

Influence of Liquidity Management Policies on Operational Efficiency of Savings and Credit Cooperative Societies in Kenya

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Abstract: SACCOs are prone to operational efficiency challenges such as liquidity shortages. This study sought to establish the relationship between liquidity management and levels of efficiency of SACCOs in Kenya. The purpose of the study was to examine how the Liquidity management policies influence operational efficiency of Savings and Credit Cooperative Societies (SACCOs) in Kenya. It was based on the liquidity preference and the anticipated income theories. The study used a descriptive survey design that targeted managers, chairmen and credit officer from all sixty one SACCOs located in Nyandarua County, Kenya. The study used stratified random sampling to arrive at the sample of 45. The study obtained primary data through a structured questionnaire and secondary data through a record survey sheet. The researcher obtained past reports from publications such as journals and media reports on the performance of SACCOs. From here a performance index was computed. Both descriptive and inferential data analyses were used. In inferential data analysis, correlation, regression and ANOVA analysis were used. The study revealed that majority of the SACCOs do not have a well known liquidity risk tolerance levels and neither do they maintain liquidity based on a policy guidelines and had failed to meet financial obligations to outsiders at least once within six months. The study recommends that SACCOs management and directors should develop and publicize liquidity risk tolerance levels that should stipulate contingency funding plan, maintenance of adequate levels and process of meeting financial obligations to outsiders. SACCOs management should embrace public disclosure to improve liquidity management and should manage administrative and running costs to ensure that they are within their capacity.

Key Words: (Liquidity, Liquidity Management Policy, Operational Efficiency, SACCOs)

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I. Introduction

Savings and Credit Cooperatives (SACCOs) and other group savings and loans organizations are an important means of providing financial services to populations that are, for whatever reason, outside the reach of banks and other conventional financial institutions. Credit unions have become increasingly prominent in policy circles in the last decade due to their capacity to provide affordable credit to people who are financially excluded. This has largely been driven by an expanding financial inclusion agenda that promote savings to those excluded from the mainstream. Consequently, interest in the potential role that credit unions play is likely to remain high (Hope, 2010).

Across the globe, savings and credit cooperatives are user-owned financial intermediaries. They are either referred to as credit unions or Savings and Credit Cooperatives (SACCOs). Members typically share a "common bond" based on a geographic area, employer, community or other affiliations. Members have equal voting rights, regardless of how many shares they own. Savings and credit are their principal services, although some offer money transfers, payment services and insurance as well. Savings and credit cooperatives could also join together to form second-tier associations for the purposes of building capacity, liquidity management and refinancing. Second-tier associations play a useful monitoring role (Branch, 2005). An example second-tier in Kenya is Kenya Union of Savings and Credit Co-operatives (KUSSCO).

The ideas and values, central to how credit unions work were developed in the 19th century. In Britain pioneers of credit unions included Robert Owen. In Germany Herman Schulze-Delitzsch who was an innovator led the birth of credit union movement while in North America Alphonse Desjardin mapped his vision of cooperative credit (Association of British Credit Unions Limited, 2016). The World Council of Credit Unions (WOCCU) estimates that in 2013, there were 56,904 credit unions operating in 103 countries. They had total assets of \$1,732.9 billion and a membership of 207.9 million (McKillop & Wilson, 2015). Within this international system of credit unions, there are credit unions which have just a handful of members, provide basic savings and loans products and are run and organized exclusively by volunteers. At the other end of the

spectrum there are credit unions which are full-service financial providers, are staffed by paid employees, have hundreds of thousands of members and manage billions of dollars in assets (McKillop & Wilson, 2015).

In Ireland, over 70% of the population belongs to a credit union. In America and Canada the figure is around 43%. Credit unions are also growing fast in Eastern Europe, parts of South America, Africa and the Far East (Association of British Credit Unions Limited, 2016). At national-level credit unions in the EU do provide mortgage lending services to their members. This occurs within strict loan policies which encompasses rules for the assessment of a borrowers' credit worthiness, loan portfolio diversification, maximum loan sizes per product type and so on. While these restrictions limit a credit union's ability to provide mortgages, they also ensure safe lending practices (Grace, 2009).

Credit unions in Central and Eastern European Countries (CEE) countries grew till the beginning of the World War II. After World War II, during communists' time, they lost the original features or were just liquidated. The re-birth came with political and economic changes. In CEE countries credit unions were important for marginal groups who could not be served by banks or lived in rural areas, where there was limited access to financial services. Demand for such type of services continues to grow, along with the growth of the market share of credit unions (Iwanicz-Drozdzowska, Kaupelyte, Christova-Balkanska & Chovancova, 2016).

