nature and direction of relationships among certain variables without causing an alteration of anything in that context (Mugenda & Mugenda, 2003). The current study seeks to analyse financial risk management effects on profitability of Deposit taking SACCOs which

characterises current prevailing conditions. This condition explains the preference of the descriptive survey design as the condition can only be explained as it stands without manipulation. The target population included 8 Deposit Taking SACCOs accredited by the SASRA (2017) to operate in Nyeri County, Kenya. Purposive sampling technique was adopted to identify either operations manager or SACCO Manager. The class of respondents selected was preferred as they are best polished with information sought regarding financial risk management and profitability. Due to the size of target population, census method was used. Census method was economically viable and therefore highly recommended as it provides more accurate findings reducing possible errors associated with sampling (Kothari, 2008). The census approach was preferred as the population was relatively small.

Semi structured questionnaire was used to captured the primary data while secondary data was captured using a checklist. (Dalati & Gómez, 2018) Opine that questionnaires are effective in collecting data from a large number of people with cost and time efficiency. Before data collection, the reliability and validity of study tool was tested. Pre-testing and expert opinion was employed with regard to validity while Cronbach's Alpha coefficient was computed to assess the reliability of the study tool. Questionnaires also accorded respondents a privilege to give their contribution on the subject of the study (Phellas, Bloch and Seale, 2011). The researcher used secondary data checklist to review desired data contained in the management and financial reports of the SACCOs. Pre-testing and expert opinion were employed with regard to validity while reliability of the tool was determined using Cronbach's Alpha coefficient. The researcher used descriptive statistics to describe the data and inferential statistics to explain how the variables in the study relate to one another. The descriptive statistics included means and standard deviations while inferential statistics such as Pearson correlation coefficient and simple regression analysis was used in this study. The study adopted the regression model (Kutner, Nachtsheim & Neter 2004).

7. Data Analysis Results

The researcher also fitted the data into the regression model to assess the effect of compliance risk control on the performance of the Saccos in Nyeri County.

Table 1: Percentage variations of performance explained by compliance risk control

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923[a]	.851	.826	.01419

a. Predictors: (Constant), compliance

Table 1 provides adjusted R Square which provides statistics on the amount of performance variations explained by compliance risk control among the Saccos in Nyeri County. The study found that 82.6% of variations in performance of Saccos in Nyeri County are explained by compliance risk controls. Table 2 provides statistics used to assess the significance of regression model in predicting performance of Saccos in Nyeri County using compliance risk control.

Table2: Significance of regression model on prediction of Sacco's performance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.007	1	.007	34.337	.001[b]
	Residual	.001	6	.000		
	Total	.008	7			

a. Dependent Variable: performance

b. Predictors: (Constant), compliance

The model significance to predict the performance of Saccos was evaluated at α=0.05. The study found the model was significance in predicting the performance of Saccos in Nyeri County. Table 3 presents the contribution of compliance risk control on the performance of Saccos in Nyeri County. The table presents the coefficients of regression model and their significance in prediction of performance of DT-Saccos in Nyeri County.

Table 3: significance of compliance risk control in predicting Sacco financial performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.001	.038		.037	.972
	compliance	.052	.009	.923	5.860	.001

a. *Dependent Variable: performance*

The study found compliance risk control coefficient (0.052) is a statistically significance in prediction of Sacco performance in Nyeri County using regression model at α=0.05. This can be fitted in the regression model to give; Y=0.052compliance risk control(X_1) +0.001. This implies that compliance risk control had significant effect on the performance of the SACCOs in Nyeri County a finding that is consistent with Wanjiru (2016) who found compliance risk management positively affected the performance of organisations. The study also confirms the findings of Maniagi (2018) who found the compliance risk control to have significant effects on the organisations performance. The second objective of this study was to establish the effect of credit risk mitigation on profitability of Deposit Taking SACCOs in Nyeri County. The study assessed the credit risk control using a number of statements which includes; the SACCO had a well outlined plan to regulate, controlling and dealing with delinquent cases in lending, the SACCO applies loan limits to various classes of borrowers, possession of a clear and comprehensive set of lending policies that guide lending decisions making, the implementation of a strict model of client appraisals prior to making the lending decision, maintaining of an effective collections plan that ensures funds are successfully recovered from borrowers.

The study also examined the relationship between credit risk control and the performance of Saccos in Nyeri County. The researcher also fitted the data into the regression model to assess the effect of credit risk control on the performance of the Saccos in Nyeri County.

Table 4: Percentage variations of performance explained by credit risk control

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.433[a]	.188	.052	.03316

a. *Predictors: (Constant), Credit*

Table 4 provides adjusted R Square which provides statistics on the amount of performance variations explained by credit risk control among the Saccos in Nyeri County. The study found that 5.2% of variations in performance of Saccos in Nyeri County are explained by credit risk controls. Table 5 provides statistics used to assess the significance of regression model in predicting performance of Saccos in Nyeri County using credit risk control.

Table 5: Significance of regression model on prediction of Sacco's performance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.002	1	.002	1.388	.283[b]
	Residual	.007	6	.001		
	Total	.008	7			

a. Dependent Variable: performance

b. Predictors: (Constant), Credit

The model significance to predict the performance of Saccos was evaluated at α=0.05. The study found the model was insignificant in predicting the performance of Saccos in Nyeri County.

Table 6 presents the contribution of credit risk control on the performance of Saccos in Nyeri County. The table presents the coefficients of regression model and their significance in prediction of performance of DT-Saccos in Nyeri County.

