

# Cash-flow Management and the Financial Performance of Deposit-Taking Savings and Credit Co-operative Societies in Kenya

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*Abstract- Deposit-taking savings and credit co-operative societies (DT-SACCOs) are central to financial inclusion in Kenya, yet the sub-sector continues to record uneven financial performance amid tightening prudential supervision and recurrent liquidity stress. This study examined the effect of cash-flow management on the financial performance of DT-SACCOs in Kenya. The study was anchored on the Liquidity Preference Theory, the Baumol Model of Cash Management and the Transaction Cost Theory, and it adopted a pragmatism philosophy and a convergent mixed-methods design. The target population comprised the 176 licensed DT-SACCOs in Kenya, and a census of the 352 chief executive officers and chief finance officers of these societies was undertaken, complemented by in-depth interviews with twelve senior officers. A total of 259 usable questionnaires were returned, a response rate of 73.6 per cent. Quantitative data were analysed using descriptive statistics, Pearson correlation and simple linear regression, while qualitative data were analysed thematically. The findings showed that cash-flow management had a positive and statistically significant effect on financial performance ( $r = 0.512$ ;  $\beta = 0.512$ ;  $R^2 = 0.262$ ;  $F(1, 257) = 91.31$ ;  $p < .001$ ), explaining 26.2 per cent of the variation in financial performance. The interview evidence revealed three themes, namely liquidity discipline, member confidence and the liquidity-lending trade-off, which together showed that senior officers manage liquidity as a balancing exercise rather than a maximisation problem. The study concludes that disciplined cash-flow management is a significant driver of DT-SACCO financial performance, operating within a bounded range beyond which excess liquidity imposes an opportunity cost. It recommends that DT-SACCOs codify their liquidity routines and frame liquidity policy as a managed corridor with documented upper and lower bounds.*

**Keywords:** *Cash-Flow Management, Financial Performance, Deposit-Taking Saccos, Liquidity, Kenya*

## I. INTRODUCTION

Savings and credit co-operative societies occupy a central place in the financial systems of many developing economies, mobilising member savings and extending affordable credit to populations that are frequently underserved by commercial banks. Globally, credit unions and co-operative financial institutions have continued to expand their membership and asset base, but they have also faced mounting liquidity pressures, with the World Council of Credit Unions reporting that a substantial number of societies experienced funding stress and service disruption in recent years (WOCCU, 2023). The International Co-operative Alliance (2022) similarly reported that thousands of co-operative societies confronted financial pressure attributable to weak liquidity planning, underscoring the global salience of cash-flow management for the stability of member-owned lenders.

Within Africa, savings and credit co-operatives have become an increasingly important channel for financial inclusion, and Kenya hosts one of the largest and most developed co-operative movements on the continent. The deposit-taking segment of this movement holds a significant share of national savings and serves millions of members, positioning the country as a regional leader in cooperative finance (ICA, 2022). This prominence has been accompanied by the strengthening of the regulatory architecture, with the Sacco Societies Regulatory Authority (SASRA) progressively tightening the prudential requirements on capital adequacy, liquidity and asset quality in order to safeguard member deposits and to maintain confidence in the sub-sector (SASRA, 2023).

Deposit-taking savings and credit co-operative societies (DT-SACCOs) occupy a distinct position within this sub-sector because they accept withdrawable deposits and are licensed and supervised by SASRA, which mandates that they maintain a minimum liquidity ratio of fifteen per cent of total deposit liabilities. The deposit-taking model places liquidity at the centre of the institution's operations, since a DT-SACCO must be able to settle member withdrawals on demand while continuing to fund the lending activities that generate the bulk of its income (Musyoka & Karuiru, 2024). Cash-flow management, understood as the planning, monitoring and control of cash inflows and outflows so that obligations can be met as they fall due, is therefore not a peripheral accounting function but a determinant of member confidence and institutional stability.

Despite the importance of the sub-sector, DT-SACCOs in Kenya continue to record uneven financial performance. A number of societies have struggled with liquidity stress and deteriorating asset quality, and some have operated below the prudential thresholds set by the regulator (SASRA, 2023). Recent evidence indicates that rural and smaller societies in particular face irregular cash inflows, high delinquency and limited deposit-mobilisation capacity, which expose them to liquidity shortfalls and weaken their financial resilience (Lekaaso, Mbuba, & Cheron, 2025). The decline in the sub-sector's average return on assets in recent years has heightened attention to the internal management practices that distinguish strong from weak performers (Gatu, Njehia, & Kimutai, 2023).