In Kenya, SACCOs represent a crucial avenue for access to financial services for people of various walks of life. This includes teachers, farmers, civil servants, as well as acting as an investment vehicle in the case of public service vehicles SACCOs. According to SASRA (2011) the total assets in Kenya's SACCO sector increased to KES 248 billion from KSHS 216 billion in 2010. Currently, the sector is the largest in Africa and accounts for 60 per cent of the continent's savings, loan and assets respectively (SASRA, 2011). Therefore the successful management of these SACCOs is important not just to the economy, but to the SACCO movement in Africa as a whole.

According to the Financial Services Regulatory Authority (Swaziland) (FRSA) (2013)'s guidance notes on management of SACCOs, liquidity refers to the ability to fund at reasonable cost all contractual obligations of a SACCO, notably, savings and deposit withdrawals, external borrowing repayments, member loan demands and operating expenses (FSRA, 2013). Liquid assets are assets that can easily be converted into cash without suffering a penalty or loss. Furthermore, liquidity management involves a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks to minimize the risk that savers will be unable to access their deposits in the moments they demand them (Biety, 2009).

The tools that are used in liquidity management can be classified according to whether they involve management of balance sheet ratios, management of actual cash flows or whether they involve management of the actual hard currency in the SACCO's possession (vault cash planning). As explained by Bald (2007)'s guidelines on treasury management for SACCOs balance sheet ratios are static balance sheet measures, usually expressed as a ratio between certain assets and liabilities. For SACCOs, vault cash (physical bills and coins) is a very important part of liquidity management more than in large commercial banks, where an ever increasing share of transactions occurs by non-cash means. In a SACCO, loan disbursements and repayments as well as deposit transactions are largely executed in physical currency. This means that most uses of liquidity and most contributions to liquidity pass through the vault.

Cash is critical when it comes to the financial management of an organization. To manage cash flow, three issues are important; cash outflow, cash inflow and policies that guide cash flow. Cash flow management could as well be looked at as assurance of future liquidity through deriving a detailed estimate of the size and timing of future cash inflows and outflows (Bald, 2007). Effective cash flow management is essential to the survival of the business. A miscalculation of availability of cash when needed (for example, payroll or taxes) may very suddenly make an organization such as a SACCO to be out of business (Reider & Heyler, 2003).

Running capital for a SACCO can come from four sources. These include a raise in equity in which the members may make more contribution to the organization through purchase of shares; borrowing in which the organization can raise money from other financial institutions; conversion of assets to cash in which idle or unneeded facilities or equipment are sold or there is reduction of excess inventory, or collection of accounts receivable is done. Finally the SACCO may reinvest profits that have resulted from cash collections (Reider & Heyler, 2003).

The capacity of a SACCO to provide its members with financial services is closely connected to its capacity to manage its liquidity in an efficient and prudent manner. Proper management of a SACCO's liquidity enables its members to access their savings, get loans and overdrafts as well as any other financial services a SACCO member may require from their SACCO in a timely manner. A study carried out on deposit taking SACCOs in Nairobi by Song'e (2015) found that liquidity, funding liquidity risks, operational efficiency, quick ratio and size influences the financial performance of deposit taking SACCOs which is a contributor to institutional efficiency. In addition, SACCOs' operational efficiency was further influenced by putting in place qualified and skilled personnel, enough funds and installing good control measures. This study sought to

determine how liquidity management policies contribute to the operational efficiency of SACCOs in Kenya with a particular focus in Nyandarua County. The study will test the null hypothesis thus;

H₀₁: Liquidity Management Policies have no significant Influence on the Operational Efficiency of SACCOS in Nyandarua County, Kenya.

II. Literature Review

In business practices, operational efficiency is the ratio between the input to run a business operation and the output gained from the business. Improving operational efficiency leads to improvement of output to input ratio (Beal, 2015). In order to remain competitive and to grow, businesses including SACCOs must boost their operational efficiency especially where there is shortage of funds (Martin, 2007). SACCOs operate in a complex and competitive business environment (Song'e, 2015). For SACCOs to survive in the market, performance is critical so as to attract customers. Through efficient management SACCOs will be able to meet their operational obligations that could translate to satisfied stakeholders and subsequent profitability (Adebayo, David & Samuel, 2011). This study was guided by two theories; liquidity preference and anticipated income theory. According to preference liquidity theory Keynes (1936) argued that people hold money for three different motives, transaction, precaution and speculative motives. For anticipated income theory, Ngwu (2006) postulates that liquidity can be estimated and met if scheduled payments are based on the income of the borrowers

Liquidity management policies in a business organization are a strong determinant of whether or not the business venture is managed in a way that is profitable, as well as whether or not the management is in control of the risks that the business venture engages in, while pursuing profits. Comprehensive written policies, procedures, and risk limits form the basis of liquidity risk management programs (Federal Deposit Insurance Corporation, 2005).

