

**THE EFFECT OF FINANCING STRATEGIES ON THE  
LIQUIDITY OF SAVINGS AND CREDIT CO-OPERATIVES  
SOCIETIES LICENSED BY SACCO SOCIETIES REGULATORY  
AUTHORITY OPERATING IN NAIROBI COUNTY**

**BY**

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## DECLARATION

This Research project has been done by me and has never been submitted for exam in any college, University or any other institute of higher learning.

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## **DEDICATION**

This project is dedicated to my Daughter Ann Wanjiru Kariuki and my husband James Kariuki.

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## **LIST OF ABBREVIATIONS**

|                   |  |
|-------------------|--|
| <b>FSD</b>        | Financial Sector Deepening                               |
| <b>GDP</b>        | Gross Domestic Product                                   |
| <b>KUSCCO</b>     | Kenya Union of Savings and Credit Cooperatives           |
| <b>MoI&amp;ED</b> | Ministry of Industrialization and Enterprise Development |
| <b>SACCOS</b>     | Savings and Credit Co-operatives Societies               |
| <b>SASRA</b>      | Sacco Societies Regulatory Authority                     |

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## ABSTRACT

Savings And Credit Co-operative Societies (SACCOS) are essential institutions as they are able to advance loans at interest rates lower than those charged by other financial institutions. In fact, the core objective of SACCOS is to ensure members empowerment through mobilization of savings and disbursement of credit. In Kenya, SACCOS have mobilized over Kshs.200 billion in savings, accounting for over 30% to National Domestic Saving. However, as financial institution, SACCOS should manage the demand and supply of liquidity in an appropriate manner in order to safely run their business, maintain good relations with the stakeholders and avoid liquidity problems. When firms have problems with liquidity they may defer their payments to creditors which is a harmful for companies and can result in several consequences such as worse credit terms in the future.SACCOS have a high exposure to credit risk as well as operational risks; these debts may lead to collapse of the SACCOS. This study sought to establish the effect of financing strategies on the liquidity of savings and co-operative societies licensed by SASRA. Specifically looking at effect of debt financing, equity financing, members' savings, income source diversification and the operational variable of micro-economic variables. This study employed descriptive survey. Populations of the study included the 34 SACCOS licensed by SASRA in Nairobi County. A census survey of all the 34 SACCOS was carried out. This study collected secondary data from financial statements of the SACCOS involved. Descriptive statistics as well as inferential statistics were carried out. According to the study's results, all the factors were significant in determining SACCOS liquidity. Leverage was found to influence the liquidity of SACCOS licensed by SASRA operating in Nairobi County most. The four independent variables that were studied; leverage, members' savings, diversification, and macro-economic variables explain a substantial 68.7% of liquidity of SACCOS operating in Nairobi County as represented by Coefficient of determination. The study concludes that financial strategies positively and significantly influence the liquidity in SACCOS licensed by SASRA operating in Nairobi County. The study recommended that SACCOS should approve strategy and significant policies related to the management of liquidity risk under both normal and stressed conditions and review and approve these policies frequently as need arise. Also, it was recommended that a structure should be put in place to effectively execute financial strategies and also develop methodologies and policies to determine the level of earmarked liquid assets.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

According to Munyiri (2006), Savings and Credit Co-operative Societies (SACCOS) are able to advance loans at interest rates lower than those charged by other financial providers. In addition, SACCOS have the ability and opportunity to reach clients in areas that are unattractive to banks, such as rural or poor areas (Branch, 2005). This has made SACCOS more attractive to customers, thus deeply entrenching themselves in the financial sectors of many countries (Munyiri, 2006). In fact, the core objective of SACCOS is to ensure members empowerment through mobilization of savings and disbursement of credit (Ofei, 2001). SACCOS have been efficient in achieving this objective. In Kenya, for instance, SACCOS have mobilized over Kshs.200 billion in savings, accounting for over 30% to National Domestic Saving (Co-operative Bank of Kenya, 2010).

Savings mobilization should be backed by adequate institutional capital which ensures permanency, provide cushion to absorb losses and impairment of members' savings (Evans, 2001). The institutional capital, which comprises the core capital and less share capital, is mainly accumulated from appropriation of the surpluses. Therefore, SACCOS should strive to maximize on the earnings to build the institutional capital (Branch & Cifuentes, 2001; Ombado, 2010). This institutional capital ensures the permanence and growth of the SACCOS even in turbulent economic times (Evans, 2001). In fact, it helps the SACCOs to grow and, remain economically and financially viable (Gijssels & Devetere, 2007). Such growth is enhanced by effective financial practices.

According to Siddiqi (2008), as financial institution, SACCOS should manage the demand and supply of liquidity in an appropriate manner in order to safely run their business, maintain good relations with the stakeholders and avoid liquidity problem. The liquidity problems commonly happen because of failures in the management of funds or unfavorable economic conditions which lead to unpredictable liquidity withdrawals by the depositors. Indeed, maintaining a robust liquidity management is very challenging and difficult in a current competitive and open economic system with strong external influences and sensitive market players. The global financial crisis 2007-2008, for example, occurred because of the failures in derivatives markets which impacted the ability of banks to provide liquidity to the third parties (Siddiqi, 2008).

Practically, the SACCOS regularly find the liquidity imbalances between asset and liability side that needs to be equalized because, by nature, SACCOS issue liquid liabilities but invest in illiquid assets (Zhu, 2001). Hence, the ability of SACCOS to assess and manage the demand and supply of liquidity is very imperative to maintain the continuity of banking operations. If a SACCOS fails to balance the gap, liquidity problems might occur followed by some unwillingness exposures such as high interest rate risk, high reserves or capital requirement, and lower SACCOS's reputation.

Garcia-Teruel and Martinez-Solano (2007) warns that when firms have problems with liquidity they may defer their payments to creditors which is a harmful for companies and can result in several consequences such as worse credit terms in the future. Pass and Pike (2004) notes that companies have to strive to gain liquidity and improve cash flows. Strategies which can be adapted within the firm to improve liquidity and cash flows concerns the management of working capital and cash management, areas which are usually neglected in times of favorable business conditions. Kim, Mauer and Sherman (2008) highlight that companies start to build liquidity to meet favorable future investment prospects. In fact, Almeida,

Campello and Weisbach (2004) suggested a connection between financial constraints and firms' liquidity demand exists.

Until recently, empirical research on corporate liquidity management has (Opler et al., 1999; Almeida et al., 2004; Faulkender & Wang, 2006) exclusively focused on cash as a source of liquidity in the presence of capital market frictions. The well-known result from this literature is that firms with external financing constraints save more cash out of their cash flows, especially if investment opportunities are likely to arise when cash flows are low (Acharya, Almeida & Campello, 2007). While holding cash provides financial flexibility, managers might be tempted to use their firm's cash reserves opportunistically and at the expense of the firm's shareholders rather than preserving cash holdings until the arrival of valuable projects.

### **1.1.1 Financing Strategies**

It has long been stated that financing is a major constraint in microfinance. It slows the growth and expansionist activities of microfinance innovation in many developing economies. This is despite the recognition of the fact that microfinance sector has contributed immensely to the creation of sustainable livelihood in poor societies, and microenterprise development (Biekpe, 2009). According to Carlos and Carlos, (2001) the growth rate of microfinance initiative has been high in many countries, but financing levels in the industry have not matched this growth. This is particularly of concern when we consider the decreased availability of donor traditional sources of finance, and the uncertain capacity of MFIs to access alternative funds

According to Olive (2001), financing strategy is the way in which an organization obtains monitors and utilizes capital resources for its growth. According to De Sousa-Shields (2005) SACCOs require access to financing far beyond that available from traditional sources of

development financing. Many MFIs are now adopting financing strategies which include savings, domestic and international debt, and equity investment. Biekpe and Kiweu, (2009) notes that commercial sources of financing (debt financing and equity financing) play great role in relaxing the financing constraints facing SACCOS. Commercial finance in SACCOS is arguably a viable alternative for providing massive long-term resources for growth hence widening and sustaining liquidity.

