

Effect of Cash-Flow Planning on the Financial Performance of Deposit-Taking Savings and Credit Co-Operative Societies in Samburu County, Kenya

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Abstract

Rural SACCOs often face irregular cash inflows, high delinquency rates, and low deposit mobilization capacity. These disparities underline a persistent institutional gap in liquidity strategy and financial resilience in rural SACCOs. The purpose of the study was to assess the effect of cash-flow planning on the financial performance of deposit-taking savings and credit co-operative societies in Samburu County, Kenya. Liquidity Preference Theory was the main theory of the study. The study employed a descriptive cross-sectional design. The unit of analysis for this study consisted of the 30 licensed deposit-taking SACCOs in Samburu County. The study targeted all 120 eligible respondents, comprising finance managers, accountants, internal auditors, and operations managers from all 30 deposit-taking SACCOs. The census method was used to sample the study respondents. Data was collected using structured questionnaires and analysed through descriptive and inferential statistical methods. The present study conducted a pilot test with 12 participants, representing approximately 10% of the total population of 120 respondents. These participants were drawn from three deposit-taking SACCOs in Isiolo County with similar operational profiles. The study established a moderate and statistically significant positive relationship between cash flow planning and financial performance. Regression analysis showed that cashflow planning explained 29.1% of the variance in financial performance, with a one-unit increase in cashflow planning resulting in a 0.639-unit increase in financial performance. The findings concluded that effective cash flow forecasting, budgeting practices, and alignment of inflows and outflows improve liquidity readiness and operational efficiency. It is recommended that deposit-taking SACCOs adopt formalized cashflow planning frameworks to guide liquidity management decisions. These frameworks should incorporate tools for cash flow forecasting, cash budgeting, and inflow–outflow alignment. SACCOs should establish liquidity reserve policies to safeguard against unanticipated financial obligations and ensure uninterrupted service delivery.

Keywords: *Cash-flow Planning, Financial Performance, Deposit-Taking Savings and Credit Co-operative Societies, Samburu County, Kenya*

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1. Introduction

The financial performance of Deposit-Taking Savings and Credit Co-operative Societies (DT-SACCOs) is a critical indicator of their capacity to remain solvent, meet member obligations, and contribute to the broader stability of Kenya's financial system. Key indicators such as Return on Assets (ROA), Return on Equity (ROE), loan repayment rates, and capital adequacy ratios offer valuable insights into a SACCO's operational efficiency and resilience. Cashflow planning remains a critical element of liquidity management globally, allowing institutions to anticipate cash needs and maintain operational flexibility. Research by Becker and Stein (2022) highlights that cooperative banks in Europe that employ rolling cashflow projections and scenario analysis demonstrate superior financial outcomes and lower liquidity-related disruptions.

According to Nyandwi and Muthoni (2022), SACCOs in Rwanda and Uganda that implemented real-time cashflow monitoring and reserve buffers recorded higher financial performance, measured by ROA, net surplus margins, and capital adequacy. These findings underscore the positive correlation between proactive liquidity planning and institutional resilience across diverse socio-economic environments. Recent studies in Kenya confirm that strategic liquidity management enhances SACCO performance. For instance, Kibet and Nyamweya (2023) found that SACCOs implementing structured cashflow planning and maintaining liquidity buffers achieved higher ROE and net operating surplus.

1.1 Problem Statement

Financial management is central to the operational viability and sustainability of deposit-taking Savings and Credit Co-operative Societies. Within this domain, liquidity management represents a critical subset, ensuring that institutions maintain adequate liquid resources to meet short-term obligations, facilitate member withdrawals, and support loan disbursements. Empirical evidence confirms that SACCOs with strong liquidity management practices, such as cashflow planning, strategic deposit mobilization, investment in liquid assets, and quality loan books, tend to perform better financially than those with weak or reactive liquidity strategies (Banda & Mugisha, 2023; Kibet & Nyamweya, 2023).

