

EFFECT OF DEPOSIT RISK ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SACCOS IN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

An economy is highly reliant on a stable financial system for it to thrive, with Savings and Credit Cooperatives forming a critical component under this system. The existence and subsequent operations of financial systems such as Savings and Credit Cooperatives ensures funds flow between the savers and borrowers, an aspect that promotes economic growth and development. The financial performance of deposit taking Savings and Credit Cooperatives in Kenya has been declining over the last 5 years as indicated by Return on Equity. This study aimed to establish the effect of liquidity risks on financial performance of Deposit Taking Savings and Credit Cooperatives in Nairobi City County, Kenya. This research was based on theory of liquidity preference. This research utilized a causal research design with the target population being all 45 Deposit Taking Savings and Credit Cooperatives in Nairobi City County, hence adopting a census

approach. Secondary data was obtained from the published financial reports and the Sacco Societies Regulatory Authority Annual reports for the five years from 2017 to 2021. There was the use of descriptive statistics. In addition, there was also the use of regression analysis in determining the effect of dependent variable on the independent variables. Findings to this study indicated that deposit risk had a negative and significant effect on performance of Savings and Credit Cooperatives. Given this case, the recommendation was that Savings and Credit Cooperatives' management should focus on putting measures in place that focus on increasing their deposit balances as a ratio of the total assets as this would significantly improve performance.

Key words: Financial performance, Deposit risk, Savings and Credit Cooperatives

INTRODUCTION

Savings and Credit Co-operative Societies (SACCOs) play a significant role in linking markets and this is evident as shown in a study by Mohammad, Asutay, Dixon, & Platonova (2020) which was conducted in the US. One way that can be used to determine whether these financial institutions are able to effectively meet their obligations is through the manner in which they manage their liquidity. A lack of proper management of liquidity was found to put a respective financial institution at risk, and thus making it unable to meet its long term and short-term financial obligations, to include a lack of satisfaction of the expectations of shareholders as measured by the Return on Equity (ROE). Liquidity as elucidated by Rudhani, & Balaj (2019) is regarded as one of the cardinal decision areas in financial management for any financial institution in both public or private sector in India. In this regard, it was indicated that liquidity is an important metric affecting performance and can thus not be over emphasized. A proper management of liquidity risk in an organization helps in effectively enhancing day-to-day operations in a manner that a firm can meet its obligations (Dirman, 2020). An effective and efficiently working entity, to include SACCOs, should ensure that they run in a manner that do not lead to a lack-of liquidity making them unable to meet their obligations (Panigrahi, 2019).

An analysis of the SACCOs within Africa, precisely in Nigeria, indicated that the entities within this country take an equity approach to credit risk management as revealed in a study by Oji, & Odi, (2021). This system has enabled these financial institutions to put the need of the shareholders as a priority while seconding this to the need to meet the clients' obligations. The equity approach, as adopted by the SACCOs within Nigeria is aimed at encouraging more shareholders to invest their resources in such entities, while encouraging the existing ones to plough back a significant back to the business. Consequently, this has led to improved financial performance given that the financial institutions in subject are able to comfortably meet their obligations.

The financial sector in Kenya comprises of banks, SACCOs among other lending facilities or entities. In this sector, SACCOs assume an important position as financial intermediaries between the savers and the investors. In so doing, such institutions have the responsibility of shouldering the liquidity risks in order to enhance the smooth flow of their operations. SACCOs assume an irreplaceable role towards social and economic development by offering ease of access to the financial services, encouraging savings, while at the same time, create employment opportunities (SASRA, 2019). However, such entities, for them to remain a going concern, should ensure that they attain a favorable balance between their profits and the equity given to its shareholders in the course of their role as intermediaries between the savers and the investors.

Mathuva and Kiweu (2016) noted that the existence of SACCOs' in Kenya is critical for financial deepening as well as economic development of Kenya's local economy due to their far-reaching networks in urban areas and rural areas. Sadgrove (2016) observes that deposit taking SACCOs in Kenya stimulate initiation and subsequent growth of business opportunities. They mobilize savings and provide loans to members at affordable rates. Given this case, deposit taking SACCOs have been recognized as an essential component of governments including the Kenyan government in facilitating the implementation of its economic strategy, especially on matters such as poverty eradication (Sadgrove, 2016).

SACCOs in Kenya are a critical component in the financial systems for the promotion of financial inclusion and fighting poverty. As one of the hybrid organizations, the deposit taking SACCOs promote credit access, housing, education, energy, agriculture, health, and education. Statistics by the Microfinance Barometer (2019) outline the average annual rate of growth of deposit taking SACCOs' loans for the last 5 years stands at 11.5%. In the year 2018, 139.9 million members were able to access the services of deposit taking SACCOs in borrowing. Of this total, 80% were women, with 65% coming from the rural areas (Microfinance Barometer, 2019).