### **1.1.2 Liquidity**

According to Goodhart (2008), liquidity in finance is generally shorthand for either trading (market) liquidity or funding liquidity. The International Monetary Fund (2008) describes funding liquidity as the ability of a solvent institution to make agreed-upon payments in a timely fashion. The Basel Committee on Banking Supervision (2008) defines funding liquidity as the ability to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses. Funding liquidity is therefore asset's ability to be (quickly) converted into cash or another asset without a loss of value. An asset is therefore said to be liquid if it can be easily bought or sold. The notion of liquidity in the economic literature relates to the ability of an economic agent to exchange existing wealth for goods and services or for other assets (Williamson, 2008). In this definition, two issues should be noted. First, liquidity can be understood in terms of flows (as opposed to stocks), in other words, it is a flow concept. Second, liquidity refers to the ability of realizing these flows. Inability of doing so would render the financial entity illiquid. Liquidity can also be looked at in terms of access of funding.

However, references to funding liquidity have also been made from the point of view of traders (Brunnemeier & Pedersen, 2007) or investors (Strahan, 2008), where funding liquidity relates to their ability to raise funding (capital or cash) in short notice (Drehmann &

Nikolaou, 2008). This can be clearly seen in practice, where funding liquidity, being a flow concept, can be understood in terms of a budget constraint. Namely, an entity is liquid as long as inflows are bigger or at least equal to outflows. This can hold for firms, banks, investors and traders. Liquidity is measured by liquidity ratio (Kim et al., 1998; John, 1993), which is the ratio of cash plus marketable securities to the book value of assets. This ratio signifies the proportion of the firm's total assets that are highly liquid, which in turn reflects how well it manages its liquidity position on a period-to-period basis.

### **1.1.3 Effect of Financing Strategies on Liquidity**

As the micro finance industry grows in size, the need for increased financing coupled with unpredictability of donor funds trigger the issue of building a sustainable SACCOs that stand on their own leg (Dhakal, 2004). SACCO should be able to cover its operating and other costs from generated revenue and provide for profit. It is an indicator which shows how the SACCOs can run independent (free) of subsidies (Basu & Woller, 2004). Meyer (2002) also stated that the low repayment rate or un-materialization of funds promised by donors or governments may lead to low liquidity in SACCOs. As a result, SACCOs have adopted financing strategies that serve increasing number of poor with repayment rates positively comparable with the performance of many commercial banks. These strategies have helped many SACCOs in achieving a reasonable level of liquidity, and have even produced profits without government subsidies and support from donor (Hulme & Mosley, 2003).

According to Basu and Woller (2005), only established SACCOS are able to access debt financing (bank loans) and these loans are still at relatively high costs which greatly influences liquidity of the SACCOS. To improve on liquidity levels, SACCOS have incorporated the provision of deposit services in their operations. Appropriately managing the deposit service and micro and small savings help SACCOs to achieve sustainable liquidity

through generating their own internal flow of funds that in turn reduce their dependency on external sources (Morduch & Haley, 2002). Rogaly (2006) indicates that some features of savings make SACCOS able to meet their financial obligation as a result of enhanced liquidity.

Littlefield and Rosenberg (2004) states that since the poor are generally excluded from the financial services sector of the economy, SACCOS have emerged to address this market failure. By addressing this gap in the market in a financially sustainable manner, an SACCOS must access equity funds to finance their operations, allowing them to dramatically increase the number of poor people they can reach (Otero, 2003). Financing strategies helps the SACCOS to adequately finance their operations and therefore offers the potential for a self-propelling cycle of sustainability and massive growth. According to Rhyne and Otero (2006), various financing options of SACCOS may attract increased commercial funds, which may contribute enhanced liquidity.

#### **1.1.4 SACCOS Licensed by SASRA**

Sacco Societies form a significant part of the larger Cooperative sector in Kenya. The Ministry of Industrialization and Enterprise Development (MoI&ED) is responsible for the development of the Cooperative sector through policy and legal framework to facilitate attainment of the national social-economic goals in Kenya. SACCOS comprise over 50% of all cooperatives in Kenya and as financial institutions they play a critical role of financial intermediation in Kenya's financial landscape focusing mostly on personal development, small and micro enterprise sector of the economy. According to the Supervision Report (2010) the sub sector comprises of large Sacco's, some of which have a total asset base of over Kshs. 15 billion and the very small SACCOS having asset base of under Kshs. 10 million and are well spread across the country from the large cities to the rural Kenya. Unlike



other commercial establishments, co-operatives are guided by the cooperative philosophy which is based on seven Co-operative Principles formulated by International Co-operative Alliance which are: voluntary and open membership, democratic member control, member economic participation, autonomy and individual education, training and information, corporation among co-operatives and finally concern for the community (Hans, 1976)

The Sacco Societies Regulatory Authority (SASRA) is a semi-autonomous Government Agency under the Ministry of Industrialization and Enterprise Development .It is a creation of the Sacco Societies Act, 2008. The Authority's establishment falls within the broad Government of Kenya's reform process in the financial sector which has the dual objectives of protecting the interests of Sacco members and ensuring public confidence towards the Sacco subsector. This ultimately will spur economic growth through mobilization of domestic savings, deepening financial access and affordable credit to Sacco members (Ademba, 2010).By January 2014, the authority had licensed 135 SACCOs' to continue with the deposit taking activities.

Kim, Mauer and Sherman (1998) found that companies start to build liquidity to meet favorable future investment prospective. It is also suggested in the literature that a connection between financial constraints and firms' liquidity demand exists. Liquidity has been a major problem facing SACCOS in Kenya and has led to collapsing and poor performances by SACCOS'.Inorder to improve on their performances SACCOS have employed various financing strategies which include Equity financing, Debt financing and income source diversifications where they are investing in other income generating activities.

## **1.2 Research Problem**

Corporate liquidity is a core business worry across all the sectors of economy since the firms has got its financial obligations to sustain its operations throughout the year. There have been

challenges of managing liquidity by SACCOS leading to insufficient loan portfolio (Allen & Maghimbi, 2009) as well as low profitability (Kiwalabye, 2008). According to Kyazze (2010) these challenges resulting into some SACCOS failing to repay loans lent to them. This therefore depicts the importance of liquidity by SACCOS. Such trends if not checked, it may lead to depletion of SACCOS' funds and collapse of SACCOS. Debts offer a source of finance to corporates across the spectra. However, its efficient applicability in business performance should be carefully and properly managed to ensure that it does not plunge SACCOS in a vicious circle of borrowing debts.

The debt strategy of managing liquidity remains a mystery in upholding the financial management integrity in the lifespan of the organisations. As much SACCOS may consider debt financing to increase their liquidity, if not well managed, these debts may lead to collapse of the SACCOS. Further, as noted by Cuevas and Fischer (2006), SACCOS has a high exposure to credit risk (the risk that borrowers are unable to pay or risk of delayed payments) as well as operational risks (the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events) (Basel Committee report, 2001). This further worsens the liquidity position of the SACCOS and therefore calls for strategies that would enhance the liquidity position of the SACCOS to be able to meet their financial obligations.

In Kenya SACCOS are an important player in the provision of financial services and have deeper and extensive outreach than any other type of financial institution (ICA, 2002) and they contributes 45% of the country's GDP. Previously lack of funding has been identified as a main challenge to SACCOS. KUSCCO (2009) indicates that many SACCOS are unable to meet the demands of their clients for loans and withdrawal of savings. A recent study by FSD (2009) revealed that SACCOS are facing severe liquidity problems and majorities are unable

to meet financial obligations. Failure to address this situation, many Kenyans may experience losses as a result of collapse of many SACCOS.

Several studies have been conducted in SACCOS; Okundi (2011) did a study to investigate financial challenges facing savings and credit co-operative societies in Kenya taking a case of SACCOS in Nairobi. Mwangi (2011) did a study to establish the role of Savings and Credit Cooperatives Societies (SACCOS) in financial intermediation in Nairobi County. Further, Owino (2011) conducted a study on the relationship between liquidity and leverage of companies quoted at the NSE. However, despite having noted that liquidity problems threaten the survival of SACCOS in Kenya and the importance of SACCOS in Kenya no study known to the researcher has been done to investigate the influence of financing strategies on liquidity in SACCOS. The study therefore sought to answer the following research question; what is the effect of financing strategies on the liquidity of savings and co-operative societies licensed by SASRA?

### **1.3 Objective of the Study**

To establish the effect of financing strategies on the liquidity of SACCOS licensed by SASRA.

### **1.4 Value of the Study**

The findings of this study would enhance the efforts of government regulators in coming up with regulations that would govern the operations of SACCOS to ensure that they remain viable and help SACCOS establish the best financing option.