Globally, cooperative financial institutions that implement proactive liquidity controls report significant improvements in financial stability. According to the World Council of Credit Unions (WOCCU, 2022), institutions that consistently adhered to minimum liquidity benchmarks experienced a 6.2% increase in Return on Assets (ROA) between 2020 and 2022, compared to a 2.8% decline among those without such controls. Furthermore, liquidity-compliant cooperatives recorded a 5.5% improvement in their capital adequacy ratios over the same period (OECD, 2022). However, institutions lacking structured liquidity mechanisms experienced cashflow disruptions, increased default rates, and loss of member trust, especially during economic downturns (Becker & Stein, 2022; Dlamini & Mokoena, 2021).

In Kenya, the SACCO sub-sector forms an integral part of the financial system, particularly in rural counties. Despite regulatory efforts by the Sacco Societies Regulatory Authority (SASRA), challenges related to liquidity management persist. SASRA (2023) reported that over 40% of deposit-taking SACCOs failed to meet the statutory liquidity ratio of 15%, indicating widespread deficiencies in liquidity planning and compliance. While the sector's total assets have increased from KES 442 billion in 2016 to KES 807 billion in 2023, many

SACCOs continue to experience liquidity mismatches due to delayed loan repayments, seasonal deposit flows, and limited investment diversification.

In Samburu County, these challenges are further exacerbated by geographic, economic, and infrastructural limitations. Rural SACCOs often face irregular cash inflows, high delinquency rates, and low deposit mobilization capacity. Wanjiku and Achieng (2022) noted that SACCOs in marginalized counties with weak liquidity structures reported an average ROA of 2.4% in 2022, significantly lower than the 5.7% recorded by SACCOs in urban areas with formal liquidity policies and diversified revenue streams. These disparities underline a persistent institutional gap in liquidity strategy and financial resilience in rural SACCOs.

Despite the recognized importance of liquidity management, most studies in Kenya have focused on commercial banks and SACCOs in urban counties, leaving a significant empirical gap regarding rural-based institutions (Amolo & Odundo, 2023; Njeri & Wekesa, 2022). Conceptually, there is limited research exploring the specific dimensions of liquidity management, such as cash flow planning on financial performance. This lack of localized and variable-specific insights limits evidence-based policy interventions and internal SACCO strategy formulation. This study, therefore, sought to investigate the effect of cash-flow planning on the financial performance of deposit-taking SACCOs in Samburu County.

1.2 Purpose of the Study

To assess the effect of cash-flow planning on the financial performance of deposit-taking savings and credit co-operative societies in Samburu County, Kenya.

1.3 Research Hypothesis

H₀₁: Cashflow planning has no significant effect on the financial performance of deposit-taking Savings and Credit Co-operative Societies in Samburu County, Kenya.

2. Literature Review

2.1 Theoretical Review

Liquidity Preference Theory (LPT), originally proposed by John Maynard Keynes in 1936. LPT posits that economic agents prefer liquidity because of three primary motives: transaction, precautionary, and speculative (Keynes, 1936). The theory asserts that institutions seek to maintain liquid assets to ensure smooth day-to-day operations, safeguard against unforeseen financial needs, and strategically respond to emerging opportunities. Within the financial management context of Deposit-Taking Savings and Credit Co-operative Societies (DT-SACCOs), this theory underlines the importance of efficient cash flow planning to uphold solvency and ensure operational continuity.

This study applied Liquidity Preference Theory to assess how cash flow planning affects the financial performance of DT-SACCOs in Samburu County. It evaluated the extent to which SACCOs forecast, allocate, and monitor cash resources to meet both short-term obligations and long-term financial goals. Key performance indicators such as ROA, liquidity ratio, loan repayment performance, and member retention rates were used to examine the relationship between planned liquidity management and financial outcomes. The findings are expected to generate empirical evidence supporting the application of LPT principles in enhancing SACCO financial resilience and sustainability.