The deposit taking business is very sensitive to liquidity risks as more than 85% of the liability is mobilized deposits from the members. According to Malik (2011), deposit mobilization is a critical aspect for any deposit taking Sacco to adequately manage its liquidity. This is because the deposits made by the members form the largest source of funds for the deposit taking Sacco and should cover the appetite for loans and other member's demand. In cases where the demand for funds exceeds the funds available, external borrowing becomes the only option for financing the gap. External borrowing comes at an expense in form of high interest charged effectively reducing the profitability levels (Malik, 2011). It is clear that liquidity risks pose a threat to financial performance of deposit

taking SACCOs by adversely affecting both their earnings and the capital. The SACCO industry in Kenya ranks among the largest in the African continent and has 5.7% of total assets to GDP ratio. Even though such entities play a crucial role to the economy, they are often faced with liquidity problems which hinders them from meeting the needs of the members while satisfying the expectations of the shareholders, at the same time. As a result, there has been a recorded failure rate of SACCOs, and this has affected more than half of the nation's population.

Deposit risk is the access limitation by a financial institution to obtain new debt to acquire cash assets at low reasonable cost (SASRA, 2015). According to Mwangi (2018) deposit risk refers to the ratio of total deposits held by a financial institution to the total assets it has. Deposit risk is used to assess a financial institution's reliance on customer deposits as a funding source for its activities. By analysing the deposit risk, analysts and regulators can gauge the liquidity and stability of a financial institution. The trend in deposit risk in Kenyan DT Sacco's between 2017 and 2021, the latest data from the Sacco Societies Regulatory Authority (SASRA) indicates that the average deposit risk for deposit-taking Sacco's in Kenya was 21.8% as of December 2020, higher than 10% the minimum requirement set by SASRA (SASRA, 2021). Came 2021, deposit risk in deposit taking Saccos in Kenya experienced a sharp decline to 8% suggesting that such entities have failed to maintain a stable and healthy level of capital adequacy.

Statement of the problem

Most deposit taking Saccos in Kenya portrayed a fluctuating financial performance between 2017 and 2021, as indicated in their ROE. The trend revealed that the ROE of the Kenyan DT SACCOs in the year 2017 stood at 8.34% after which it then increased to 9.40% in the year 2018. In the year 2019, the ROE experienced a decline to 9.11%, and then another decline to 8.26% in the year 2020. In the year 2021, the ROE then increased to 9.44% (SASRA, 2021). As a result, the unsteady financial performance of such entities as indicated by their respective ROE, most of the deposit taking Saccos are now becoming irrelevant in the market and risk closure at some point. Poor performance among the DT Saccos saw the cancelation of licenses of four DT Saccos in the year 2021 which were Comoco Sacco society limited, Uchongaji Sacco, Nanyuki Equator Sacco and Nyamira tea Sacco. The cancellation effectively barred the Saccos from further operations (SASRA, 2021).

As indicated in studies that were done previously, the study findings produced mixed results. Wanjiru, & Jagongo (2022), Ndum (2021), Gweyi (2018) studies took a holistic approach of liquidity risk, and not breaking it further to deposit risk which is a construct of liquidity risk. Given this case, there is really no consensus as to whether performance is positively or negatively affected by liquidity risk. Such a contradiction in the findings by the previous researchers leading to a lack of agreement is what necessitates conducting this study.

The study aimed to test the following null hypothesis:

H₀₁: Deposit risk does not significantly affect financial performance of deposit taking Sacco's in Kenya.

LITERATURE REVIEW

Theoretical review

This study was anchored on the liquidity preference theory. Keynes (1936) is the proponent of this theory who defined liquidity as the convenience in holding cash. This theory proposes that the demanded premium involved in parting with cash increases as the terms for getting the cash reduces. The theory gives the idea that the investors in a business often demand premiums for those securities that have longer maturities, and this involves greater risks.

According to the theorist of this theory, liquidity demand is influenced by three motives, with one of them being the transaction motive where people have preference for liquidity as a way of assuring them their basic transactions. In this regard, liquidity rates are often determined by the income levels where high incomes result in huge volumes of money demanded for spending. Apart from that, there is the precautionary motive, and this is one where people have preference for liquidity to meet any unforeseen events. In this case, the amount of money that is demanded increases as the level of income increases. Besides that, there is the speculative move, and this is one where people retrain liquidity with speculation that bond prices will fall. The liquidity preference theory can be linked to the deposit risk variable as it emphasizes on the need to have sufficient levels of capital as the most desired position of a SACCO for it to be said to have healthy financials.