Financial strategies and liquidity management are important aspects of business operations which must be undertaken conscientiously to ensure profitability and sustainability of businesses growth while at the same time achieving an optimum gearing. The study would

be useful to corporate managers in the SACCOS appreciating the optimal use of financial strategies to enhance liquidity of the SACCOS. With this respect the study would offer a guideline that would act as corrective benchmark in dealing with financial strategies, hence understanding the benefits or otherwise of adopting such strategies.

The study would also be important to scholars and academicians. The study would contribute to the pool of knowledge in financial strategies and liquidity and therefore form an important addition to the reference materials. Further, the study would point out on research gaps that future scholars should seek to fill.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents review of past literature in financing strategies and liquidity. It therefore presents a theoretical review, literature review on determinants of liquidity of SACCOS, an empirical review and a summary of literature review.

#### **2.2 Theoretical Review**

This section presents the theoretical foundation of the study. Therefore, this study is base on the following theories.

##### **2.2.1 Stewardship Theory**

According to Davis, Schoorman, and Donaldson (1997), a steward protects and maximizes shareholders wealth through firm performance, because by so doing, the steward's utility functions are maximized. In this perspective, stewards are managers working to protect and make profits for the shareholders. Therefore, stewardship theory emphasizes on the role of management being as stewards, integrating their goals as part of the organization (Davis et al., 1997). The stewardship perspective suggests that stewards are satisfied and motivated when organizational success is attained. The theory recognizes the importance of governance structures that empower the steward and offers maximum autonomy built on trust (Donaldson & Davis, 1991). It stresses on the position of employee to act more autonomously so that the shareholders' returns are maximized. Indeed, this can minimize the costs aimed at monitoring and controlling employee behaviour (Davis et al., 1997). Daily et al. (2003) assert that in order to protect their reputations as decision makers in organizations, managers are inclined

to operate the firm to maximize financial performance as well as shareholders' profits. In this sense, the theory recognizes the contribution of human resource in ensuring success of the business.

The theory therefore supports the decision making role of the top management to ensure SACCOS adopt the best financing strategies and optimally utilize the resources within the organization to enhance liquidity for the SACCOS.

### **2.2.2 Agency Theory**

Agency theory addresses the relationship where in a contract 'one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent' (Jensen &Meckling, 1976). This happens because of the separation of ownership and control, when the owner of the company or the board of directors (the 'principals') have to employ managers ('agents') to run the business and need to monitor their performance to ensure they act in the owner's interest. This theory is based on the assumption that the interests of the agent and principal diverge.

However, the principal may limit the divergence from his interests by establishing appropriate interests for the agents. An agent must be motivated and monitored to create wealth; this arrangement portrays agents as potentially fraudulent and principals as policemen enforcing the law (Arthurs & Busenitz, 2003). The managers are rewarded financially for maximizing shareholder interests. Such schemes typically include plans whereby senior executives obtain shares, perhaps at a reduced price, thus aligning financial interests of executives with those of shareholders (Jensen & Meckling, 1976). Other similar schemes tie executive compensation and levels of benefits to shareholders returns and have part of executive compensation deferred to the future to reward long-run value maximization of the

corporation and deter short-run executive action which harms corporate value. This is aimed at reducing agency loss (Eisenhardt, 1989).

This theory informs the current study in that, the management of the SACCOS acts as the agent out to maximize owner's wealth (members/stakeholders) while at the same time enhancing their utility. Better performance of the SACCOS translates to better pays for the management and employees of the SACCOS. In fact, since the executive managers are shareholders, their financial interests are aligned to those of shareholders. Further, this performance also translates to higher dividend payouts to stakeholders. This relationship indicates that the management and the employees in a SACCOS thus become the agents and the stakeholders the principles. It is therefore in their line of duty the SACCOS management would formulate financial strategies effective in enhancing liquidity and therefore enhances performances.

### **2.2.3 Stakeholder Theory**

Stakeholder theorists suggest that managers have a network of relationships to serve, which include the suppliers, employees and business partners. Sundaram and Inkpen (2004) contend that stakeholder theory attempts to address the group of stakeholder deserving and requiring management's attention. Donaldson and Preston (1995) suggest that all groups participate in a business to obtain benefits. Nevertheless, Clarkson (1995) concludes that the firm is a system, where there are stakeholders and the purpose of the organization is to create wealth for its stakeholders. Freeman (1984) reveals that the network of relationships with many groups can affect decision making processes as stakeholder theory is concerned with the nature of these relationships in terms of both processes and outcomes for the firm and its stakeholders. Donaldson and Preston (1995) argue that this theory focuses on managerial

decision making and interests of all. Abdullah and Valentine (2009) defines stakeholder as any group or individual who can affect or is affected by the achievement of the organization's objectives. Stakeholders have intrinsic value, and no set of interests is assumed to dominate the others.

This theory is relevant in this study in that, it is expected that the stakeholders will support any strategy that leaves the organization better off. Therefore, in realization of the awkward position low liquidity would leave a business, stakeholders would support financial strategies in SACCOS to promote business running.

#### **2.2.4 Complexity Theory**

Complexity theory, which is the study of nonlinear dynamic systems promises to be a useful conceptual framework that reconciles the essential unpredictability of industries with the emergence of distinctive patterns. Despite the fact that the theory was originally developed in the context of physical and biological sciences, today it has found applications in social, ecological and economic systems which also tend to be characterized by nonlinear relationships and complex interactions that evolve dynamically over time (Kiel & Elliott, 1996).

During the 1990s, there was an explosion of interest in complexity as it relates to organizations and strategy. The theory suggests that simple deterministic functions can give rise to highly complex and often unpredictable behavior. Thus, applying this theory in strategic planning presupposes flexibility on the part of an organization. Any strategic planning should be done in such a manner that it accommodates the "unexpected" ensuring that the organization is sustainable.



Therefore, the SACCOS should always devise strategies to ensure that liquidity is maintained at safe level for business sustainability. This is more so important in a business environment that is dynamic with many unforeseen events.

## **2.3 Determinants of Liquidity of SACCOS**

According to Diamond and Rajan (2001), holding sufficient liquidity is necessary to insure against liquidity risk. As loans are relatively illiquid, large and unexpected deposit withdrawals can lead to insolvency as it may be too costly or not possible to raise liquidity on short notice, due to capital market imperfections. Instead of self-insuring, SACCOS could resort to other forms of financing, such as accessing interbank markets, central bank liquidity windows, or external credit lines. However, asymmetric information may lead to coordination failures on the interbank market, and external credit lines may freeze, so that solvent but illiquid SACCOS would still fail, absent a Lender of Last Resort (LOLR) (Rochet & Vives, 2004). Thus SACCOS hold a buffer of liquid assets as self-insurance, equating the marginal benefit of holding liquid assets to the marginal cost of alternative investments. However; there are various determinants of liquidity for SACCOS.

### **2.3.1 Financing Strategy**

The adequacy of a financial institutions' liquidity varies; in the same institution, at different times, similar liquidity positions may be adequate or inadequate depending on anticipated or unexpected funding needs. Determining a institution's liquidity adequacy requires an analysis of the current liquidity position, present and anticipated asset quality, present and future earnings capacity, historical funding requirements, anticipated future funding needs, and options for reducing funding needs or obtaining additional funds. To provide funds to satisfy liquidity needs, firms may consider debt financing, equity financing, savings and other income sources diversification.

In Debt Financing, according to Myers (2000), the law allows financial holding companies to provide equity financing to nonfinancial firms for up to ten years. Compared to private firms, publicly listed corporations supposedly have better access to debt financing as contractual enforcements (bond covenants) should somewhat mitigate agency and information asymmetry problems in public debt markets (Smith & Warner, 1979). While this is plausible in the case of developed markets, it is less apparent in the context of emerging markets where both public equity and debt markets are less developed.

The role of financial institutions equity capital also plays a part in the liquidity provision function of financial institutions. Diamond and Rajan (2001) suggest equity capital can act as a buffer to protect depositors in times of distress. However, holding excessive equity capital can reduce liquidity creation and the flow of credit. Financial institutions facilitate their operations with more than retail deposits and equity capital, most notably with uninsured wholesale deposits and subordinated notes and debentures.

SACCOS are voluntary associations where by members regularly pool their savings, and subsequently members may obtain loans which they may use for different purposes. Generally, the idea behind establishment of SACCOS is to promote savings and make credits available to the members. SACCOS are the important micro- financing institutions for mobilization of financial resources for various development activities, particularly in rural areas. Appropriately managing the deposit service and micro and small savings help SACCOS maintain their liquidity through generating their own internal flow of funds that in turn reduce their dependency on external sources (Morduch & Haley, 2002). Savings mobilization should be backed by adequate institutional capital which ensures permanency, provide cushion to absorb losses and impairment of members' savings (Evans, 2001). Savings mobilization is not an end in itself; it plays an important role in sustaining liquidity in SACCOS.