2.2 Empirical Review

According to Fernandez and Morales (2021), institutions that implement forward-looking cash budgeting, cash reserve policies, and real-time cash tracking systems demonstrate enhanced liquidity profiles and improved profitability. Their longitudinal study across credit unions in Latin America revealed that institutions with structured cashflow frameworks reported 12–15% higher ROA compared to those relying on reactive liquidity approaches. Similarly, Chikwendu et al. (2020) found that microfinance institutions practicing disciplined cashflow monitoring reduced default rates and strengthened capital adequacy.

A study by Ndegwa and Makau (2023) revealed that SACCOs in Kenya that employed cash budgeting tools, cash flow forecasts, and liquidity stress testing reported superior liquidity ratios and loan repayment performance. These SACCOs were better positioned to allocate resources efficiently, manage seasonal income fluctuations, and ensure timely loan disbursement. Likewise, Cheruiyot and Mutinda (2023) found that SACCOs using digital platforms for cashflow tracking recorded fewer cash shortfalls and maintained more stable operational cash reserves.

Muli and Wanyama (2023) also noted that most rural SACCOs lack dedicated treasury functions or financial analysts, making it difficult to anticipate liquidity gaps and respond to financial shocks promptly. Consequently, these institutions are more vulnerable to liquidity crises, which negatively impact loan disbursement, member confidence, and long-term sustainability.

3. Methodology

The study employed a descriptive cross-sectional design. The unit of analysis for this study consisted of the 30 licensed deposit-taking SACCOs in Samburu County. The study targeted all 120 eligible respondents, comprising finance managers, accountants, internal auditors, and operations managers from all 30 deposit-taking SACCOs. The census method was used to sample the study respondents. Data was collected using structured questionnaires and analysed through descriptive and inferential statistical methods. The present study conducted a pilot test with 12 participants, representing approximately 10% of the total population of 120 respondents. These participants were drawn from three deposit-taking SACCOs in Isiolo County with similar operational profiles.

4. Results and Discussion

4.1 Reliability Statistics

The study conducted a pre-test study to examine whether the instrument maintained consistency of measure. The results are indicated in Table 1.

Table 1: Reliability Results

Variable	Cronbach’s Alpha	No. of Items	Decision
Questionnaires	0.803	6	

According to Table 1, the questionnaires answered by the project heads and community project members had a Cronbach Alpha Coefficient of 0.803. This finding aligns with methodological

standards in social science research, which regard alpha values of 0.70 and above as satisfactory (Karanja & Omwenga, 2023; Mugambi & Mwenda, 2022; Tavakol & Dennick, 2020).

4.2 Response Rate

The study targeted a total of 120 respondents drawn from deposit-taking Savings and Credit Co-operative Societies (SACCOs) in Samburu County. The results are indicated in Table 2.

Table 2: Response Rate

Questionnaires	Frequency	Percentage (%)
Returned	96	80.00%
Not Returned	24	20.00%
Total	120	100.00%

As noted in Table 2, out of the distributed questionnaires, 96 were completed and returned, while 24 were not, resulting in a response rate of 80%. This commendable return rate is attributed to the researcher’s use of personally administered questionnaires, which allowed for respondent engagement and real-time clarification of queries. This strategy minimized misunderstandings and improved data completeness, thereby enhancing the overall quality and reliability of the collected responses.

According to Bryman and Bell (2022), a response rate exceeding 70% is considered statistically robust and helps reduce the likelihood of non-response bias. Similarly, Nguyen and Bui (2023) argue that higher response rates increase statistical power and improve the representativeness of the sample, thereby strengthening the reliability of inferential conclusions. Consequently, the 80% response rate achieved in this study is deemed satisfactory for conducting rigorous statistical analyses and generalizing findings to the broader population of SACCOs in the county. Table 4.1 provides a summary of the achieved response rate.