The scale of the problem is not trivial. International evidence indicates that a meaningful share of co-operative financial institutions face distress that is traceable to weak liquidity control, with some societies failing to meet short-term obligations and a proportion ultimately closing (WOCCU, 2023). Within Kenya, the persistence of societies operating below prudential liquidity thresholds, alongside the documented decline in sector profitability, signals that the quality of cash-flow management is uneven across the sub-sector and that the consequences of weak management fall hardest on the smaller and

rural societies that serve the most financially excluded members. This combination of a systemically important sub-sector, a tightening regulatory environment and demonstrable variation in liquidity management establishes both the practical urgency and the scholarly interest of examining how cash-flow management affects financial performance. Among these practices, cash-flow management is the most immediate, because it governs the institution's capacity to meet its short-term obligations without sacrificing the returns available from lending and investment. Holding too little liquidity exposes a society to the risk of failing to meet withdrawals, with immediate reputational consequences, while holding too much ties up funds that could have been lent or invested, depressing returns (Muriuki & Nduta, 2022). Effective cash-flow management therefore requires a continuous balancing of these competing demands, and the quality of that balancing is expected to be reflected in the society's financial performance (Waweru & Kimathi, 2024).

While a substantial literature links financial management practices to the performance of co-operative financial institutions, much of the Kenyan evidence has examined liquidity at the level of financial ratios, often within single counties, and has rarely combined survey evidence with the accounts of the senior officers who make liquidity decisions (Wanjiru & Waweru, 2025). There is consequently limited national, mixed-methods evidence on how the relationship between cash-flow management and financial performance is produced in practice. This study addresses that gap by examining the effect of cash-flow management on the financial performance of DT-SACCOs across the full national population of licensed societies. The objective of the study was to determine the effect of cash-flow management on the financial performance of deposit-taking SACCOs in Kenya, and the corresponding null hypothesis ( $H_0$ ) was that cash-flow management has no statistically significant effect on the financial performance of deposit-taking SACCOs in Kenya.

The study is significant for several audiences. For the boards and management of DT-SACCOs, it provides evidence on a practice that is largely within their control and that, if managed well, can improve

performance, together with concrete guidance on how to manage it. For SASRA and policy makers, it informs the calibration of the prudential framework within which liquidity is managed, drawing attention to the risk that uniform requirements may compel smaller societies to hold unproductive reserves. For the scholarly community, it contributes national, mixed-methods evidence on a sub-sector that has been studied mainly at the county level and through single methods, and it demonstrates the value of integrating three complementary theories to explain a single relationship. In conceptual terms, the study treats cash-flow management, operationalised through liquidity routines, forecasting and the management of the current and cash ratios, as the independent variable, and financial performance, operationalised through profitability, liquidity, asset quality and growth, as the dependent variable, with the relationship between them examined both statistically and through the accounts of those who manage it.

Financial performance in deposit-taking co-operatives is a multidimensional construct rather than a single figure. It is commonly assessed through profitability, captured by indicators such as the return on assets and the return on equity; through liquidity, captured by the current, quick and cash ratios; through asset quality, captured by the ratio of non-performing loans to the loan book; and through growth and sustainability, captured by the expansion of assets, deposits and membership over time. A society may perform strongly on one dimension while remaining exposed on another, so that the management of cash-flow, which bears most directly on the liquidity dimension, also has consequences for profitability through the opportunity cost of idle balances and for sustainability through the confidence of members. Conceptualising financial performance in these multidimensional terms allows the present study to trace how a single internal practice, cash-flow management, transmits its effects across the several dimensions through which the performance of a DT-SACCO is judged.

## II. THEORETICAL REVIEW

The study was anchored on three theories that, taken together, explain why DT-SACCOs hold and manage cash and how that management bears on financial performance. Each theory is presented in terms of its proponents, a brief description, its relevance to the study, and its strengths and weaknesses together with the mitigation adopted in this study. The three theories are complementary rather than competing: the Liquidity Preference Theory explains why a society values liquidity and is willing to hold it; the Baumol Model, with its Miller-Orr extension, explains how much liquidity a society should hold and how it should manage the balance under uncertainty; and the Transaction Cost Theory explains the mechanism through which sound liquidity management translates into financial performance, namely the reduction of the costs of meeting obligations and of distress. Read together, they supply a fuller account of cash-flow management than any one of them could alone, and they frame the empirical analysis that follows.

### 2.1 Liquidity Preference Theory

The Liquidity Preference Theory was advanced by John Maynard Keynes (1936). At its core, the theory treats the holding of money as a deliberate choice rather than a residual, arguing that people and institutions keep part of their wealth in cash because liquidity itself yields a kind of return in the form of flexibility and security. Keynes traced this preference to three distinct reasons for wanting cash on hand: the need to fund everyday transactions, the desire to keep a reserve against surprises, and the wish to stay ready for profitable openings as they appear. In each case the holder accepts a sacrifice, namely the income that the same funds would have earned if invested, in exchange for the advantages that ready money confers.