It is generally believed that diversification by a firm reduces risk, just as diversification of investments by an individual does. In both cases, however, whether the desired risk reduction effect is achieved does of course depend on the correlation between the different activities or lines of business (in the case of the firms), and on the correlation between the prices of the different investments (in the case of the investing individual). SACCOS, like other firms, generally seek to reduce their risks by diversifying across various lines of business, although there is usually some degree of specialization. Traditionally SACCOS have been thought of as firms which take deposits in terms of savings and make loans, and profit by the difference between the costs of the former and the earnings from the latter activities (Stiroh, 2004). SACCOS can differ markedly in their sources of income. Some focus on business lending, some on household lending, and some on fee-earning activities. Increasingly, however, most SACCOS are diversifying into fee-earning activities. Such diversification is either justified (by the SACCOS) or welcomed (by commentators), or both, as reducing the SACCOS's exposure to risk. Diversification across various sources of earnings is welcomed for, it is claimed that diversification reduces risk (Bosch & Kick, 2009).

According to Stiroh (2004), diversification is usually associated with a change in the characteristics of the company's product line and/or market. A business which accepts diversification as a part of its planned approach to growth undertakes the task of continually weighing and comparing the advantages of these four alternatives, selecting first one combination and then another, depending on the particular circumstances in long-range development planning (Shawn, 2002). DeYoung and Roland (2001) found that a shift toward fee-based activities is associated with increased revenue volatility and a higher degree of total leverage, both of which imply greater earnings volatility for SACCOS. In order to meet the challenges of other financial institutions, SACCOS have started to restructure their business. According to Oyoo (2002), before liberalization in 1997, SACCOS were controlled by the

government. After deregulation, SACCOS have started to enter in the financial market with almost daily innovative products/services to capture maximum market share and then earn maximum profits. The SACCOS have started to diversify their activities into fee-based activities (non-interest income) that earn fee rather interest (Stiroh, 2004).

### **2.3.2 Opportunity and Shock Funding**

Diamond and Rajan (2001) note that while financial institutions provide liquidity to borrowers, the loans themselves are relatively illiquid assets for financial institutions. Subsequently, when financial institutions require liquidity, they could sell the loans (e.g., sell and securitize mortgages to create mortgage-backed securities) or use the loans as collateral (e.g., mortgages serve as collateral for mortgage-backed bonds issued by the financial institutions) (Bhattacharya & Thakor, 2003; Diamond and Rajan, 2001). Such sales, however, become more difficult when market liquidity becomes scarce. Thus, Diamond and Rajan (2001) also note that financial institutions can ration credit if future liquidity needs are likely to be high. Diamond and Rajan (2001) suggest financial institutions can be fragile because they must provide liquidity to depositors on demand and because they hold illiquid loans. Further, demands by depositors can occur at undesirable times, i.e., when loan payments are uncertain and when there are negative aggregate liquidity shocks.

The cost of holding liquid assets (with low returns compared with other types of investments) is compared to the benefits of reducing risks of “running out” (Baltensperger, 1980; Santomero, 1984). These models predict that the size of liquidity buffers should reflect the opportunity cost of holding liquid assets rather than loans. It should also relate to the distribution of liquidity shocks that the SACCOS may face, and in particular be positively related to the volatility of the funding basis as well as the cost of raising additional funds.

### **2.3.3 Macro-Economic Factors**

If capital markets are imperfect, the demand for liquidity should be countercyclical, as SACCOS and other financial institutions would hoard liquid assets during recessions and offload them in good times given more opportunities to lend. This suggests that liquidity buffers would be negatively related to measures of the output gap or real GDP growth, credit cycle, and policy interest rates. The counter-cyclicality of liquidity buffers limits the effectiveness of monetary policy in trying to inject liquidity to stimulate the economy in a recession: liquidity buffers would remain stable or increase but credit would not necessarily pick-up. Moreover, financial frictions in terms of capital market imperfections should be expected to vary with structural factors such as the degree of financial development and the quality of financial institutions (Aspach, Nier &Tiesset, 2005).

### **2.3.4 SACCOS Characteristics**

According to Bunda and Desquilbet (2008), SACCOS' liquidity is assumed to be dependent on individual behavior of the SACCOS, their market and macroeconomic environment and the exchange rate regime. Other specific characteristics includes total assets as a measure of the size of the SACCOS, the ratio of equity to assets as a measure of capital adequacy, the presence of prudential regulation, which means the obligation for SACCOS to be liquid enough, the lending interest rate as a measure of lending profitability, the share of public expenditures on gross domestic product as a measure of supply of relatively liquid assets, the rate of inflation, which increases the vulnerability of SACCOS to nominal values of loans provided to customers, the realization of a financial crisis, which could be caused by poor SACCOS liquidity.

## **2.4 Empirical Review**

This is the review of studies done by various authors on the effects of financing strategies on liquidity. The study explored both international studies and local studies.

### **2.4.1 International Evidence**

Various empirical studies have been done in relation to financing strategies and liquidity of organizations. Alexandra (2006) in his study ‘the effects of wholesale lending to SACCOS in Uganda’ found that SACCOS accessed external funding with the believe that the funds will help ease cash flow management, generate more institutional income, increase membership size, promote training and capacity building and therefore improve their liquidity positions. The study found out that with the borrowed capital, SACCOS were able to increase their loan portfolios thus generating more income from interest earned on the loans. In addition, with the increased capital, SACCOS were able to expand their outreach thus attracting new members and retaining the current membership. This led to an increase in liquidity from membership and entrance fees. SACCOS also benefited from grants in form of training leading to an improvement in capacity and ability of the Sacco and members.

Moore (2010) investigated the effects of the financial crisis on the liquidity of commercial banks in Latin America and Caribbean countries. The study had three main goals: discussing the behavior of commercial bank liquidity during crises in Latin America and the Caribbean; identifying the key determinants of liquidity, and; to provide an assessment of whether commercial bank liquidity during crises is higher or lower than what is consistent with economic fundamentals. Liquidity which was measured by loan- to-deposit ratio should depend on: cash requirements of customers, captured by fluctuations in the cash-to-deposit ratio expected to have negative impact, the macroeconomic situation, where a cyclical downturn should lower banks' expected transactions demand for money and therefore lead to

decreased liquidity expected to have positive impact on liquidity, and money market/short term interest rate as a measure of opportunity costs of holding liquidity expected to have negative effect on liquidity. The regression model was estimated using ordinary least squares. The result of the study showed that the volatility of cash-to-deposit ratio and money market interest rate have negative and significant effect on liquidity. Whereas, liquidity tends to be inversely related to the business cycle in half of the countries studied, suggesting that commercial banks tend to err on the side of caution by holding relatively more excess reserves during downturns. Generally, the results showed that on average, bank liquidity is about 8% less than what is consistent with economic fundamentals.

Vodova (2011) aimed to identify important factors affecting commercial banks liquidity of Czech Republic. In order to meet its objective the researcher considered bank specific and macroeconomic data over the period from 2001 to 2009 and analyzed them with panel data regression analysis by using E-Views 7 software package. The study considered four firm specific and eight macroeconomic independent variables which affect banks liquidity. The expected impact of the independent variables on bank liquidity were: capital adequacy, inflation rate and interest rate on interbank transaction/money market interest rate were positive and for the share of non-performing loans on total volume of loans, bank profitability, GDP growth, interest rate on loans, interest rate margin, monetary policy interest rate/repo rate, unemployment rate and dummy variable of financial crisis for the year 2009 were negative whereas, the expected sign for bank size was ambiguous (+/-). The dependent variable (i.e. liquidity of commercial banks) was measured by using four liquidity ratios such as liquid asset to total assets, liquid assets to total deposits and borrowings, loan to total assets and loan to deposits and short term financing. The study by Vodova (2011) revealed that bank liquidity was positively related to capital adequacy, interest rates on loans, share of non-performing loans and interest rate on interbank transaction. In contrast, financial

crisis, higher inflation rate and growth rate of gross domestic product have negative impact on bank liquidity. The relation between the size of the bank and its liquidity was ambiguous as it was expected.