4.3 Descriptive Statistics for the Construct Cashflow Planning

This section examined how respondents perceived the role of cashflow planning in influencing the financial performance of deposit-taking Savings and Credit Co-operative Societies (SACCOs) in Samburu County. The construct was assessed through six key indicators: application of cashflow forecasting tools, effectiveness in meeting financial obligations, regular inflow–outflow monitoring, prevention of liquidity shortages, financial performance improvement, and support for investment and lending decisions. The results are indicated in Table 3.

Table 3: Descriptive Statistics for the Construct Cashflow Planning

Statement N=96	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)	Mean	Std. Deviation
Our SACCO uses cashflow forecasting tools to enhance financial planning.	4 (4.2%)	8 (8.3%)	13 (13.5%)	49 (51.0%)	22 (23.0%)	3.86	0.913
Effective cashflow planning improves our SACCO's ability to meet financial obligations.	5 (5.2%)	10 (10.4%)	12 (12.5%)	48 (50.0%)	21 (21.9%)	3.83	0.891
Monitoring inflows and outflows regularly supports stable financial operations.	3 (3.1%)	9 (9.4%)	16 (16.7%)	46 (47.9%)	22 (22.9%)	3.84	0.902
Cashflow planning reduces instances of liquidity shortages.	6 (6.3%)	11 (11.5%)	13 (13.5%)	47 (48.9%)	19 (19.8%)	3.77	0.954
Our SACCO's financial performance has improved due to proactive cash flow planning.	5 (5.2%)	12 (12.5%)	13 (13.5%)	48 (50.0%)	18 (18.8%)	3.75	0.926
Cashflow planning contributes to better investment and lending decisions.	4 (4.2%)	9 (9.4%)	14 (14.5%)	49 (49.0%)	20 (20.8%)	3.88	0.897

The findings in Table 3 indicated that most respondents agreed that their SACCOs employ cashflow forecasting tools to enhance financial planning. A total of 51.0% agreed and 23.0% strongly agreed, while only 4.2% strongly disagreed. This yielded a mean of 3.86 and a standard deviation (SD) of 0.913, reflecting generally positive views with moderate variability. On the effectiveness of cashflow planning in meeting financial obligations, 50.0% agreed and 21.9% strongly agreed, producing a mean score of 3.83 (SD = 0.891). These results highlight widespread confidence in the role of planning in managing liquidity responsibilities. Additionally, 47.9% agreed and 22.9% strongly agreed that regular monitoring of inflows and outflows supports stable operations. The mean score was 3.84 (SD = 0.902), suggesting solid support for structured liquidity oversight.

In terms of reducing liquidity shortages, 48.9% agreed and 19.8% strongly agreed that proper planning mitigates shortfalls. The mean score was 3.77 (SD = 0.954), with 6.3% of respondents strongly disagreeing. Furthermore, 50.0% agreed and 18.8% strongly agreed that proactive planning improved financial performance, resulting in a mean of 3.75 (SD = 0.926). Lastly, 49.0% agreed and 20.8% strongly agreed that cash flow planning aids better investment and lending decisions. This item recorded the highest mean of 3.88 (SD = 0.897). These results affirm that strategic cash flow planning is widely perceived as critical to SACCO performance. The findings align with recent studies that link cash budgeting, liquidity monitoring, and

treasury oversight with improved financial stability in SACCOs (Ndiritu & Njuguna, 2022; Otieno & Cheruiyot, 2023; Musyoka & Karuiru, 2024).

4.4 Descriptive Statistics for the Construct Financial Performance of Deposit-Taking SACCOs

This section presents the findings on financial performance as perceived by respondents from deposit-taking Savings and Credit Co-operative Societies (SACCOs) in Samburu County. The construct was measured using six indicators: achievement of profitability targets, influence on Return on Assets (ROA), impact on Return on Equity (ROE), stability of earnings growth, reduction of financial risks, and overall financial performance improvement attributed to liquidity management practices. The results are indicated in Table 4.