Table 6: Significance of credit risk control in predicting Sacco financial performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.135	.076		1.765	.128
	Credit	.022	.019	.433	1.178	.283

a. Dependent Variable: performance

The study found credit risk control coefficient (0.022) is a statistically insignificance in prediction of Sacco performance in Nyeri County using regression model at α=0.05. This finding implies that credit risk controls is insignificant predictor of performance, a finding that is consistent with the findings of Onang'o (2017). The study findings is also consistent with the findings of Sufi and Qaisar (2015) who observed a positive but insignificant association between credit risk management and the financial performance of an organisation.

The study also examined the relationship between liquidity risk control and the performance of Saccos in Nyeri County and presented the findings in table 7 below.

Table 7: Percentage variations of performance explained by liquidity risk control

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.815[a]	.665	.609	.02130

a. Predictors: (Constant), liquidity

Table 7 provides adjusted R Square which provides statistics on the amount of performance variations explained by liquidity risk control among the Saccos in Nyeri County. The study found that 60.9% of variations in performance of Saccos in Nyeri County are explained by liquidity risk controls. Table 8 provides statistics used to assess the significance of regression model in predicting performance of Saccos in Nyeri County using liquidity risk control.

Table 8: Significance of regression model on prediction of Sacco's performance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.005	1	.005	11.907	.014[b]
	Residual	.003	6	.000		
	Total	.008	7			

a. Dependent Variable: performance

b. Predictors: (Constant), liquidity

The model significance to predict the performance of Saccos was evaluated at α=0.05. The study found the model was significant in predicting the performance of Saccos in Nyeri County. Table 9 presents the contribution of liquidity risk control on the performance of Saccos in Nyeri County. The table presents the coefficients of regression model and their significance in prediction of performance of DT-Saccos in Nyeri County.

Table 9: significance of liquidity risk control in predicting Sacco financial performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.014	.061		.229	.826
	liquidity	.050	.014	.815	3.451	.014

a. *Dependent Variable: performance*

The study found liquidity risk control coefficient (0.050) is a statistically significant in prediction of Sacco performance in Nyeri County using regression model at α=0.05. This can be fitted in the regression model to give; Y=0.05 liquidity risk control(X_2) +0.014. This finding is consistent with Nyabatech (2013) finding who found the liquidity control to have a significant effect on the performance. However, Shukla and Muchem (2017) noted that when liquid asset increases compared to total assets, the performance of the organisation is comprised.

The last objective of this study was to establish the effect of compliance risk mitigation on profitability of Deposit Taking SACCOs in Nyeri County. The study assessed the operational risk control using a number of statements which includes; possession of strict implemented internal control system founded on need to enhance efficiency, promotion transparency and elimination of wastage; regular auditing practice in the deposit taking SACCO; maintaining a clear reporting lines for all employees which were strictly implemented; maintain clear lines and centres of responsibility to ensure accountability and all operations in the SACCO's departments were guided by working budgets that ensured objective spending.

Table 9: Percentage variations of performance explained by operational risk control

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850[a]	.723	.677	.01935

a. Predictors: (Constant), operational

Table 9 provides adjusted R Square which provides statistics on the amount of performance variations explained by operational risk control among the Saccos in Nyeri County. The study found that 67.7% of variations in performance of Saccos in Nyeri County are explained by operational risk controls.

Table 9: Significance of regression model on prediction of Sacco's performance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.006	1	.006	15.680	.007[b]
	Residual	.002	6	.000		
	Total	.008	7			

a. Dependent Variable: performance

b. Predictors: (Constant), operational

The model significance to predict the performance of Saccos was evaluated at α=0.05. The study found the model was significance in predicting the performance of Saccos in Nyeri County. Table 410 presents the contribution of operational risk control on the performance of Saccos in Nyeri County. The table presents the coefficients of regression model and their significance in prediction of performance of DT-Saccos in Nyeri County.

Table 10: significance of operational risk control in predicting Sacco financial performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.032	.065		-.493	.640
	operational	.059	.015	.850	3.960	.007

a. Dependent Variable: performance

The study found operational risk control coefficient (0.059) is a statistically significance in prediction of Sacco performance in Nyeri County using regression model at α=0.05. This can be fitted in the regression model to give; Y=0.09operational risk control(X_2) -0.032. This findings confirms the finding of Siminyu, Clive and Musiega (2016) which observed an association between performance and control of operation risk.

8. Conclusion of Study

From the finding of this study, we conclude that Compliance risk management influences the performance of DT-Saccos. The study also concludes credit risk control did not have significant influence the performance of Saccos in Nyeri County. Liquidity risk control has significant influence on the performance Saccos in Nyeri County. And finally the study concludes the study

concludes that the operational risk control practices has significance influence on the performance on the performance of DT Saccos in Nyeri County.

9. Recommendation of the Study

The study recommends DT Saccos to intensify the compliance risk control practices such setting internal policy guidelines and procedures; conducting of regular monitoring and control test to make adjustments on activities; application of best practices and upholding a set of self-regulatory standards on top of regulations provided by SASRA to enhance their financial performance. The study also recommends intensification of liquidity control practices such as commitment to detection of liquidity risk, formal contingency funding plan, clarity and elaborative guidelines, conduction of regular Severe Stress Tests and policies to that uncourageous public disclosure of liquidity conditions among DT-Saccos to improve the performance of their Saccos. Finally, the study recommends the DT Saccos to intensify operational risk control practices such as strict implementation of internal control system, auditing of regular practice, clear reporting lines for all employees, practising of clear lines and centres of responsibility and constitution of departments are guided by working budgets for continued financial performance of their Sacco.

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