An empirical study made by Fadare (2011), on the banking sector liquidity and financial crisis in Nigeria with the aim of identifying the key determinants of banking liquidity in Nigeria, and assessing the relationship between determinants of banking liquidity and financial frictions within the economy. It was employed a linear least square model and time series data from 1980 to 2009. The study found that only liquidity ratio, monetary policy rate and lagged loan-to-deposit ratio were significant for predicting banking sector liquidity. Secondly, it showed that a decrease in monetary policy rate, liquidity ratios, volatility of output in relation to trend output, and the demand for cash, leads to an increase in current loan-to-deposit ratios; while a decrease in currency in circulation in proportion to banking sector deposits; and lagged loan-to-deposit ratios leads to a decline in current loan-to-deposit ratios. Generally, the result suggested that during periods of economic or financial crises, deposit money banks were significantly illiquid relative to benchmarks, and getting liquidity monetary policies right during these periods is crucial in ensuring the survival of the banking sector.

Pavla (2012) conducted a study to establish determinants of commercial bank's liquidity in Slovakia. The study found that bank liquidity drops mainly as a result of the financial crisis. Bank liquid assets decreases also with higher bank profitability, higher capital adequacy and with the size of bank. Liquidity measured by lending activity of banks increases with the growth of gross domestic product and bank profitability and decreases with higher unemployment.

Tesfaye (2012) conducted an empirical study on commercial banks in Ethiopia to establish determinants of banks liquidity and their impact on financial performance. The results of



panel data regression analysis showed that capital adequacy, bank size, share of non-performing loans in the total volume of loans, interest rate margin, inflation rate and short term interest rate had positive and statistically significant impact on banks liquidity.

#### **2.4.2 Local Studies**

Locally, in 2006, Maore (2006) did a study to analyze the determinants of the liquidity of the commercial banks in Kenya using a multiple linear regression model. The study focus was exclusively on a cross section of 30 commercial banks in Kenya. The findings from a cross sectional analyses indicate that significant factors that determine the liquidity of the commercial banks in Kenya are liquid liabilities, growth and maturity.

Kimani (2011) provided a study where he conducted an analysis of working capital management and its implication on liquidity risk in quoted commercial banks in Kenya. The study used a longitudinal research design as it involved taking repetitive measures overtime for the purpose of comparing returns over the periods. The study established that debtors' collection period and cash conversion cycle have significantly negative relationship with liquidity of quoted commercial banks; this means that more liquid banks take the shortest time to collect cash from their customers. Creditors' payment period have significantly positive relationship with liquidity of quoted commercial banks in Kenya, this implies that the longer the bank takes to pay its creditors, the more liquid it is.

Further, Ogol (2011) conducted a study to find out liquidity risk management practices in microfinance institutions in Kenya. The study was conducted on all 41 MFIs listed by the CBK in 2002. The findings of the study indicate that most MFIs have laid down policies to refer to in identifying liquidity risks and that the MFIs have their core risk policy formulation done by the risk committee.

## **2.5 Summary of the Literature Review**

Literature reviewed indicates that holding sufficient liquidity is necessary to insure against liquidity risk. The literature shows that SACCOS could resort to other forms of financing, such as accessing interbank markets, central bank liquidity windows, or external credit lines to enhance their liquidity. The adequacy of a financial institutions' liquidity varies; in the same institution, at different times, similar liquidity positions may be adequate or inadequate depending on anticipated or unexpected funding needs. To provide funds to satisfy liquidity needs, SACCOS may consider debt financing, equity financing, savings or financing from other non core business.

SACCOS hold a buffer of liquid assets as self-insurance, equating the marginal benefit of holding liquid assets to the marginal cost of alternative investments. Liquidity in SACCOS is influenced by financial institutions financing strategies, opportunity and shock funding, macro-economic factors and SACCOS characteristics. Companies start to build liquidity to meet favorable future investment prospective. According to the literature there exists a connection between financial constraints and firms' liquidity demand.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

According to Mugenda and Mugenda (2003), research methodology refers to the systems, methods and techniques used by a researcher in collecting data to define research problem. This chapter therefore presented the research design, population, sampling, data collection and data analysis.

#### **3.2 Research Design**

Kombo and Tromp (2006) define research design as the scheme outline or plan that is used to generate answers to research problems. This study employed descriptive survey. A descriptive study attempts to describe or define a subject, often by creating a profile of a group of problems, people, or events, through the collection of data and tabulation of the frequencies on research variables or their interaction (Cooper & Schindler, 2003). Kombo and Tromp (2006) notes that the choice of descriptive survey research design is made in a study when the research is interested on the state of affairs already existing in the field and no variable would be manipulated. This study aimed at establishing the effect of financing strategies on liquidity of SACCOS licensed by SASRA.

#### **3.3 Population**

According to Ngechu (2004), a population is a well defined or set of people, services, elements, events, group of things that are being investigated. Further, Jacobsen (2002) indicated that population is the whole group that the research focuses on. The populations of

the study included the 34 SACCOS licensed by SASRA in Nairobi County. A census survey of all the 34 SACCOS was carried out.

### **3.4 Data Collection**

This study collected secondary data. Secondary data was collected from published financial statements. According to Cooper and Schindler (2003), secondary data involves collection and analysis of published material and information from other sources such as annual reports, published data. Cooper and Schindler (2003) further explain that secondary data is a useful qualitative technique for evaluating historical or contemporary confidential or public records, reports, government documents and opinions.

### **3.5 Data Analysis**

The data was analyzed using descriptive statistics. The descriptive statistical tools (SPSS Version 21 and Excel) helped the researcher to describe the data. The findings were presented using tables, charts and graphs for further analysis and to facilitate comparison, while explanation to the tables, charts and graphs given in prose.

#### **3.6.1 Analytical Model**

The study further used regression inferential analysis. Multiple regressions was used to determine the predictive power of financing strategies on liquidity. Regression method was useful for its ability to test the nature of influence of independent variables on a dependent variable. Regression is able to estimate the coefficients of the linear equation, involving one or more independent variables, which best predicted the value of the dependent variable (Cooper and Schindler (2003)).

The study used the following formula to calculate liquidity of the SACCOS.

$$\text{Liquidity ratio} = \frac{\text{Cash} + \text{Cash inflows for the period}}{\text{Cash outflows for the period}}$$

Where:

Cash=This was cash at hand and in bank

Cash inflows for the period =This was a total of; Members contributions and loan repayments and incomes from other diversified sources.

Cash outflows for the period =This was total of Loans and other disbursements to members, Short term liabilities and other expenses for the period.

From the literature reviewed Myers, (2000) notes that financial institutions finance their activities through debts. Further, Diamond and Rajan (2001) noted that equity capital plays a part in the liquidity provision function of financial institutions. Therefore, leverage is an important predictor of a financial institution liquidity position. SACCOS take deposits in terms of savings and make loans, and profit by the difference between the costs of the former and the earnings from the latter activities (Stiroh, 2004). To enhance their liquidity, SACCOS, like other firms, diversify across various lines of business, although there is usually some degree of specialization. Nonetheless, growth in real GDP determines the level of business operations. If capital markets are imperfect, the demand for liquidity should be countercyclical, as SACCOS and other financial institutions would hoard liquid assets during recessions and offload them in good times given more opportunities to lend. This suggests that liquidity buffers would be negatively related to measures of the output gap or real GDP growth, credit cycle, and policy interest rates. Based on this understanding, the study used regression model to establish the predictive power of the effect of leverage, members' savings, and diversification on liquidity of SACCOs licensed by SASRA.

The regression model was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = liquidity

$\beta_0$  = Constant Term;

$\beta_1, \beta_2, \beta_3$  and  $\beta_4$  = Beta coefficients; (all the beta coefficients were hypothesized to have positive values indicating a positive relationship between the independent variables and the dependent variable)

$X_1$  = Leverage; this was (Debt/Equity)

$X_2$  = Members' savings; this was in relation to the total asset (Members Savings / Total Assets)

$X_3$  = Income from non-core activities such as real estate businesses; this was in relation to the total asset (Income from non-core activities / Total Assets)

$X_4$  = Macro economic variables; this was looked at as real GDP growth

$\varepsilon$  = Error term.

### **3.6.2 Test of Significance**

Coefficient of determination ( $R^2$ ) is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determinations for multiple regressions.  $R^2$  is defined in terms of the variation about the mean of y (liquidity) so that the model is arranged such that if the dependent variable changes the coefficient of determination will also change. It is thus goodness of fit static given by ratio of the explained sum of squares.

Analysis of Variance, popularly known as the ANOVA, can be used in cases where there are more than two groups the technique is used to compare the means of more than two samples.