Empirical literature

Suroso (2022) investigated impact of deposit ratio on financial performance in the context of digital transformation in banking. Their research, focusing on a sample of 50 banks undergoing digital transformation, revealed that higher deposit ratios were associated with improved financial performance, particularly in terms of cost efficiency and customer satisfaction. Suroso (2022) focuses on banks while measuring performance based on cost efficiency and customer satisfaction. The current study focuses on Sacco's, thus bringing in a new perspective and filling a gap in literature while at the same time takes a narrow focus by measuring performance based on ROE. Sidhu et al. (2022) highlighted the link between deposit ratio, financial performance, along with regulatory frameworks in banking sector. Their study, considering data from 200 banks in different countries, highlighted the importance of regulatory factors in shaping the relationship. They found that in countries with stricter regulatory requirements, a higher deposit ratio positively influenced financial performance, as it enhanced stability and reduced risk. Sidhu et al. (2022) focuses on banks. The current study focuses on Sacco's, thus bringing in a new perspective and filling a gap in literature.

Okparaka et al. (2022) investigated impact of deposit risk on performance in the context of regulatory frameworks in the insurance industry. Their research, focusing on a sample of 75 insurance companies, depicted a negative link between deposit risk and performance precisely in heavily regulated environments. The stringent regulatory requirements associated with higher deposit ratios imposed additional costs and constrained profitability for insurance firms. Okpraka

et al. (2022) focuses on insurance firms. This study focuses on Sacco's, thus bringing in a new perspective and filling a gap in literature

Sukmadewi (2020) investigated deposit ratio's impact on banking industry's financial performance. Their study, based on a sample of 100 banks, found negative correlation between the variable of deposit ratio along with that of performance. Banks with lower deposit ratios exhibited weaker ROE as well as ROA. Sukmadewi (2020) only focused on a single element of liquidity risk, which is deposit ratio while measuring performance based on ROE as well as ROA. The current study focuses on deposit risk thus taking a more comprehensive manner while narrowing its focus on ROE as the measure of performance, hence sharpening its focus.

Sitompul, & Nasution (2019) did research on relationship between deposit ratio along with financial performance in emerging markets. Their research, analysing data from 50 banks across multiple emerging economies, revealed that higher deposit ratios were associated with improved financial performance indicators. They also found that banks with higher deposit ratios experienced lower credit risk and higher liquidity, contributing to their overall financial health. Sitompul, & Nasution (2019) focuses on banks while measuring performance based on unknown indicators. The current study focuses on Sacco's, thus bringing in a new perspective and filling a gap in literature while measuring performance based on a specific measure, ROE.

Conceptual framework

This gives the relationship that exists between the study's independent variables along with the study's dependent variables through pictorial illustration of organized concepts.

Independent variable

Dependent variable



Figure 1: Conceptual framework

RESEARCH METHODOLOGY

The study employed a causal research design, an approach that assisted in the analysis of the liquidity risk along with DT Sacco's' financial performance. This research had 45 DT Sacco's located within Nairobi City County as its target population, for the period 2017 to 2021 (SASRA, 2021). There were 45 DT Sacco's located within Nairobi City County as at 31st December 2021, all of which were considered for this study. This research used census approach by focusing on all the 45 DT Sacco's located within Nairobi City County, Kenya. This study utilized secondary panel data. Raw data was derived from Sacco's' financial statement along with SASRA reports. The researcher sought approval from Kenyatta University graduate school and a permit from NACOSTI. The obtaining of these permits was succeeded by data collection.

The gathered data was cleaned and sorted as per each study objective to make it easy for analysis. The researcher in this study used the descriptive along with panel regression. Descriptive analysis includes mean, frequency along with standard deviation. Results relating to the analysed data were then presented in figures, tables along with charts.

Linear regression model was utilized when it came to the analysis of the collected data. The utilized model is outlined as shown below.

$$ROE = \beta_0 + \beta_1 X_{lit} + \varepsilon_{it}$$

Where: ROE - Return on Equity; β_0 – constant; $\beta_1 X_{lit}$ – Deposit risk; ε_{it} – Error term

Diagnostic tests were carried out in order to confirm that the basic assumptions are attained before running regression analysis, in order to assess whether the study data variables were suitable for making inferences.

The researcher acknowledged all authors of research works that were utilized during the study so as to comply with the study ethical guidelines. Confidentiality and plagiarism are ethical issues that were also considered. Plagiarism was avoided by citing the authors name and the year. References were also included.

RESULTS AND DISCUSSION

This research had 45 DT Sacco's located within Nairobi City County as its target population, for the period 2017 to 2021. There were 45 DT Sacco's located within Nairobi City County as at 31st December 2021, all of which were considered for this study (SASRA, 2021). This section captures an analysis of data through various statistical techniques and tests. These include descriptive analysis, multicollinearity testing, fixed and random effect testing, regression analysis.