The theory is relevant to the present study because a DT-SACCO holds liquid balances precisely for the transaction and precautionary motives that Keynes identified, namely to settle member withdrawals as they arise and to guard against unexpected demand. The speculative motive is also pertinent, since a society that holds liquidity in anticipation of attractive lending or investment opportunities is exercising the third of Keynes's motives. The theory

thus frames the central tension of cash-flow management in a deposit-taking institution, namely the tension between the desire to hold liquidity for security and the desire to deploy it for return, and it locates that tension in the rational preferences of the society rather than in administrative accident.

Its principal strength is that it explains why liquidity has value to a deposit-taking institution and why a prudent society maintains buffers rather than investing all of its funds, and it does so in a way that connects directly to the member-confidence dimension that emerged from the qualitative strand of this study. Its main weakness is that it is a macro-level theory of money demand that was formulated to explain the behaviour of an economy rather than the cash-management decisions of an individual firm, and it does not by itself specify the optimal level of cash a society should hold. This weakness was mitigated in the present study by combining the theory with the Baumol Model, which addresses the determination of an optimal cash balance directly, so that the motive for holding liquidity supplied by Keynes is matched with a decision rule for how much to hold.

## 2.2 Baumol Model of Cash Management

The Baumol Model of Cash Management was developed by William J. Baumol (1952), whose insight was to treat a firm's cash holdings as a stock to be replenished in the same disciplined way a business restocks inventory. On this view, every time a society draws cash by selling off interest-earning assets it incurs a fixed switching cost, yet every shilling left sitting as cash quietly surrenders the interest it might have earned. Baumol showed that these two pressures pull in opposite directions and that there is a single replenishment pattern at which their combined burden is lightest, which defines the cash balance a rational manager should target.

The model is relevant because it formalises the balancing exercise at the heart of cash-flow management in a DT-SACCO, in which the cost of holding idle liquidity is weighed against the cost and risk of being short of cash. In the language of the model, the carrying cost is the interest or lending income forgone by holding cash rather than

deploying it in member loans, while the transaction cost is the cost incurred when the society must convert other assets into cash or raise funds to meet an unexpected shortfall. The optimal balance is the point at which the sum of these costs is minimised, which provides a principled answer to the question of how much liquidity a society should hold.

Its strength is that it provides a clear, decision-useful rule for setting a target cash balance and that it makes explicit the trade-off that the senior officers in this study described in their own words. Its weakness is that it assumes cash flows are steady, predictable and known with certainty, which rarely holds for a society facing irregular member withdrawals and seasonal inflows. This weakness was mitigated by drawing on the Miller and Orr (1966) extension, which relaxes the assumption of certainty by treating cash flows as stochastic and allowing the cash balance to fluctuate between an upper and a lower control limit, with the society buying or selling assets only when the balance reaches a limit. This control-limit logic closely matches the corridor approach to liquidity reported by the senior officers in this study, and its inclusion ensures that the theoretical framework reflects the uncertainty under which DT-SACCOs actually operate.

## 2.3 Transaction Cost Theory

The Transaction Cost Theory traces its origins to Ronald Coase (1937) and was later elaborated by Oliver Williamson (1981). The theory begins from the observation that economic exchange is never free, since every dealing carries hidden burdens of searching, bargaining, monitoring and guarding against the other party's self-interest. Firms exist, on this account, because there are circumstances in which handling an activity internally proves cheaper than repeatedly contracting for it in the open market. The level and arrangement of an institution's activities are thus shaped by a continual effort to keep these frictional costs as low as possible.

The theory is relevant because, for a DT-SACCO, the most significant transaction costs arise from the uncertainty surrounding the timing and scale of member withdrawals; a society that manages cash-flow well reduces these costs and avoids the heavier

costs of distress borrowing or the forced liquidation of assets. When a society is caught short of cash, it must either borrow at short notice, often on unfavourable terms, or liquidate earning assets prematurely, incurring losses; both responses are costly, and both are avoided by sound cash-flow management. The theory therefore predicts that disciplined liquidity management lowers the transaction costs of operating a deposit-taking institution and, in doing so, supports its financial performance, while also implying a limit, because the resources devoted to holding and managing liquidity are themselves a cost that rises with the size of the buffer.

Its strength is that it links liquidity management directly to performance through the concrete and measurable mechanism of cost reduction, which complements the motive-based account of the Liquidity Preference Theory and the decision rule of the Baumol Model. Its weakness is that it can understate the role of relationship and trust in member-owned institutions, where repeated interaction between a society and its members lowers information and monitoring costs in ways the transaction-cost calculus does not fully capture. This weakness was mitigated by complementing the theory with the qualitative strand of the study, which captured the member-confidence dimension of liquidity management, showing that the reliable settlement of withdrawals functions not only as a cost-avoidance device but as a signal of soundness that sustains the member relationships on which the society depends.