F test is used to measure multiple variables which in our case are leverage, savings and other diversified sources of income. Under the F test framework, two regressions are required known as the Restricted and unrestricted Regressions. F calculated was tested against F critical to assess significance.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter presents the information processed from the data collected during the study on the effect of financing strategies on the liquidity of savings and credit co-operatives societies licensed by SASRA operating in Nairobi. The study included the 34 SACCOS licensed by SASRA in Nairobi County. A census survey of all the 34 SACCOS was carried out.

#### 4.2 Descriptive Statistics

This section presents data findings on liquidity ratios for the Saccos from year 2009 to 2013. Also, data findings on liquidity, leverage, members' savings, income source diversification and macro economic variables were also presented.

##### 4.2.1 Liquidity determination

The study used the following formula to calculate liquidity of the 34 SACCOS in Nairobi County.

$$\text{Liquidity ratio} = \frac{\text{Cash} + \text{Cash inflows for the period}}{\text{Cash outflows for the period}}$$



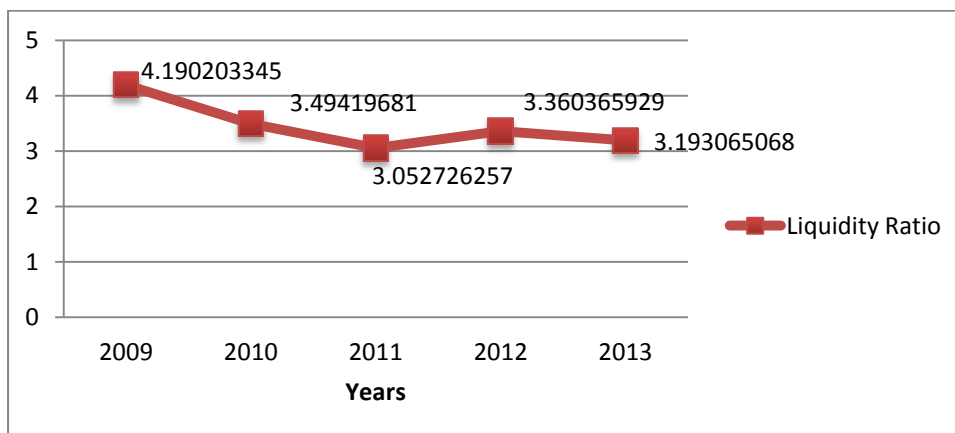
**Table 4.1: SACCOS Liquidity Ratio**

| Year | Cash and Cash Equivalent(Ksh) | Other Cash inflows for the period(Ksh) | Cash outflows for the period(Ksh) | Liquidity ratio |
|------|-------------------------------|--|-----------------------------------|-----------------|
| 2009 | 10,185,220,335                | 5,003,357,876                          | 3,624,783,086                     | 4.1902          |
| 2010 | 10,844,448,518                | 5,742,516,771                          | 4,747,003,729                     | 3.4942          |
| 2011 | 11,503,676,701                | 6,413,458,651                          | 5,869,224,373                     | 3.0527          |
| 2012 | 12,930,513,949                | 7,357,268,591                          | 6,037,373,003                     | 3.3604          |
| 2013 | 15,811,517,622                | 7,891,776,442                          | 7,423,367,064                     | 3.1931          |

**Source: Research Findings**

To show the trends in various parameters for liquidity, the results are also presented on figure 4.1 and 4.2 below. Table 4.1 above presents data finding on cash and cash equivalent, other cash inflows for the period, cash outflows for the period and liquidity ratio for the 34 SACCOS in Nairobi County.

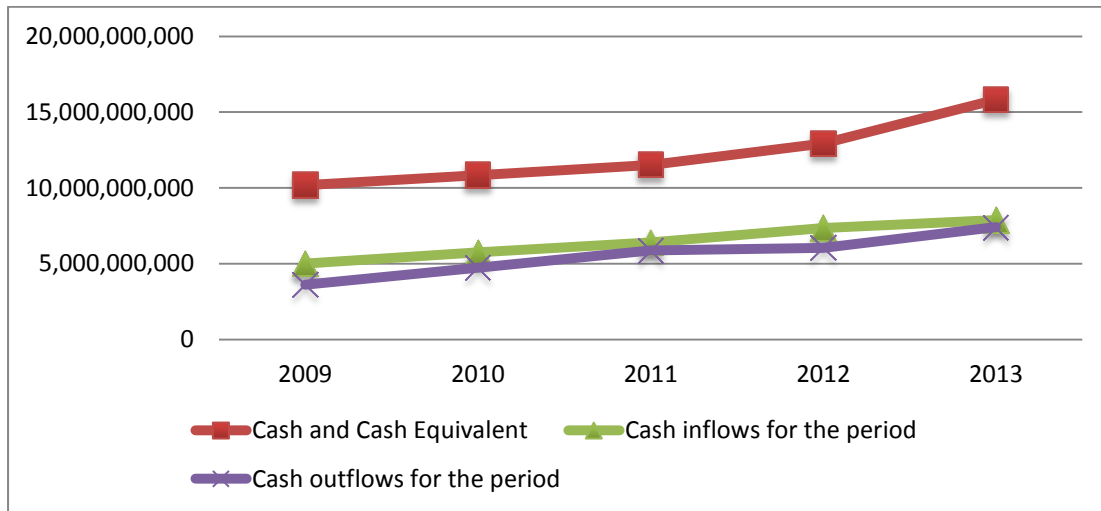
**Figure 4.1: SACCOS Liquidity Ratio**



**Source: Research Findings**

From the Table 4.1 and Figure 4.1 above, liquidity ratio for the 34 SACCOS licensed by SASRA in Nairobi County was at a high of 4.1902 in 2009 from where it started a downward trend hitting a 3.4942 in 2010 and 3.0527 in 2011. However, liquidity ratios for the SACCOS rose to 3.3604 in 2012 and then fell to 3.1931 in 2013.

**Figure 4.2: Cash, Cash Inflows and Cash Outflows**



**Source: Research Findings**

Table 4.1 and Figure 4.2 indicates that in the period under the study, cash and cash equivalent rose steadily from Ksh. 10,185,220,335 in 2009, to Ksh.10,844,448,518 in 2010, to Ksh.11,503,676,701 in 2011, to Ksh.12,930,513,949 in 2012 and then to Ksh.15,811,517,622 in 2013. There was a steady increase in other cash inflows for the period. Other cash inflows for year 2009 were Ksh. 5,003,357,876, 2010 was Ksh. 5,742,516,771, for 2011 was Ksh. 6,413,458,651, for 2012 was Ksh.7,357,268,591 and Ksh. 7,891,776,442 for year 2013. Similarly, cash outflows for the period rose from Ksh. 3,624,783,086 in 2009 to Ksh. 7,423,367,064 in 2013 with year 2010, 2011 and 2012 registering cash outflows of Ksh. 4,747,003,729, Ksh. 5,869,224,373 and Kshs. 6,037,373,003 respectively.

## 4.2.2 Summary of the Study Variables

This section presents a description of study variables.

**Table 4.2: Summary of the study variables**

|                                 | 2009     | 2010     | 2011     | 2012    | 2013     | Mean     | StdDev  |
|---------------------------------|----------|----------|----------|---------|----------|----------|---------|
| <b>Liquidity</b>                | 4.1902   | 3.4942   | 3.0527   | 3.3604  | 3.1931   | 3.4581   | 0.4420  |
| <b>Leverage</b>                 | 0.6117   | 0.9158   | 0.2547   | 0.5276  | 0.3951   | 0.54098  | 0.2494  |
| <b>Members savings</b>          | 0.7645   | 0.7590   | 0.7544   | 0.7544  | 0.7540   | 0.7573   | 0.00454 |
| <b>Diversification</b>          | 0.003369 | 0.004662 | 0.005763 | 0.01086 | 0.007187 | 0.006366 | 0.00287 |
| <b>Macro economic variables</b> | 2.7      | 5.8      | 4.4      | 4.6     | 4.7      | 4.44     | 1.1148  |

**Source: Research Findings**

From the summary in Table 4.2, Liquidity for the SACCOS had been decreasing from 2009 and recorded a low in 2011 (3.0527) then rose in 2012 and recorded a high of 3.3604 then decreased again in 2013 to record 3.1931. Leverage for the SACCOs in Nairobi County showed mixed results, in 2009, leverage was 0.6117, in 2010 it was at 0.9158 while in 2011, 2012 and 2013 leverage was at 0.2547, 0.5276 and 0.3951 respectively. Members' savings as a ratio of total asset remained fairly constant at 0.7645 in 2009, 0.7590 in 2010, 0.7544 in 2011, 0.7544 in 2012 and 0.7540 in 2013; the mean score was registered as 0.7573. Further, diversification in other non-core businesses increased slightly from 2009 (0.003369) to reach a high of 0.01086 in 2012 and then dropped to 0.007187 in 2013. Finally, there were mixed changes in macro economic variables (real GDP growth) reaching a peak of 5.8 in 2010 the

dropped to 4.4 in 2011 then rose to 4.6 and 4.7 in 2012 and 2013 respectively. The mean score for macro economic variables was 4.44.