Table 4: Descriptive Statistics for the Construct Financial Performance

Statement N=96	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)	Mean	Std. Deviation
Our SACCO consistently meets profitability targets.	3 (3.1%)	8 (8.3%)	13 (13.5%)	52 (54.2%)	20 (20.8%)	3.85	0.946
Liquidity management has improved our Return on Assets (ROA).	2 (2.1%)	6 (6.3%)	15 (15.6%)	49 (51.0%)	23 (23.5%)	3.89	0.914
Liquidity practices positively influence our Return on Equity (ROE).	5 (5.2%)	7 (7.3%)	14 (14.6%)	46 (48.0%)	24 (21.6%)	3.80	0.968
The SACCO's earnings growth is supported by strong liquidity strategies.	6 (6.3%)	7 (7.3%)	14 (14.6%)	45 (47.1%)	24 (22.5%)	3.78	0.981
Effective liquidity management helps reduce financial risks.	4 (4.2%)	6 (6.3%)	15 (15.6%)	47 (49.0%)	21 (21.6%)	3.81	0.957
Our overall financial performance has improved due to proper liquidity management.	3 (3.1%)	6 (6.3%)	13 (13.5%)	46 (48.0%)	24 (24.5%)	3.90	0.912

The results revealed in Table 4 note that a substantial proportion of respondents affirmed that their SACCOs consistently achieved profitability targets. Specifically, 54.2% agreed and 20.8% strongly agreed, while 3.1% strongly disagreed. This produced a mean score of 3.85 and a standard deviation (SD) of 0.946, indicating a generally favorable perception of profitability performance. On the effect of liquidity management on ROA, 51.0% of respondents agreed and 23.5% strongly agreed, resulting in a mean score of 3.89 (SD = 0.914). These results underscore the importance of effective liquidity utilization in enhancing asset efficiency. Regarding ROE, 48.0% agreed and 21.6% strongly agreed that proper liquidity practices positively influenced their SACCO's return on equity. The indicator recorded a mean of 3.80 and an SD of 0.968, reflecting moderate consensus on this performance aspect. In terms of

earnings stability, 47.1% of respondents agreed and 22.5% strongly agreed that sound liquidity strategies contributed to consistent earnings growth, although 13.7% remained neutral.

The resulting mean score was 3.78 (SD = 0.981), suggesting steady support for the stabilizing role of liquidity planning. Additionally, 49.0% agreed and 21.6% strongly agreed that effective liquidity management helped reduce financial risks. The mean score was 3.81 (SD = 0.957), indicating confidence in liquidity strategies as a tool for risk mitigation. Lastly, 48.0% agreed and 24.5% strongly agreed that overall financial performance had improved significantly due to sound liquidity management practices. This item recorded the highest mean of 3.90 (SD = 0.912), reflecting strong endorsement of the strategic value of liquidity optimization. These findings are consistent with empirical literature that highlights the critical role of liquidity management in enhancing SACCO profitability, reducing risk exposure, and improving capital efficiency (Njenga & Makori, 2021; Chebet & Muturi, 2023; Waweru & Kimathi, 2024). Strategic control over liquidity resources enables SACCOs to maintain financial stability, meet member obligations, and sustain long-term growth.

4.5 Regression Analysis

Table 5 presents the regression results assessing the influence of cashflow planning on the financial performance of deposit-taking SACCOs in Samburu County. The coefficient of correlation (R) is 0.547, indicating a moderate positive relationship between cash flow planning and financial performance. The coefficient of determination (R²) is 0.299, suggesting that cashflow planning explains 29.9% of the variance in financial performance, while the remaining 70.1% is attributed to other variables not captured in this model. The adjusted R² value of 0.291 confirms the model’s stability and explanatory reliability across the sample.