### III. EMPIRICAL REVIEW

A growing body of recent research has examined the relationship between cash-flow and liquidity management and the financial performance of savings and credit co-operative societies in Kenya and the wider East African region. The reviewed studies converge on a positive association between disciplined liquidity management and performance, while differing in their geographical scope, their conceptualisation of the outcome and the methods they employ, and several of them point toward a non-

linear relationship that the present study takes up directly.

The most direct Kenyan evidence on cash-flow management comes from studies conducted at the county level. Lekaaso, Mbuba and Cherono (2025), in a descriptive cross-sectional study of the thirty licensed deposit-taking societies in the predominantly rural Samburu County and guided by the Liquidity Preference Theory, found that cash-flow planning had a positive and significant effect on financial performance, with societies that forecast and planned their liquidity reporting stronger outcomes while those with irregular inflows and weak planning experienced delinquency and liquidity stress. Muriuki and Nduta (2022) reached a comparable conclusion using a quantitative correlational design in Kenya, disaggregating cash-flow management into forecasting, budgeting and the monitoring of cash positions and finding that each was positively and significantly related to financial performance, with forecasting emerging as the most influential practice. Both studies establish the relationship clearly, but each is confined to a limited sample and relies solely on quantitative survey data, leaving open the questions of whether the relationship holds across the national sub-sector and of how the effect is produced in the day-to-day practice of society officers.

A second strand of the Kenyan literature has approached the question through liquidity ratios and liquidity planning. Wanjiru and Waweru (2025), in a causal study of SACCOs in Kiambu County that drew on the cash conversion cycle theory and the resource-based view and that subjected its data to diagnostic testing before regression, found that the current, quick and cash ratios were positively associated with performance and sustainability, with strongly liquid societies recording better growth in assets and membership. Musyoka and Karuiru (2024), using a quantitative survey of society managers across Kenya, similarly found that liquidity planning, measured through forecasting, budgeting and ratio monitoring, significantly enhanced financial stability and reduced the incidence of liquidity stress. These ratio-based and planning-based studies corroborate the performance relationship from a different measurement angle, but their reliance on

financial ratios and stability outcomes, and their single-county or purely quantitative designs, mean they capture neither the broader construct of financial performance nor the management decisions and trade-offs that produce the ratios.

A particularly important qualification emerges from the work of Waweru and Kimathi (2024), whose descriptive survey of Kenyan cooperative societies found that while disciplined liquidity control improved financial efficiency, excessive liquidity holdings depressed returns, pointing to a non-linear relationship in which both insufficient and excessive liquidity are harmful. This finding is consequential because it suggests that the positive linear relationships reported elsewhere are best understood as averages that hold within a range, yet the study did not estimate the threshold at which the relationship reverses, nor explore how managers recognise and navigate the trade-off in practice. Beyond Kenya, the regional evidence is consistent: Rwakasoro et al. (2025), in a mixed-methods study of SACCOs in Fort Portal Tourism City in Uganda, found that sound management practices, including the management of liquidity and short-term resources, significantly improved financial performance, reinforcing the relationship in a comparable East African setting, though as a study of strategic management practices in general rather than cash-flow management in particular it does not isolate the specific effect that concerns the present study.

Taken together, these studies establish a consistent and well-supported positive association between cash-flow and liquidity management and the financial performance of SACCOs across Kenyan and East African settings, and they increasingly hint at a bounded, non-linear character to that relationship. Three gaps nevertheless recur across the reviewed work. First, the Kenyan evidence is drawn predominantly from individual counties, such as Samburu and Kiambu, or from limited samples, which constrains its generalisability to the national sub-sector of licensed deposit-taking societies. Second, the evidence is overwhelmingly quantitative, resting on financial ratios and survey scores, with little integration of the accounts of the senior officers who actually manage liquidity, so that the literature

establishes that cash-flow management matters but says comparatively little about how its effect is produced. Third, although several studies hint at a non-linear relationship, few examine how managers recognise and navigate the trade-off between holding and deploying liquidity. The present study addresses these gaps by estimating the effect across the national population of 176 licensed deposit-taking SACCOs, by combining a census survey with in-depth interviews, and by using the qualitative evidence to interpret the bounded character of the relationship.

#### IV. CONCEPTUAL FRAMEWORK

The conceptual framework presented in Figure 1 depicts the hypothesised relationship between cash-flow management, the independent variable, and the financial performance of deposit-taking SACCOs, the dependent variable. Cash-flow management is conceptualised through four indicators, namely liquidity routines, cash-flow forecasting, current ratio management and cash ratio management, while financial performance is conceptualised through four dimensions, namely profitability, liquidity, asset quality, and growth and sustainability. The framework posits that effective cash-flow management influences financial performance, a relationship represented by the horizontal arrow running from the independent variable to the dependent variable, and it is this relationship that the study tested empirically.