### 4.3 Inferential Statistics

Pearson’s product moment correlation analysis was used to assess the relationship between the variables while multiple regressions were used to determine the predictive power of the effects of financing strategies on liquidity.

#### 4.3.1 Correlation Analysis

**Table 4.3: Correlation Matrix**

|   | Liquidity      | Leverage       | Members savings | Diversification | Macro economic variables |
|---|----------------|----------------|-----------------|-----------------|--------------------------|
| Liquidity (r)<br>(p) Sig. (2 tailed)                | 1.000          |                |                 |                 |                          |
| Leverage (r)<br>(p) (2 tailed)                      | 0.894<br>0.018 | 1.000          |                 |                 |                          |
| Members savings (r)<br>(p) Sig. (2 tailed)          | 0.793<br>0.021 | 0.316<br>0.047 | 1.000           |                 |                          |
| Diversification (r)<br>(p) Sig. (2 tailed)          | 0.661<br>0.027 | 0.163<br>0.019 | 0.216<br>0.047  | 1.000           |                          |
| Macro economic variables (r)<br>(p) Sig. (2 tailed) | 0.602<br>0.038 | 0.161<br>0.029 | 0.233<br>0.0464 | 0.462<br>0.014  | 1.000                    |

**Source: Research Findings**

The data presented before on leverage, members savings diversification and macro economic variables were computed into single variables per factor by obtaining the averages of each factor. Pearson's correlations analysis was then conducted at 95% confidence interval and 5% confidence level 2-tailed. The table above indicates the correlation matrix between the factors (leverage, members' savings, diversification and macro economic variables) and liquidity. According to the table, there is a positive relationship between liquidity and leverage, members' savings, diversification and macro economic variables of magnitude 0.894, 0.793, 0.661 and 0.602 respectively. The positive relationship indicates that there is a correlation between the factors and the liquidity with leverage having the highest value and macro economic variables having the lowest correlation value.

This notwithstanding, all the factors had a significant p-value ( $p < 0.05$ ) at 95% confidence level. The significance values for relationship between liquidity and leverage, members' savings, diversification and macro economic variables were 0.018, 0.021, 0.027 and 0.038 respectively. This implies that leverage was the most significant factor, followed by members' savings then diversification while macro economic variables were the least significant.

### **4.3.2 Regression Results**

The study conducted a multiple regression on the effect of financing strategies on the liquidity of savings and credit co-operatives societies licensed by SASRA. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (liquidity) that is explained by all the four independent variables (leverage, members savings, diversification, and macro economic variables).

**Table 4.4: Model Summary**

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1     | 0.829 | 0.687    | 0.654             | 0.163                      |

**Source: Research Findings**

The four independent variables (financing strategies) that were studied, explain only 68.7% of the liquidity in Sacco's licensed by SASRA operating in Nairobi County as represented by the adjusted R<sup>2</sup>. This therefore means the four financing strategies explains 68.7% of liquidity in Sacco's licensed by SASRA operating in Nairobi County, while other factors not studied in this research contributes 31.3% of liquidity in Sacco's licensed by SASRA operating in Nairobi County. Therefore, further research should be conducted to investigate the other (31.3%) factors influencing liquidity of Sacco's licensed by SASRA.

**Table 4.5: ANOVA Results**

| Model |            | Sum of Squares | df | Mean Square | F     | Sig. |
|-------|------------|----------------|----|-------------|-------|------|
| 1     | Regression | 2.781          | 4  | .195        | 9.363 | .006 |
|       | Residual   | 1.113          | 29 | .000        |       |      |
|       | Total      | 3.894          | 33 |             |       |      |

**Source: Research Findings**

From the ANOVA statistics in table 4.4, the processed data, which are the population parameters, had a significance level of 0.006 which shows that the data is ideal for making a conclusion on the population's parameter. The F calculated at 5% level of significance was

9.363. Since F calculated is greater than the F critical (value = 2.7014), this shows that the overall model was significant i.e. there is a significant relationship between liquidity and the financing strategies.

**Table 4.6: Coefficients of Determination**

| Model                    | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig.  |
|--------------------------|-----------------------------|------------|---------------------------|-------|-------|
|                          | B                           | Std. Error | Beta                      |       |       |
| (Constant)               | 0.704                       | 0.864      |                           | 2.089 | 0.035 |
| Leverage                 | 0.750                       | 0.110      | 0.496                     | 3.539 | 0.016 |
| Members savings          | 0.665                       | 0.958      | 0.454                     | 3.461 | 0.025 |
| Diversification          | 0.496                       | 0.736      | 0.167                     | 2.886 | 0.033 |
| Macro economic variables | 0.443                       | 0.025      | 0.123                     | 2.820 | 0.037 |

Dependent Variable: Liquidity

**Source: Research Findings**

The coefficient of regression in table 4.5 above was used in coming up with the model below:

$$LQTY=0.704+ 0.750LEV+ 0.665MBSAV+ 0.496DIV + 0.443MEV$$

Where LQTY is liquidity, LEV is leverage, MBSAV is members’ savings, DIV represents diversification or income from other non-core businesses while MEV is macro economic variables. According to the model, all the variables were significant as their significance value was less than 0.05. The four variables (leverage, members’ savings, diversification, and macro economic variables) were positively correlated with liquidity of Saccos licensed by SASRA operating in Nairobi County. From the model, taking all factors (leverage, members savings, diversification, and macro economic variables) constant at zero, liquidity of Saccos

licensed by SASRA operating in Nairobi County was 0.704. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in leverage will lead to a 0.750 increase in liquidity of Saccos licensed by SASRA operating in Nairobi County, a unit increase in members' savings will lead to a 0.665 increase in liquidity of Saccos licensed by SASRA operating in Nairobi County, a unit increase in diversification into non core business will lead to a 0.496 increase in liquidity of Saccos licensed by SASRA operating in Nairobi County while a unit increase in macro economic variables will lead to a 0.443 increase in liquidity of Saccos licensed by SASRA operating in Nairobi County. This infers that leverage influences the liquidity of Saccos licensed by SASRA operating in Nairobi County most.

#### **4.4 Interpretation of the Findings**

From the above regression model, the study found out that there liquidity of Saccos licensed by SASRA operating in Nairobi County was influenced by the following factors, leverage, members savings, diversification, and macro economic variables. These factors influenced liquidity of Saccos licensed by SASRA operating in Nairobi County positively. The study found out that the intercept was 0.704 for all the five years focused by the study.

The four independent variables that were studied (leverage, members savings, diversification, and macro economic variables) explain 68.7% of liquidity of Saccos licensed by SASRA operating in Nairobi County as represented by adjusted  $R^2$  (0.687). This therefore means that the four independent variables explains 68.7% of the of liquidity of Saccos licensed by SASRA operating in Nairobi County while other factors and random variations not studied in this research contributes to 31.3% of liquidity of Saccos licensed by SASRA operating in Nairobi County.



The study established that the coefficient for leverage was 0.750 with a p value of 0.016, meaning that leverage positively and significantly influenced the liquidity of Saccos licensed by SASRA operating in Nairobi County. These results are in line with Diamond and Rajan (2001) findings that suggested equity capital can act as a buffer to protect depositors in times of distress; institutions equity capital plays a part in the liquidity provision function of financial institutions. Further, in line with this result, Biekpe and Kiweu, (2009) notes that commercial sources of financing (debt financing and equity financing) play great role in provision of liquidity for Saccos. Further, according to Basu and Woller (2005) access to debt financing (bank loans) and relatively high costs of borrowing greatly influences liquidity of Saccos.

