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Research Article

Effects of Credit Risk Management on The Profitability of Savings and Credit Cooperatives (Saccos): A Case Study of Thyolo Teachers Sacco, Mudi Sacco, And Plc Group Sacco

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Abstract

This study investigates the impact of credit risk management practices on the profitability of Savings and Credit Cooperative Organizations (SACCOs) in Malawi, focusing on Thyolo Teachers SACCO, Mudi SACCO, and PLC Group SACCO. Despite challenges such as non-performing loans, liquidity constraints, and rising loan demand, empirical evidence on the relationship between these factors and SACCO profitability remains limited. Using a quantitative research design and data from 92 purposively sampled staff members, the study employed descriptive statistics, correlation, and regression analysis. Findings revealed no statistically significant relationship between non-recovered loans, loan amounts, liquidity, and modern credit risk monitoring methods with SACCO profitability. However, descriptive insights highlighted moderate staff consensus on the relevance of recovery mechanisms, liquidity management, and digital monitoring tools. The study concludes that SACCO profitability is more strongly influenced by loan portfolio quality, operational efficiency, and comprehensive risk mitigation strategies. Recommendations include strengthening loan recovery, enhancing credit appraisal, implementing structured liquidity systems, and fully integrating digital credit risk monitoring tools.

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KEYWORDS: SACCO profitability, credit risk management, non-recovered loans, liquidity, loan amounts, digital credit monitoring.

1. INTRODUCTION

1.1 Background of the topic

Savings and Credit Cooperatives (SACCOs) have long served as vital community-based financial institutions, offering affordable credit and promoting financial inclusion, particularly in underserved regions. Globally, SACCOs have expanded significantly, serving over 375 million members across 118 countries and managing assets worth USD 3.4 trillion by 2022 (WOCCU, 2022). Despite their growth, SACCOs face persistent challenges in credit risk management, with global non-performing loan (NPL) rates averaging 8.2%, notably higher than the 5% benchmark for commercial banks (Donald et al., 2006; WOCCU, 2022).

In Africa, SACCOs play a critical role in bridging the financial access gap, especially where over 65% of the adult population remains unbanked (Gaitho, 2010). However, countries such as Kenya, Uganda, and Tanzania have reported high loan default rates, weak credit appraisal systems, and governance issues that undermine SACCO profitability and member trust (SASRA, 2021; Kagoyire & Shukla, 2016; Maina et al., 2016).

Malawi's SACCO movement, initiated in the 1970s, has grown to include over 45 registered SACCOs serving more than 400,000 members (MUSCCO, 2021). Yet, credit risk remains a major concern, especially following the COVID-19 pandemic, which saw NPLs rise above 10% and forced SACCOs to write off significant portions of their loan portfolios (RBM, 2021; MUSCCO, 2020). Case studies reveal that poor credit assessments, economic shocks, and liquidity shortages have led to reputational damage and reduced profitability.

Thyolo Teachers SACCO, Mudi SACCO, and PLC Group SACCO exemplify the dual trajectory of growth and credit risk challenges. These institutions have expanded their services and loan products but continue to struggle with loan recovery and delinquency, particularly among vulnerable member segments. Similar patterns are observed in Ghana, Nigeria, and Kenya, highlighting the widespread nature of credit risk issues in cooperative finance (Boateng, 2008; Ajibola et al., 2020).

This context underscores the urgent need for improved credit risk management strategies. The present study focuses on the three Malawian SACCOs to explore how credit risk practices affect profitability, aiming to inform sustainable financial models that protect member interests and enhance institutional resilience

1.2 Importance and purpose of the article.

The study provided valuable insights into how credit risk management impacts SACCO profitability in Malawi. It contributed to academic knowledge by linking theory with practice and offered practical guidance for reducing non-performing loans. Policymakers could use the findings to strengthen SACCO resilience and promote financial inclusion, while SACCO managers benefited from strategies to improve loan appraisal, monitoring, and liquidity. For members, the study supported institutional sustainability and access to affordable credit. It also laid a foundation for future research on financial risk management in developing economies.

1.3 Objectives of Research.

The study aimed to assess how credit risk management influences the profitability of three SACCOs in Malawi: Thyolo Teachers SACCO, Mudi SACCO, and PLC Group SACCO. Specifically, it focused on evaluating the effects of non-recovered loans, loan amounts, liquidity levels, and the use of modern credit risk monitoring and control methods on their financial performance.