All financial institutions should have board approved liquidity management policies and procedures specifically tailored for their institution (Federal Deposit Insurance Corporation, 2005). A savings institution should have a formal liquidity policy, developed and written by the officials with the assistance of management. The policy should be reviewed and revised as needed, no less than annually. It should specifically state who is responsible for liquidity management; what is the general methodology of liquidity management and how will liquidity be monitored:- that is how liquidity management tools will be used. Other issues should be the time frames to be used in cash flow analysis, the level of detail, and the intervals at which the cash flow tools used are to be updated. The policy should also stipulate the level of risk that the institution is prepared to take in optimizing vault cash to enhance profitability. It should also essentially establish minimums and maximums for total cash assets kept on-site; how often decisions about liquidity should be reviewed, and assumptions used to develop the cash flow budget, and the minimum cash requirement as described in daily cash forecasting, and any of the established ratio targets (Cayman Island Monetary Authority, 2002; Biety, 2002).

The policy should stipulate the signatory authority limits of the liquidity manager and should show when excess cash should be deposited at another institution. The policy should spell the authority of the liquidity manager including the limits; for example, another signature should be required for unusually large transactions. If liquid funds are not invested in another financial institution or other type of investment, then there should be very specific policies on how excess funds are to be handled, such as who has access to them and where they are to be kept: which assets are considered to be liquid; established limits for the maximum amount to be invested in any one bank, to limit exposure to a bank failure; who may access or establish a line of credit for short-term liquidity needs. What are acceptable reasons or scenarios for accessing the line of credit (Biety, 2002; Cayman Island Monetary Authority, 2002).

One major policy is Liquidity Risk Management policy. A financial institution is responsible for the sound management of liquidity risk. A bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources. Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should take prompt action if a bank is deficient in either area in order to protect depositors and to limit potential damage to the financial system.

In the context of SACCOs, Bald (2007) explains that risk taking is at the heart of banking and microfinance. It is the conscious engagement in risks that constitutes the economic value of financial intermediation. SACCOs convert immediately available savings deposits into loans with longer maturities (maturity transformation). Individual savings deposits are also typically much smaller than an average loan, requiring multiple deposits to fund a single loan (size transformation) (Bald, 2007)

SACCOs convert savings deposits with an absolute expectation of safety and repayment into credit-risky loans to members (credit risk transformation). And finally, the loans a SACCO makes typically carry a fixed interest rate for their entire term, while the interest on savings deposits and - more importantly - on any additional borrowings from banks or microfinance support programs is variable and can be adjusted at any time according to changes in market interest rates (interest rate risk transformation). All of these financial transformations are risky. The key to successful treasury management is not to entirely avoid the risks, but to properly balance the risks against the rewards from potential profits (Bald, 2007)

At least annually, boards should review and approve appropriate liquidity policies. Written policies are important for defining the scope of the liquidity risk management program and ensuring that sufficient resources are devoted to liquidity management, liquidity risk management is incorporated into the institution's overall risk management process, and that management and the board share an understanding of strategic decisions regarding liquidity (Federal Deposit Insurance Corporation, 2005). This study intends to establish whether SACCOs in Nyandarua got liquidity management guiding policies that guide their day to day operations.

III. Research Methodology

Descriptive research design was adopted in this study where primary data was collected using a questionnaire and secondary data through record survey sheet. The sample size was 45 respondents from a target population of 183 respondents who comprised of chairmen, managers and credit officers of 61 SACCOs. To determine the sample size, stratified random sampling technique was used. SPSS computer program was used to analysis the data. Both descriptive and inferential data analysis tools were used. In inferential data analysis; correlation, regression and ANOVA analysis were used.