The standard error of the estimate is 0.327, representing the average deviation between the observed and predicted financial performance values. These findings imply that the implementation of robust cashflow forecasting tools, cash budgeting practices, and inflow–outflow alignment significantly contributes to enhancing financial performance among SACCOs. These results corroborate previous studies, such as those by Muriuki and Nduta (2022), who emphasized that SACCOs with structured cashflow monitoring systems and active treasury functions tend to achieve better liquidity control and financial outcomes.

Table 5: Model Summary for Cashflow Planning

R	R-Square	Adjusted R-Square	Std. Error of the Estimate
0.547	0.299	0.291	0.327

The ANOVA results shown in Table 6 confirm the statistical significance of the regression model. The regression sum of squares is 278.346 with 1 degree of freedom, and the residual sum of squares is 653.276 over 94 degrees of freedom, yielding a total sum of squares of 931.622. The computed F-statistic is 76.337 with a p-value of 0.000, indicating that cashflow planning significantly predicts financial performance at the 5% level of significance.

Table 6: ANOVA for Cashflow Planning

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	278.346	1	278.346	76.337	.000
Residual	653.276	94	6.949		
Total	931.622	95			

As indicated in Table 7, the unstandardized regression coefficient (B) for cash flow planning is 0.639. This implies that a one-unit increase in cashflow planning practices is associated with a 0.639-unit increase in financial performance. The standardized beta coefficient is 0.547, confirming a moderate positive effect. The corresponding t-value is 8.738, which exceeds the critical threshold of 1.96 at the 5% level. The p-value of 0.000 further supports the statistical significance of the relationship. The resulting regression equation is:

$$Y = 2.784 + 0.639X_1$$

Where:

Y = Financial Performance

X₁ = Cashflow Planning

These findings are consistent with the conclusions of Otieno and Kiptoo (2023), who found that SACCOs employing systematic cash budgeting practices, reserve policies, and frequent cashflow monitoring are more likely to maintain liquidity adequacy and optimize service delivery.

Table 7: Coefficients for Cashflow Planning

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	T	Sig.
Constant	2.784	0.457		6.091	.000
Cashflow Planning	0.639	0.073	0.547	8.738	.000

4.6 Summary of the Findings

The study established a moderate and statistically significant positive relationship between cash flow planning and financial performance. Regression analysis showed that cashflow planning explained 29.1% of the variance in financial performance, with a one-unit increase in cashflow planning resulting in a 0.639-unit increase in financial performance. Descriptive findings indicated that the use of cashflow forecasting tools, regular budgeting practices, and liquidity reserve policies contributed to improved fund utilization and financial stability. Respondents emphasized that aligning inflows and outflows and instituting treasury oversight mechanisms enhanced SACCOs' ability to meet short-term obligations while supporting long-term investment planning. These findings align with Abuga and Nyambura (2021) and Ndiritu and Omwenga (2022), who confirmed that structured cashflow strategies enhance organizational liquidity and predictability in cooperative financial institutions.

5. Conclusion

The study demonstrated that cash flow planning significantly contributes to SACCO's financial performance. With a statistically significant beta coefficient ($\beta = 0.639$, $p = 0.000$). The findings concluded that effective cash flow forecasting, budgeting practices, and alignment of inflows and outflows improve liquidity readiness and operational efficiency. These results support prior evidence by Abuga and Nyambura (2021), who found that strategic cashflow control enhances institutional resilience and return predictability in cooperative settings.

6. Recommendations

It is recommended that deposit-taking SACCOs adopt formalized cashflow planning frameworks to guide liquidity management decisions. These frameworks should incorporate tools for cash flow forecasting, cash budgeting, and inflow–outflow alignment. SACCOs should establish liquidity reserve policies to safeguard against unanticipated financial obligations and ensure uninterrupted service delivery. Management teams are encouraged to monitor cash flow performance periodically and adjust forecasts based on actual operational data. Institutionalizing treasury functions and integrating cashflow planning into strategic planning processes will strengthen financial control, minimize funding gaps, and support sustainable performance, particularly in liquidity-sensitive environments.

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