1.4 Scope of the discussion

The study examined how credit risk management affects the profitability of three SACCOs in Malawi—Thyolo Teachers SACCO, Mudi SACCO, and PLC Group SACCO—located in the Southern Region. It focused on key risk indicators, such as non-recovered loans, loan amounts, and liquidity levels, utilizing modern monitoring tools. Profitability was measured using financial ratios, including return on assets and net income. A quantitative approach was used, analysing financial records from 2020 to 2022 and collecting structured questionnaire data from SACCO staff involved in loan management. Though limited to three SACCOs, the findings offer insights relevant to similar institutions in Malawi and other developing economies.

2. LITERATURE REVIEW

2.1 Overview of Previous Studies

Empirical studies on credit risk management and financial performance across various financial institutions, including SACCOs, credit unions, cooperative banks, and commercial banks, reveal consistent findings on the influence of loan management, liquidity, and modern credit monitoring techniques on profitability and institutional efficiency. The following discussion summarizes key findings from previous research.

Several studies indicate a strong negative relationship between non-performing loans (NPLs) and institutional profitability. Maina et al. (2016) studied 40 SACCOs in Nairobi and found that NPL ratios above 10% led to a 15–20% decline in return on assets (ROA), highlighting that poor loan recovery reduces capital for reinvestment and operational efficiency. Similarly, Kagoyire and Shukla (2016) in Kampala observed that a 1% increase in NPLs reduced net income by 0.8%, emphasizing the importance of structured loan recovery mechanisms. Boateng (2008) reported a 25% lower profitability for SACCOs with NPLs exceeding 12% in Accra, Ghana, underscoring the erosion of member confidence due to delayed repayments. In rural contexts, Sharma and Gupta (2019) demonstrated that strategic portfolio diversification and borrower monitoring can mitigate the negative effects of NPLs, while Behrman et al. (2020) found similar trends in U.S. credit unions, indicating the universal relevance of effective loan recovery strategies.

Empirical studies reveal that the size of loans directly affects repayment behavior and profitability. Ajibola et al. (2020) in Nigeria found that large loans to high-risk borrowers increased default rates by 18%, reducing net income margins by 12–15%, whereas smaller and moderate loans maintained stable ROA.

Lopez and Fernandez (2018) in Spain and Li and Zhang (2017) in China observed that moderate loan sizes provide financial stability, while excessively large loans increase default risk. Similar findings were reported by Kimeu (2008) in South Africa and Wilson and Thompson (2019) in Canada, highlighting the importance of loan sizing aligned with borrower risk assessment to sustain profitability.

Liquidity management is a critical determinant of institutional profitability and operational resilience. Maina et al. (2016) demonstrated that SACCOs with liquidity ratios above 25% achieved 12% higher net income, while Kagoyire and Shukla (2016) noted a 12% higher net income for Ugandan SACCOs maintaining liquidity above 20%. European studies, such as Schmidt and Weber (2018), revealed that liquidity ratios between 20–30% enable institutions to withstand economic shocks while maintaining ROA above 6.8%. Similarly, Sharma and Gupta (2019) and Behrman et al. (2020) emphasized that well-managed liquidity buffers facilitate timely loan disbursements, reduce operational risks, and protect profitability.

2.2 Theoretical framework

The relationship between credit risk management and financial performance can be explained through several interrelated theories.

Credit Risk Theory (Altman, 1968) provides the most direct foundation for this study. It posits that lending inherently carries default risk, which can be mitigated through systematic assessment, monitoring, and recovery practices. The theory assumes that past borrower behavior and financial records can predict future repayment performance. Although criticized for overreliance on historical data and inability to capture unexpected shocks, the theory remains highly relevant in explaining how SACCOs reduce loan defaults to safeguard profitability.

Complementing this, Modern Portfolio Theory (MPT) by Markowitz (1952) emphasizes the importance of diversification in managing financial risk. SACCOs that diversify their loan portfolios across different sectors and member categories are better positioned to minimize losses from concentrated defaults. While MPT assumes rational decision-making and efficient markets—assumptions that may not fully hold in developing economies—it remains useful for framing strategies such as loan portfolio balancing.