Figure 1: Conceptual Framework

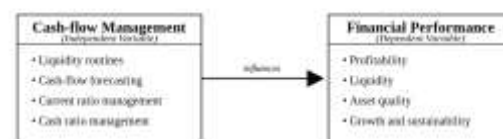


Figure 1: Conceptual Framework (Source: Author, 2026)

#### V. RESEARCH METHODOLOGY

The study adopted a pragmatism research philosophy and a convergent mixed-methods design, in which quantitative and qualitative data were collected in

parallel, analysed separately and then merged at the interpretation stage; this design was selected because the research objective called both for an estimate of the effect of cash-flow management on financial performance and for an understanding of the mechanisms behind it (Wanjiru & Waweru, 2025). The target population comprised the 176 licensed deposit-taking SACCOs in Kenya, and a census was applied to the 352 chief executive officers and chief finance officers of these societies, on the grounds that these officers hold primary responsibility for financial management decisions and that a census of a defined and accessible population removes sampling error (Lekaaso, Mbuba, & Cherono, 2025). Quantitative data were collected through a structured questionnaire measured on a five-point Likert scale, and qualitative data through in-depth interviews with twelve purposively selected senior officers using a semi-structured guide.

The validity of the questionnaire was established through expert review and a pilot study, and its reliability was assessed using the Cronbach alpha coefficient computed from the pilot data against the conventional threshold of 0.70, which the instrument met (Musyoka & Karuiru, 2024). A total of 259 usable questionnaires were returned, representing a response rate of 73.6 per cent, which exceeds the level generally regarded as adequate for analysis and generalisation in survey research. Cash-flow management was operationalised through indicators capturing liquidity routines, forecasting and the management of the current and cash ratios, and financial performance through the dimensions of profitability, liquidity, asset quality and growth, with the effect estimated using the model  $FP = \beta_0 + \beta_1.CFM + \epsilon$ . Quantitative data were analysed using descriptive statistics, Pearson product-moment correlation and simple linear regression, with the diagnostic assumptions of regression examined before estimation and the hypothesis tested at the 0.05 level of significance, while qualitative data were analysed thematically and merged with the quantitative results at the interpretation stage. Ethical clearance and the relevant research permits were obtained, informed consent was secured, and participation was voluntary and confidential.

## VI. QUANTITATIVE FINDINGS

### 6.1 Descriptive Findings

The respondents rated a set of statements describing their society's cash-flow management practices on a five-point Likert scale, where higher mean scores denote stronger agreement. The results are summarised in Table 1.

Table 1 Descriptive Statistics for Cash-flow Management

Statement	Mean	Std. dev.
Operating cash-flow supports our overall financial performance	4.18	0.74
Current ratio management contributes to our financial stability	4.05	0.81
Operating cash-flow is central to our borrowing and lending decisions	3.98	0.86
A high cash ratio is automatically beneficial to the society <sup>R</sup>	2.64	1.07
A high level of debt supports our financial performance <sup>R</sup>	2.41	1.12
Aggregate (after reverse-coding)	3.83	0.92

Note. Source: Field Data (2026). Scale: 1 = strongly disagree to 5 = strongly agree. <sup>R</sup> Item reverse-coded for the aggregate.

As shown in Table 1, the respondents agreed that operating cash-flow supports overall financial performance (M = 4.18, SD = 0.74) and that current ratio management contributes to financial stability (M = 4.05, SD = 0.81), and they agreed that operating cash-flow is central to borrowing and lending decisions (M = 3.98, SD = 0.86). In contrast, they disagreed that a high cash ratio is automatically beneficial (M = 2.64, SD = 1.07) and that a high level of debt supports performance (M = 2.41, SD = 1.12); because these two statements were negatively worded relative to sound cash-flow management, they were reverse-coded before the aggregate was computed. After reverse-coding, the aggregate mean was 3.83 (SD = 0.92), reflecting overall agreement that disciplined cash-flow management supports financial performance.

This pattern suggests that the respondents hold a cautious and balanced view of liquidity rather than a simple preference for holding more cash. The items describing the active management of liquidity attracted agreement, whereas the items implying that more cash or more debt is automatically better attracted disagreement, which suggests that officers regard liquidity as something to be managed within limits rather than maximised. This internally consistent pattern foreshadowed the bounded relationship that later emerged from the inferential analysis and the interviews.