Descriptive statistics

Table 1 outlines total number of observations as 225, and this cuts across all the research variables. The mean for performance is 0.196 while the standard deviation is 0.578 with the implication of this being that the data on performance is stable. The minimum value along with the maximum values for performance are 0.0067 and 7.98 respectively indicating a great variation in performance. Deposit risk, on the other hand, has 0.179 as its means, and 0.016 as its standard deviation, with a maximum of 0.245 and a minimum of 0.096.

Table 1: Descriptive statistics

Variable	Obs	Mean	Median	Std dev	Min	Max
Performance	225	0.196	0.113	0.578	0.0067	7.98
Deposit risk	225	0.179	0.92	0.016	0.096	0.245

Diagnostic test

In order to confirm that the basic assumptions are attained before running regression analysis, the research conducted multicollinearity test, and test for fixed effect of random effect.

Multicollinearity Test

Multicollinearity happens when various or respective independent variables have correlation. To evaluate the extent of multicollinearity in the study, there was the use of correlation matrix. Findings for multicollinearity test are shown as follows in Table 4.2. The correlation between deposit risk and performance had a Correlation Coefficient (r) -0.018 and 0.348 as the p-value hence significant. Greene (2008) indicated 0.8 or -0.8 as correlation coefficient between a pair of variables signals high levels of correlation, and a Coefficient of Determination (r²) of 64% or more also suggests a strong level of multicollinearity between variables. Thus, it can be inferred that when two variables have 0.8 or -0.8 as correlation coefficient, or when the Coefficient of Determination is at least 64%, there is multicollinearity between the variables, indicating that they are strongly correlated. For this study, deposit risk, had -0.018, as its coefficient of correlation (r). Since the coefficient is not more than 0.8 or -0.8, it was concluded; no problem in regards to multicollinearity.

Table 2: Correlation matrix

		Deposit risk	Performance
Deposit risk	p-value	—	
Performance	Pearson's r	-0.018	—
	p-value	0.348	—

Test for Fixed Effect or Random Effect

The study conducted a Hausman test to determine if fixed effect model or the random effect model should be deemed appropriate or preferred. Null hypothesis suggested random effect model as the most preferred, with alternative hypothesis favouring the model of fixed effect. In case p-value is not over 0.05, the implication of this is that null hypothesis would be rejected, indicating that the fixed effect model was preferred model. If p-value was at least 0.05, there would be rejection of null hypothesis, with the preferred model in this regard being the random effect.

Table 3: Hausman Test

	Coefficients (b)	Coefficients (B)	Difference (b-B)	Sqrt (diag(V_b-V_B))
Deposit risk	-0.0369100	-0.0413283	0.0443211	0.1249861

Inferential analysis

The panel regression analysis indicates that the deposit risk along with performance of DT Sacco’s, the output of regression analysis indicated a negative as well as significant effect with $\beta = -0.4239$ at $p=0.029$. A unit increment in deposit risk reduces performance by 0.4239. The results showed R squared value as 0.00135, indicating the predictor variables explains performance variation by 0.0135%. The constant (β_0) is 0.2125, implying that without the predictor variables, the value of performance is 0.2125. The p-value of 0.048 as derived from the regression model indicates significance.

The estimated model based on the results is as follows:

$$ROE_{it} = 0.2125 - 4239X_{1it} + \epsilon_{it}$$

Where; ROE - Return on Equity; X_1 - Deposit risk; ϵ_{it} - Error term

Table 4: coefficient of determination

Model	R	R ²	F	df1	df2	P
1	0.0276	0.00135	0.084	3	221	0.458
Model Coefficients – Performance						
Predictor	Estimate	SE	T	P		
Intercept	0.2125	0.1222	1.664	0.048		
Deposit risk	-0.4239	0.15426	-2.368	0.029		

Conclusion and policy recommendations

Deposit risk and DT SACCOs’ performance, the current research found a negative as well as a non-significant effect between deposit risk and DT SACCOs’ performance. The finding that there is a negative effect suggests that deposit risk can potentially have adverse effects on DT SACCOs’ performance. The fact that this effect is significant implies the relationship that exists between deposit risk along with performance is strong enough and this highlights the importance of maintaining adequate levels of DT SACCOs’ capital.

The negative as well as significant effect of deposit risk on DT Sacco’s’ performance implies that there is a need for Deposit Taking Sacco’s to focus on improving their deposit risk in order to enhance their performance. This can be achieved by increasing their capital base, managing their risk effectively, and exploring opportunities to generate more revenue. By doing so, Deposit Taking Sacco’s can improve their overall financial health and ensure their long-term sustainability.

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