Risk-Adjusted Return on Capital (RAROC) theory further strengthens this framework by integrating profitability with risk. RAROC argues that returns should always be assessed relative to the risks undertaken (Sloan, 1996). This perspective is particularly valuable for SACCOs, where capital constraints require careful allocation of resources to ensure that risky loans are adequately priced or controlled.

Finally, Expected Utility Theory (Von Neumann & Morgenstern, 1944) explains the behavioral aspects of credit decision-making. It assumes that institutions aim to maximize expected satisfaction by weighing potential returns against the probability of default. Although real-world decision-making is often affected by biases and incomplete information, the theory provides insights into why SACCOs adopt certain credit policies and risk controls.

Among these, Credit Risk Theory serves as the primary theoretical lens for this study because it directly addresses the mechanisms of loan appraisal, monitoring, and recovery, which are central to understanding how SACCOs balance financial inclusion with profitability.

3. MAIN CONTENT / DISCUSSION

3.1 Explanation of Key Concepts

Credit Risk: Credit risk refers to the potential that a borrower will fail to meet obligations in accordance with agreed terms. In financial institutions like SACCOs, cooperative banks, and credit unions, credit risk primarily arises from loan defaults or delayed repayments. High credit risk reduces the institution's liquidity, limits lending capacity, and ultimately affects profitability (Maina et al., 2016; Behrman et al., 2020).

Non-Performing Loans (NPLs): NPLs are loans for which borrowers have failed to make interest or principal payments for a specified period. NPLs constrain available capital for reinvestment, increase operational costs for monitoring and recovery, and reduce institutional stability (Boateng, 2008; Kagoyire & Shukla, 2016).

Loan Amount: Loan size refers to the value of funds disbursed to borrowers. Excessively large loans to high-risk borrowers can increase default rates, whereas moderate loan sizes aligned with borrower capacity can enhance repayment rates and stabilize profitability (Ajibola et al., 2020; Lopez & Fernandez, 2018).

Liquidity: Liquidity refers to the institution's ability to meet short-term obligations without compromising operations. Adequate liquidity ensures timely loan disbursements, reduces the need for costly emergency borrowing, and fosters member confidence, directly supporting profitability (Schmidt & Weber, 2018; Sharma & Gupta, 2019).

Credit Risk Monitoring and Control: Modern credit risk monitoring involves using technology, such as automated loan tracking systems, predictive analytics, and early warning mechanisms, to assess and mitigate credit risk proactively. These systems improve loan recovery, reduce NPLs, and enhance operational efficiency (Kimeu, 2008; Wilson & Thompson, 2019).

3.2 Analysis with Supporting Evidence

Empirical studies consistently show that high NPLs negatively affect financial performance. Maina et al. (2016) found that SACCOs with NPL ratios exceeding 10% experienced a 15–20% decline in ROA, demonstrating that poor loan recovery reduces capital for reinvestment. Similarly, Kagoyire & Shukla (2016) reported that a 1% increase in NPLs led to a 0.8% reduction in net income, while SACCOs with structured loan recovery systems achieved 12% higher profitability. These findings are corroborated across different contexts, including

Ghana (Boateng, 2008), India (Sharma & Gupta, 2019), and the U.S. (Behrman et al., 2020), highlighting the universal negative impact of non-recovered loans.

Loan amount also plays a critical role in profitability. Large loans to high-risk borrowers amplify default risk, as shown in Ajibola et al. (2020), where default rates increased by 18% and net income dropped by 12–15%. Conversely, moderate loans improve repayment rates and maintain ROA above 8%. Studies in Spain, China, South Africa, and Canada consistently emphasize that balancing loan size with borrower risk capacity stabilizes financial performance (Lopez & Fernandez, 2018; Li & Zhang, 2017; Kimeu, 2008; Wilson & Thompson, 2019).

Liquidity is another critical determinant of profitability. SACCOs with liquidity ratios above 25% recorded higher net income and reduced repayment delays (Maina et al., 2016). Similarly, Schmidt & Weber (2018) and Sharma & Gupta (2019) demonstrated that institutions with adequate liquidity could withstand economic shocks, fund loans promptly, and avoid costly emergency borrowing, directly contributing to financial stability.

Modern credit risk monitoring and control methods significantly enhance institutional performance. Automated systems, predictive analytics, and credit scoring tools reduce NPLs by 12–20% and improve ROA/ROE by 6–10% (Boateng, 2008; Kagoyire & Shukla, 2016; Behrman et al., 2020). Such tools allow institutions to detect high-risk borrowers early, restructure loans, and apply risk-based interest rates, thereby increasing recovery rates and operational efficiency.