This descriptive finding is consistent with the evidence of Muriuki and Nduta (2022), who reported that the active practices of forecasting and monitoring, rather than the mere holding of cash, drove performance, and with Waweru and Kimathi (2024), whose finding that excessive liquidity depresses returns helps to explain why the respondents in the present study rejected the notion that a high cash ratio is automatically beneficial. The balanced view revealed in the descriptive statistics therefore aligns with the Baumol Model's logic of an optimal rather than a maximal cash balance.

### 6.2 Correlation Analysis

The Pearson product-moment correlation was computed to establish the strength and direction of the association between cash-flow management and financial performance. The results are presented in Table 2.

Table 2 Correlation between Cash-flow Management and Financial Performance

	Cash-flow Management	Financial Performance
Cash-flow management (r)	1	0.512
Sig. (2-tailed)		<.001
N	259	259

As presented in Table 2, the analysis returned a correlation coefficient of 0.512 between cash-flow management and financial performance, significant at the one per cent level ( $r = 0.512, p < .001$ ), based on

259 observations. The coefficient is positive and falls within the moderate-to-strong range.

This indicates that societies which manage their cash-flow more effectively tend to record stronger financial performance, and that the association is unlikely to have arisen by chance. Liquidity management thus emerges not as a neutral back-office function but as a correlate of the bottom line, which justifies examining the relationship more rigorously. Because a correlation establishes association rather than causation and does not control for other influences, the relationship was examined further through regression.

This result is consistent with Wanjiru and Waweru (2025), who reported positive associations between the current, quick and cash ratios and SACCO performance in Kiambu County, and with Musyoka and Karuiru (2024), who linked liquidity planning to financial stability. The convergence of the present national correlation with these county-level findings strengthens confidence that the association is a general feature of the sub-sector rather than a local artefact.

### 6.3 Regression Analysis

A simple linear regression was conducted to determine the effect of cash-flow management on financial performance, and the output is reported in three parts: the model summary, the analysis of variance and the regression coefficients. The model summary, which indicates how much of the variation in financial performance is explained by cash-flow management, is presented in Table 3.

Table 3 Model Summary

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. error of estimate
0.512	0.262	0.260	0.756

Note. Source: Field Data (2026). Predictor: (Constant), Cash-flow Management.

Table 3 shows a coefficient of determination of 0.262, with an adjusted R<sup>2</sup> of 0.260 and a standard error of the estimate of 0.756. Cash-flow management therefore explained 26.2 per cent of the variation in financial performance. A single internal

practice thus accounts for just over a quarter of the differences in performance across societies, which marks cash-flow management as a substantial, though not exclusive, driver of performance and leaves the remaining variation to other practices and external factors. This explanatory share is consistent with Muriuki and Nduta (2022), who found cash-flow practices to be a meaningful but partial determinant of SACCO performance, confirming that liquidity discipline matters without claiming to be the sole driver.

The analysis of variance, which tests whether the model as a whole is statistically significant, is presented in Table 4.

Table 4 Analysis of Variance (ANOVA)

Model	Sum of squares	df	Mean square	F	Sig.
Regression	52.18	1	52.18	91.31	<.001
Residual	146.86	257	0.571		
Total	199.04	258			

Table 4 shows that the regression sum of squares was 52.18 against a residual of 146.86, yielding an F-statistic of 91.31 on 1 and 257 degrees of freedom, significant at  $p < .001$ . The model is therefore a valid predictor of financial performance rather than a chance result, so the observed relationship can be relied upon for inference about the wider population of deposit-taking SACCOs. This significant model fit mirrors the diagnostic-tested causal models of Wanjiru and Waweru (2025), reinforcing the conclusion that liquidity-related management is a statistically dependable predictor of SACCO performance rather than a spurious association.

The regression coefficients, which quantify the direction and size of the effect of cash-flow management and provide the basis for the hypothesis test, are presented in Table 5.

Table 5 Regression Coefficients

Predictor	B	Std. error	Beta	t	Sig.
(Constant)	2.510	0.165	—	15.21	<.001

Cash-flow management	0.448	0.047	0.512	9.535	<.001
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Note. Source: Field Data (2026). Dependent variable: Financial Performance.

Table 5 shows that cash-flow management had an unstandardised coefficient of 0.448 (SE = 0.047), a standardised coefficient of 0.512 and a t-value of 9.535, significant at  $p < .001$ , with a constant of 2.510, giving the equation  $FP = 2.510 + 0.448 \times CFM$ . A one-unit improvement in cash-flow management is therefore associated with a 0.448-unit increase in financial performance, and since the p-value is below 0.05 the null hypothesis that cash-flow management has no significant effect was rejected. In practical terms, deliberate investment in liquidity routines yields a measurable performance return, which gives management a concrete basis for prioritising cash-flow management. This positive and significant effect corroborates Lekaaso, Mbuba and Cheronon (2025) and the regional evidence of Rwakasoro et al. (2025), while the bounded reading developed in the discussion that follows reconciles it with the non-linear finding of Waweru and Kimathi (2024).