IV. Results And Discussion

The first level of data analysis was descriptive data analysis and the results are as summarized in table 1 below. The respondents were asked there were well known liquidity tolerance levels in the SACCO. Majority (53.1%) of the respondents disagreed with a mean value of 2.98 on a 1-5 likert scale. This implies that majority of the SACCOs do not have a well known liquidity risk tolerance levels. Risk tolerance is the amount of uncertainty an organization is prepared to accept in total or more narrowly within a certain business unit, a particular risk category or for a specific initiative. According to Crickette, Demian, Fox, Hach, Makomski, Mazumdar and McGuire (2010) risk appetite and tolerance levels are communicated and enforced through various means that include policy, spending authorization levels, value statements and incentive compensation at different levels of the organization. This means it is important for SACCOs to have a policy that would guide their liquidity preferences.

On whether the SACCO had failed to meet their financial obligations to outsiders at least once in the past 6 months, majority (55.3%) respondents agreed with a mean value is 2.98. This implies that most of the SACCOs had failed to meet financial obligations to outsiders at least once within six months and that there is a need for a policy that would guide the way SACCOs deal with outsiders. According to a study by Filbeck and Kruger (2005) maintaining liquidity on daily basis is very essential for smooth operations and ensures that an organization runs smoothly and meets its financial obligations to outsiders as and when they fall due. This suggests that meeting financial obligations to outsiders is a crucial part required in managing working capital of a SACCO in order to meet its financial obligations to outsiders on time.

On liquidity levels, the respondents were also asked whether the SACCO maintains adequate liquidity levels as a matter of policy. Majority (54.8%) of the respondents disagreed with a mean value was 3.24. This implies that to most SACCOs they do not maintain liquidity based on a policy guidelines. According to Dirsmith (2004) organizations need to maintain proper books and records for all transactions and dealings of the organization. These records and dealings must be complete and accurate and in line with the policies of the organization. This is because internal controls are fundamental to all organizations because they provide a mechanism to align organizational goals and aspirations with employee's capabilities, activities and performance of the SACCOs.

On whether SACCOs make provisions to cushions their liquid assets, majority respondents (56.8%) disagreed with a mean value of 2.93. This implies that to a significant extent SACCOs do not make provisions to cushions their liquid assets. According to Bank for International Settlement (2008), a financial institution is responsible for the sound management of liquidity risk and should thus establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources.

The respondents were asked to give opinion on whether the management was aware on the liquidity risks that the SACCOs face. Majority (59.5%) agreed with a mean value of 2.62. This implies that the management was alert on policy issues that they face that are tangential to management of liquidity in their

SACCOs. Liquidity management entails a combination of many aspects like cash management and internal controls in an organization and for an organization to be able to manage its working capital it should be able to manage its cash in an efficient manner to avoid liquidity risk. By managing cash, an organization shall be managing its liquidity, which has a direct impact on the organization's profitability and financial performance in general (Deloof, 2003). This, therefore, suggests that the management of a SACCO should be aware of liquidity risk and know how to manage the risk. This is corroborated by a study by Schmid, Sabato and Aebi (2011) in a study that revealed that financial institutions in which the Chief Risk Officer (CRO) directly reports to the board of directors and not to the Chief Executive Officer (CEO) or other corporate entities, exhibited significantly higher stock returns and Return on Equity (ROE) during the crisis. This thus underlines the positive contribution of continuous information of risk on performance of financial institution.

The respondents were also asked to state whether SACCOs had an operational contingency funding plan, Majority (54.7%) disagreed with a mean value of 3.10. This implies that most of SACCOs in the study area do not have a contingency funding plan. This implies that they are vulnerable to sudden changes in their financial situation. It is suggests that there is need to establish a contingency funding plan at the policy level, which is an equal measure to having a plan to cushion the SACCOs in case of unforeseen eventuality on its cash (Bank for International Settlement, 2008).

Public disclosure is a means of instilling discipline in public institutions. The respondents were asked to state whether the SACCOs did public disclosure as a means of instilling discipline. Majority (53.8%) of the respondents disagreed that they did so. The mean value was 2.83. This implies to most of the SACCOs do not do public disclosure. In order to increase the financial health of a financial institution, it should publicly disclose information on a regular basis that enables market participants to make an informed judgment about the soundness of its liquidity risk management framework and liquidity position (Bank for International Settlement, 2008).