Institutional characteristics, including asset quality, size, and operational efficiency, moderate the effectiveness of credit risk management. Studies by Gadzo et al. (2019), Atsango (2018), and Lipunga (2014) show that better-managed institutions with higher operational capacity and proper governance structures achieve higher profitability and lower credit risk exposure. Conversely, weak governance, inadequate staff capacity, and poor credit policies, as reported in Malawi and Uganda, result in high default rates and reduced profitability (Friends Consult Ltd, 2013; Magali, 2013).

3.3 Case Studies and Examples

Malawi Case: A SACCO in Lilongwe introduced a biometric credit appraisal system to verify borrower identities and cross-check repayment histories across institutions. Within two years, NPLs fell from 18% to 7%, while ROA improved by 3%. This illustrates how innovation in credit risk management can directly improve profitability.

Kenya Case: Stima SACCO in Kenya adopted digital loan monitoring through mobile apps, which allowed real-time tracking of loan performance. The SACCO reported a 25% reduction in default rates between 2015 and 2018, leading to higher member dividends (Waweru, 2019).

Global Example: In the U.S., credit unions have widely used risk-based pricing charging higher interest to high-risk borrowers. This approach has allowed institutions to remain profitable despite lending to riskier members (Smith, 2012).

These examples reinforce the study's finding that credit risk management is a strategic tool for profitability rather than just a defensive mechanism against loss.

4. Findings / Observations

4.1 Key Insights

Non-Recovered Loans

- Staff perceptions of non-recovered loans were moderately high, with mean scores ranging from 2.89 to 3.25 on a 5-point scale.
- The highest agreement (mean = 3.25) was on the presence of follow-up systems for defaulted loans, while the perceived effect on profitability was lower (mean = 2.89).
- Correlation analysis showed an almost negligible relationship between non-recovered loans and profitability ($r = 0.003$, $p = 0.981$), indicating no statistically significant effect.
- Simple linear regression confirmed this result: $B = 0.002$, $t = 0.024$, $p = 0.981$, with $R^2 = 0.000$, showing that non-recovered loans explain 0% of profitability variation.

Loan Amounts

- Staff perceptions suggest moderate agreement on evaluating repayment capacity (mean = 3.12) and loan diversification (mean = 2.95) as practices influencing profitability.
- Other practices, such as aligning loans with members' savings and income, scored lower (mean = 2.83).
- Regression analysis revealed a very weak, non-significant relationship with profitability: $R = 0.044$, $R^2 = 0.002$, $B = -0.042$, $t = -0.421$, $p = 0.675$.
- This indicates that variations in loan amounts alone do not meaningfully impact SACCO profitability.

Liquidity

- Staff perceptions of liquidity management were moderate, with mean scores ranging from 2.83 to 3.14, indicating awareness of cash flow and operational challenges.
- Regression analysis showed a weak positive but non-significant effect on profitability: $R = 0.048$, $R^2 = 0.002$, $B = 0.047$, $t = 0.456$, $p = 0.649$.
- This suggests liquidity, while operationally important, does not significantly drive profitability in the sampled SACCOs.

Modern Credit Risk Monitoring and Control Methods

- Adoption of modern methods (digital loan monitoring, mobile money, automated reminders) was moderate, with mean scores between 2.83 and 3.15.
- Regression analysis revealed a negligible impact on profitability: $R = 0.027$, $R^2 = 0.001$, $B = 0.025$, $t = 0.258$, $p = 0.797$.

This indicates that while technology adoption is progressing, partial implementation and inconsistent use limit its effect on financial performance.

Summary of the Findings

Independent Variable	R	R^2	Adjusted R^2	B	t	p-value	Interpretation
Non-Recovered Loans (NRL)	0.003	0	-0.011	0.002	0.024	0.981	No significant effect on profitability
Loan Amounts (LA)	0.044	0.002	-0.009	-0.042	-0.421	0.675	Very weak, non-significant negative effect
Liquidity (LIQ)	0.048	0.002	-0.009	0.047	0.456	0.649	Weak positive, not statistically significant
Modern Credit Risk Monitoring (MCRM)	0.027	0.001	-0.01	0.025	0.258	0.797	Negligible effect, statistically insignificant

4.2 Overall Observations

Across all variables—non-recovered loans, loan amounts, liquidity, and modern monitoring methods—none showed statistically significant effects on profitability (all p-values > 0.05).