## VII. QUALITATIVE FINDINGS

The thematic analysis of the twelve in-depth interviews produced three themes, each with sub-themes, which together explain how cash-flow management is exercised in practice and why it bears on financial performance.

### 7.1 Theme One: Liquidity Discipline

The first theme concerned the routines through which societies maintain control over their cash position. Two sub-themes emerged, namely daily liquidity routines and structured oversight. Under the first sub-theme, officers described embedded daily practices such as pre-opening cash counts, intra-day liquidity checks and end-of-day forecasting. One chief finance officer explained:

“We watch the cash position every morning before opening. If we cannot pay a member on demand, we have already lost, so the morning check is not optional.”

Under the second sub-theme, structured oversight, officers reported that liquidity decisions were taken within a formal committee process rather than left to individual discretion. As one chief executive officer put it:

“The asset-liability committee meets every month, and liquidity is the first item. That discipline is what keeps us from drifting into a crisis.”

#### 7.2 Theme Two: Member Confidence

The second theme concerned the relationship between liquidity and member trust, with two sub-themes, namely reliable settlement and competitive differentiation. Officers consistently linked the reliable settlement of withdrawals to the confidence on which the society depends. One officer observed: “When a member walks in and is paid without delay, that member tells ten others. Our liquidity is really our reputation.”

Under the sub-theme of competitive differentiation, officers framed dependable liquidity as a point of distinction from informal savings schemes and, in some respects, from commercial banks, since members associated prompt payment with the safety of their savings.

#### 7.3 Theme Three: The Liquidity-Lending Trade-off

The third theme concerned the balancing of liquidity against lending and investment, with two sub-themes, namely the opportunity cost of idle cash and the corridor approach to liquidity. Officers were explicit that holding too much cash was costly. One chief finance officer noted:

“Idle cash earns us nothing. Every shilling that sits in the till is a shilling not earning interest from a member loan, so we do not keep more than we must.” Under the corridor sub-theme, officers described managing liquidity between an upper and a lower bound rather than maximising it, treating liquidity management as a balancing exercise. This account corresponds closely to the control-limit logic of the Miller and Orr extension of the Baumol Model, and it gives qualitative substance to the bounded relationship that emerged from the quantitative analysis.

#### 7.4 Discussion

Read together with the qualitative findings, these results indicate that the effect of cash-flow management is positive and significant but bounded: the officers’ corridor approach and their refusal to equate higher cash holdings with better performance imply that the linear coefficient is an average effect operating within a range, beyond which additional liquidity imposes an opportunity cost. This convergence of the statistical and interview evidence is consistent with the non-linear relationship reported by Waweru and Kimathi (2024) and strengthens confidence in the finding by reducing the risk of common-method bias.

The finding that cash-flow management has a positive and significant effect on financial performance is consistent with the recent Kenyan evidence of Lekaaso, Mbuba and Cheronon (2025), Muriuki and Nduta (2022) and Wanjiru and Waweru (2025), and with the East African evidence of Rwakasoro et al. (2025). The convergence of the present national, mixed-methods study with these single-county and regional studies strengthens the external validity of the relationship, suggesting that it holds across settings and across the methods used to study it. Interpreted through the Liquidity Preference Theory, the effect reflects the value that societies and their members place on the security provided by adequate liquidity, while the Transaction Cost Theory explains the mechanism, namely that disciplined cash-flow management lowers the costs of meeting member obligations and avoids the heavier costs of distress borrowing and forced asset sales.

The bounded nature of the effect is best understood through the Baumol Model and its Miller-Orr extension. The officers’ description of an opportunity cost of idle cash and of a corridor approach to liquidity corresponds directly to the model’s logic that there is an optimal cash balance beyond which the carrying cost of holding cash exceeds its benefit. The qualitative evidence therefore does more than corroborate the statistical result; it explains why the relationship is bounded and how managers operationalise that boundary in practice, through control limits that keep liquidity above a prudential floor and below an efficiency ceiling. This integrated

account, in which three theories each explain a different facet of the same relationship, is the principal contribution of the study, and it advances the literature beyond the single-theory, single-method studies that have dominated the field.

The findings also carry practical weight. The magnitude of the effect, with cash-flow management explaining just over a quarter of the variation in performance, indicates that liquidity discipline is a substantial lever available to society management, and one that is largely within their control, unlike macroeconomic conditions or the regulatory environment. At the same time, the bounded nature of the effect cautions against the intuitive but mistaken belief that accumulating cash is always prudent, since idle balances depress the returns on which members' dividends and the society's growth depend. The implication for management is that cash-flow management should be pursued as an optimisation problem rather than a maximisation one, a conclusion that the recommendations of this study translate into specific measures.