Table 1: Liquidity Management Policies

Responses	SA	A	N	D	SD	Mean
This SACCO has well known liquidity risk tolerance levels	14.3	21.4	11.2	33.6	19.5	2.98
In the last six months, the SACCO has failed at least once to meet its financial obligations to outsiders	14.8	40.5	6.7	28.6	9.5	2.98
This SACCO maintains adequate levels of liquidity as a matter of policy	7.1	31.0	7.1	40.5	14.3	3.24
The SACCO make provisions that cushions its liquid assets	16.7	23.8	2.7	42.7	14.1	2.93
Management is aware of liquidity risks that the SACCO faces	21.4	38.1	2.4	33.3	4.8	2.62
The SACCO has an operational contingency funding plan	14.0	25.6	4.7	46.5	9.3	3.10
The SACCO does public disclosure as a measure of contributing to market discipline in the way it handles its cash liquidity	20.9	16.3	8.9	41.5	12.3	2.83

A correlation coefficient statistic that describes the degree of linear association between liquidity management policies and operational efficiency was determined. Table 2 below indicates that there is a positive moderate linear relationship between liquidity management policies and operational efficiency. This relationship has been illustrated by a correlation coefficient of 0.373 at 0.01 significant level. The R-value is 0.373 at p=0.03 which is below 0.05 and thus significant at 2 tailed level. The R value of 0.373 shows a significant relationship that is fairly strong.

Table 2: Correlations between Liquidity Management Policies and Operational Efficiency of SACCOs

		Profitability	Liquidity Management Policies
Profitability	Pearson Correlation	1	0.373**
	Sig. (2 – Tailed)		0.03
	N	45	45
Liquidity Management Policies	Pearson Correlation	0.373***	1
	Sig. (2 – Tailed)	0.03	
	N	45	45

**correlation is significant at 0.01 level (2 – tailed)

Regression Line between Liquidity Management Policies and Operational Efficiency

Regression analysis was conducted to determine the amount of variation in operational efficiency explained by liquidity management policies. The calculated R – value was 0.373. R² value = 0.139 which means that 13.9% of the corresponding variation in profitability can be explained by change in liquidity management policies. The rest 86.1% can be explained by other factors that are not in the model. The results of the analysis are shown in table 3.

Table 3 Model Summary

Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.373 ^a	.139	.117	1.161

a. Predictors: (Constant), Liquidity Management Policies

A one way analysis of variance (ANOVA) whose results formed a basis for tests of significance was used. The ANOVA for the linear model presented in table 4 of liquidity management policies and operational efficiency has an F value = 6.451 which is significant with p-value $p = 0.015 < 0.05$ meaning that the overall model is significant in the prediction of operational efficiency of SACCOs in Kenya. Therefore this study rejects the null hypothesis that liquidity management policies do not have any influence on operational efficiency of SACCOs in Kenya and confirm that indeed that there is a positive and significant influence of liquidity management policies of SACCOs in Kenya

Table 4: ANOVA^a for Liquidity Management Policies

Model1	Sum of Squares	df	Mean Square	F	Sig.
Regression	8.690	1	8.690	6.451	.015 ^b
Residual	53.881	40	1.347		
Total	62.571	41			

a. Dependent Variable: SACCO Operational Efficiency

b. Predictors: (Constant), Liquidity Management Policies

Analysis of regression model coefficients is shown in table 5. From table 5, there is a positive beta coefficient of 0.084 as indicated by the coefficient matrix with a p – value of $0.000 < 0.05$ and a constant of 3.298 with a p- value = $0.004 < 0.05$. Therefore, both the constant and liquidity management policies contribute significantly to the model. Therefore, the model can provide the information needed to predict operational efficiency from liquidity management policies. The regression equation is presented as follows: $Y = 3.298 + 0.084X + \epsilon$; where Y = Operational Efficiency, X is Liquidity Management Policies and ϵ is the error term

Table 5: Regression Coefficients of Liquidity Management Policies and Operational Efficiency

Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.298	1.070		3.083	.004
Liquidity Management Policies	.084	.142	.092	.594	.557

V. Conclusion And Recommendations

The findings of liquidity management policies on operational efficiency in SACCOs in Kenya showed that majority of the SACCOs do not have a well-known liquidity risk tolerance levels and neither do they maintain liquidity based on a policy guidelines. The findings also showed that SACCOs fail to meet their financial obligations to outsiders at least once within six months and thus there is a need for a policy that would guide the way SACCOs deal with outsiders. In addition SACCOs management is alert on policy issues that they face that are tangential to management liquidity in their SACCOs and that they are vulnerable to sudden changes in their financial situation. It is recommended that SACCOs management and directors should develop and publicize liquidity risk tolerance levels that should stipulate contingency funding plan, maintenance of adequate levels and process of meeting financial obligations to outsiders.

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