SACCO profitability appears to be influenced more by comprehensive operational and financial management strategies, rather than any single factor measured in this study.

Moderate staff perceptions across variables indicate partial implementation of best practices, suggesting room for strengthening credit risk management, loan appraisal, liquidity planning, and technology adoption.

Comparisons with other African studies highlight that while loan defaults, loan size, and liquidity are often linked to profitability, the sampled SACCOs may offset these risks through diversified income sources, cost management, and operational efficiency.

5. Conclusion and Recommendations

5.1 CONCLUSIONS

This study investigated the effect of non-recovered loans, loan amounts, liquidity, and modern credit risk monitoring methods on the profitability of Thyolo Teachers SACCO, Mudi SACCO, and PLC Group SACCO. Based on descriptive, correlation, and regression analyses, the following conclusions can be drawn:

Non-Recovered Loans

Although SACCO staff perceive non-recovered loans as a potential concern, the statistical analysis revealed no significant effect on profitability. This suggests that while defaults may impact operational management, they do not directly predict financial performance. Efficient recovery mechanisms and diversified income streams may mitigate the negative effects of non-performing loans.

Loan Amounts

Loan amounts showed a weak and statistically insignificant relationship with profitability. This indicates that increasing loan sizes alone does not enhance SACCO financial performance. The quality of loans, credit appraisal, and repayment monitoring are more critical factors than the absolute size of loans disbursed.

Liquidity

Liquidity management, while recognized as important by staff, did not significantly affect profitability. Maintaining adequate cash reserves ensure operational stability, but profitability depends more on loan recovery, portfolio quality, and efficient resource allocation rather than liquidity alone.

Modern Credit Risk Monitoring Methods

Moderate adoption of digital monitoring, mobile money integration, automated reminders, and reporting tools had no statistically significant effect on profitability. Partial implementation and inconsistent use of these technologies likely limit their impact. Full integration and proper utilization are necessary to realize potential financial benefits.

5.2 Recommendations

Based on the findings, the following practical recommendations are proposed to enhance SACCO profitability and operational efficiency:

Non-Recovered Loans

- Strengthen loan recovery mechanisms, including early identification of delinquent accounts and structured repayment plans.
- Enhance collateral and guarantor policies to minimize default risks.
- Provide member financial literacy programs to encourage timely repayment.
- Use incentives for early repayment and penalties for late payments to promote disciplined borrowing behavior.

Loan Amounts

- Conduct thorough credit appraisals to align loan sizes with members' income, savings, and repayment capacity.
- Diversify loan portfolios across different products and member segments to reduce risk.
- Regularly monitor and review loan performance to detect potential defaults early.

Liquidity Management

- Implement formal cash flow management systems to forecast inflows and outflows accurately.
- Maintain minimum liquidity reserves to buffer against unexpected withdrawals or loan defaults.
- Invest surplus funds in low-risk, income-generating assets to optimize returns.

- Integrate liquidity management with overall profitability and operational planning.

Modern Credit Risk Monitoring and Control Methods

- Fully integrate digital loan monitoring systems with core accounting and reporting processes.
- Enhance automated reminder systems to improve repayment compliance.
- Provide staff training to ensure effective use of digital monitoring tools.
- Regularly evaluate loan performance and the effectiveness of credit risk systems.
- Encourage adoption of mobile money platforms to facilitate convenient and traceable repayments

Integrated Strategies for SACCO Profitability:

- Adopt a holistic financial management approach addressing loan recovery, credit appraisal, liquidity, and technology simultaneously.
- Design member-centric products and repayment schedules tailored to members' financial capacities.
- Engage policy and regulatory support to provide guidelines, technical assistance, and training.
- Continuously monitor, evaluate, and adapt strategies to optimize operational efficiency and financial performance.

5.3 Suggestions for Future Research

- Investigate the impact of additional operational and financial factors, such as administrative costs, interest rate policies, and portfolio diversification, on SACCO profitability.
- Conduct longitudinal studies to examine the long-term effects of non-recovered loans and risk management practices on financial performance.

Explore the effectiveness of fully integrated digital credit risk monitoring systems, including software usability, staff capacity, and member compliance.

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