For policy, the bounded character of the relationship has a particular implication for the design of prudential liquidity requirements. A uniform minimum liquidity ratio applied across societies of very different sizes may push smaller societies, which have less capacity to deploy surplus funds into earning assets, toward holding liquidity at or above the regulatory floor in a way that depresses their returns, while leaving larger societies comfortably within the efficient range. The evidence therefore supports a calibrated approach in which liquidity requirements are sensitive to the scale and risk profile of the society, so that the framework protects depositors without imposing an undue performance penalty on the smaller societies that are most vulnerable to it. This reading is consistent with the wider literature on the uneven distribution of compliance costs across institutions of different sizes, and it connects the management-level finding of this study to a concrete question of regulatory design.

Finally, the convergence of the quantitative and qualitative strands has a methodological implication for the study of SACCO performance. The fact that

the regression result was independently corroborated by the accounts of the senior officers, who described in their own words the routines, the member-confidence mechanism and the bounded trade-off that the statistics imply, strengthens confidence in the finding and reduces the risk that it is an artefact of common-method bias in the survey. It also demonstrates the value of mixed-methods designs in a field that has been dominated by ratio-based quantitative studies, since the qualitative evidence supplied the mechanisms and the boundary conditions that the quantitative evidence alone could only suggest.

## VIII. CONCLUSIONS AND RECOMMENDATIONS

### 8.1 Conclusions

The study concludes that cash-flow management is a significant positive driver of the financial performance of deposit-taking SACCOs in Kenya. Disciplined liquidity management lowers the transaction costs of meeting member obligations and strengthens the member confidence on which the deposit-taking model depends, and it accounts for a substantial share of the variation in performance across societies. The convergence of the survey and interview evidence shows that the statistical relationship is matched by the lived management routines of senior officers, who treat liquidity as a balancing exercise rather than a maximisation problem.

The study further concludes that the effect of cash-flow management is bounded rather than unlimited. The qualitative accounts of an opportunity cost of idle cash and of a corridor approach to liquidity, together with the respondents' refusal to equate higher cash holdings with better performance, indicate that liquidity supports performance only up to the level required for operational and prudential needs, beyond which it depresses returns. Cash-flow management in a DT-SACCO is therefore best understood, consistent with the Baumol Model and its Miller-Orr extension, as the active management of liquidity between a prudential floor and an efficiency ceiling.

These conclusions carry both a theoretical contribution and a set of limitations that frame their scope. The theoretical contribution is the demonstration that the Liquidity Preference Theory, the Baumol Model and the Transaction Cost Theory are complementary rather than competing in this setting, each explaining a different facet of the relationship: the first explains why liquidity is valued, the second how much should be held, and the third how its management lowers costs and raises performance. The limitations are that the cross-sectional design captured the relationship at a single point in time and could not establish causation over time; that the evidence reflects the perceptions of chief executive and chief finance officers rather than the full range of stakeholders; and that the study was confined to licensed DT-SACCOs in Kenya, so its conclusions apply most directly to that regulated sub-sector. Subject to these qualifications, the study provides national, mixed-methods evidence that cash-flow management is a significant and bounded driver of the financial performance of deposit-taking SACCOs in Kenya.

## 8.2 Recommendations

1. The management of DT-SACCOs should institutionalise the daily liquidity routines identified in this study, including pre-opening cash counts, intra-day liquidity checks and end-of-day cash forecasting, by codifying them in the society's operations manual so that they are applied consistently rather than left to individual discretion.
2. The boards of DT-SACCOs should establish or strengthen a monthly asset-liability committee that treats liquidity as a standing agenda item, so that liquidity decisions are taken within a formal oversight structure rather than reactively.
3. The management of DT-SACCOs should frame liquidity policy explicitly as a managed corridor with documented upper and lower bounds, in line with the Miller-Orr control-limit logic, so that the society neither falls below its prudential floor nor accumulates idle cash above an efficiency ceiling.
4. The management of DT-SACCOs should adopt routine cash-flow forecasting and ratio monitoring as decision tools, using the resulting information to time lending and investment so

that surplus liquidity is deployed into earning assets rather than held idle.

5. SASRA and policy makers should maintain the emphasis on liquidity within the prudential framework while calibrating liquidity requirements to the scale of the society, so that smaller societies are not compelled to hold unproductive reserves that depress their performance.
6. Future research should adopt a longitudinal design to test whether the disciplined liquidity routines identified here remain robust under macroeconomic stress, and should model the curvilinear form of the liquidity-performance relationship directly in order to estimate the threshold at which additional liquidity ceases to add value.

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