However, Garcia-Teruel and Martinez-Solano (2007) warns that when firms have problems with liquidity they may defer their payments to creditors which is a harmful for companies and can result in several consequences such as worse credit terms in the future. Further Diamond and Rajan (2001) highlights that loans are relatively illiquid, large and unexpected deposit withdrawals can lead to insolvency as it may be too costly or not possible to raise liquidity on short notice, due to capital market imperfections.

The study also established that members savings positively influenced the liquidity of Saccos licensed by SASRA operating in Nairobi County as it had positive coefficient (0.665) with a p-value of 0.025. This finding is in line with Morduch and Haley (2002) who indicated that SACCOS promotes savings; appropriate management of the deposit service and micro and small savings help SACCOS maintain their liquidity through generating their own internal flow of funds that in turn reduce their dependency on external sources.

The study further found out that the coefficient for diversification was 0.496 and had a with a p value of 0.033. This depicts that diversification positively and significantly influenced the liquidity of Saccos licensed by SASRA operating in Nairobi County. These findings concur

with others by DeYoung and Roland (2001) who indicated that a shift toward fee-based activities for Saccos is associated with increased revenue volatility and a higher liquidity. Also, De Sousa-Shields (2005) highlights the importance of diversification by Saccos by indication that Saccos require access to financing far beyond that available from traditional sources of development financing to meet their entire financial obligation as they fall due. In support of income source diversification, Bosch and Kick (2009) noted that diversification across various sources of earnings is welcomed for, it is claimed that diversification reduces risk.

Finally, the study found out that macro economic variables positively and significantly influenced the liquidity of Saccos licensed by SASRA operating in Nairobi County as it had a positive coefficient of 0.443 and a p value of 0.037. This result concurs with another by Aspach, Nier and Tiesset (2005) who highlighted that when capital markets are imperfect, the demand for liquidity should be countercyclical, as SACCOS and other financial institutions would hoard liquid assets during recessions and offload them in good times given more opportunities to lend. This depicts that there is a positive relationship between firms liquidity and macro economic factors.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter provides a summary, conclusion and recommendations of the main findings on the effect of financing strategies on the liquidity of savings and credit co-operatives societies licensed by SASRA operating in Nairobi. The chapter presents the discussions drawn from the data findings analyzed and presented in chapter four. The study was conducted by use of secondary sources such as the financial statements from the Saccos. The chapter is structured into discussions, conclusions, recommendations and areas for further research.

#### **5.2 Summary**

Financing is a major constraint in microfinance, slows the growth and expansionist activities of microfinance innovation in many developing economies. Financing strategy outlines the way in which an organisation obtains monitors and utilizes capital resources for their growth. For many MFIs, savings, domestic and international debt, and equity investment have resulted to be choice strategies to reduce financial constraints and also to meet their financial dues as the fall due. Therefore, Saccos alike are always striving to maintain their liquidity at safe levels. This move is informed by the need to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses. Liquidity can be understood in terms of flows (as opposed to stocks). Second, liquidity refers to the ability of realizing these flows. Inability of doing so would render the financial entity illiquid. Maintaining a robust liquidity management is very challenging and difficult in a current competitive and open economic system with strong external influences and sensitive market players. However, firms have to do this. Companies that fail to manage their liquidity may

defer their payments to creditors which is a harmful and can result in several consequences such as worse credit terms in the future.

The study sought to investigate the effect of financing strategies on the liquidity of savings and credit co-operatives societies licensed by SASRA operating in Nairobi. The study applied a descriptive study. The research design used was cross-sectional design, which was a study in which data was gathered systematically over a period of time in order to answer a research question. A census survey of all the 34 Saccos in Nairobi was carried out. Data was obtained from secondary sources such as the financial statements of the Saccos. A multiple regression model was employed. A computer package SPSS (Statistical Package for the Social Sciences) version 21 was used to solve the multiple regression equation used in this study. From the regression model, the study found out that leverage, member's savings, diversification, and macro economic variables influences liquidity of Saccos positively. The study found out that the intercept was 0.704 for all the five years considered in the study. The four independent variables that were studied (leverage, members savings, diversification, and macro economic variables) explain a substantial 68.7% of liquidity of Saccos operating in Nairobi county as represented by adjusted  $R^2(0.687)$ . The study concludes that financial strategies positively and significantly influence the liquidity in Saccos licensed by SASRA operating in Nairobi County.

### **5.3 Conclusion**

Top management in most organizations is vested with mandate to formulate strategies in an organization to ensure that operations of a firm are profitable. According to Stewardship theory, the top management would protect and maximizes shareholders wealth through enhancing firms' performance, because by so doing, the steward's utility functions are maximized. Similarly, as stressed by Agency theory, the management works on behalf of

stakeholders. Therefore, the management in the Saccos seeks to maximize stakeholders' utility by formulating strategies that enhance organizational performance. Stakeholder theorists suggest that managers have a network of relationships to serve, which include the suppliers, employees and business partners. All these stakeholders needs to be achieved by ensuring that the organization is run profitably. This study sought to establish the influence of financing strategies on liquidity of Saccos. A positive relationship between liquidity and the financing strategies was established. The study concluded that leverage, members savings, diversification, and macro economic variables influences liquidity of Saccos licensed by SASRA operating in Nairobi.

The study concludes also that the four independent variables studied (leverage, members savings, diversification, and macro economic variables) are main financial strategies that influences liquidity as they contributes to Saccos licensed by SASRA operating in Nairobi County liquidity up to 68.7% as represented by adjusted  $R^2$  (0.687). Other factors and random variations not studied in this research contributes to 31.3% of liquidity of Saccos licensed by SASRA operating in Nairobi County.

The study also concludes that leverage influences liquidity of Saccos licensed by SASRA operating in Nairobi County. The coefficient for leverage was 0.750 with a p value of 0.016, meaning that leverage positively and significantly influenced the liquidity of Saccos licensed by SASRA operating in Nairobi County. This conclusion is supported by Biekpe and Kiweu (2009) who noted that commercial sources of financing (debt financing and equity financing) play great role in provision of liquidity for Saccos.

Also, the study concludes that members savings positively influences the liquidity of Saccos licensed by SASRA operating in Nairobi County as it had positive coefficient (0.665) with a p-value of 0.025. According to Morduch and Haley (2002), SACCOS promotes savings from members, therefore, appropriate management of the deposit service and micro and small

savings help SACCOs maintain their liquidity through generating their own internal flow of funds that in turn reduce their dependency on external sources.

Also, the study concludes that diversification as a financial strategy employed by Saccos licensed by SASRA operating in Nairobi County influenced their liquidity. The study found out that the coefficient for diversification was 0.496 and had a with a p value of 0.033. This conclusion is in line with DeYoung and Roland (2001) who indicated that a shift toward fee-based activities for Saccos is associated with increased revenue volatility and a higher liquidity. Finally, the study concluded that macro economic variables are positively and significantly related to the liquidity of Saccos licensed by SASRA operating in Nairobi County.

#### **5.4 Policy Recommendations**

The study recommends that Saccos should have an agreed-upon strategy for the day-to-day management of liquidity risk that takes into consideration their business models and legal structures, complexity, key lines of business, regulatory requirements and environments, marketplaces, and risk materiality in the context of the firm-wide risk-management strategy and appetite. The rationale for this strategy should be explained, and the strategy should be communicated throughout the Sacco.

A Saccos' board of directors should approve strategy and significant policies related to the management of liquidity risk under both normal and stressed conditions and review and approve these policies frequently as need arise. The board should also ensure that senior management takes necessary steps to appropriately manage, measure, monitor, and control liquidity risk in an integrated fashion with other closely associated risks to facilitate enterprise-wide risk-management solutions. The board should be informed regularly of the

liquidity position of the firm, and immediately notified if there are any material changes in the firm's current or prospective liquidity positions.

Saccos should have a management structure in place to effectively execute their financial strategies to enhance liquidity. The structure should include an ongoing involvement of members of senior management, who must ensure that liquidity is effectively managed on a regular and timely basis and that appropriate policies and procedures are established to limit and control material sources of funding liquidity risk.

Also, the Saccos should develop methodologies and policies to determine the level of specifically earmarked liquid assets that they should maintain at all times to meet immediate liquidity needs when faced with adverse conditions. These policies should also include criteria for asset composition. Therefore, Saccos should manage the demand and supply of liquidity in an appropriate manner in order to safely run their business, maintain good relations with the stakeholders and avoid liquidity problem

## **5.5 Limitations of the Study**

The study was limited to Saccos licensed by SASRA operating in Nairobi County. Therefore, the findings may not be representative of other organizations outside this scope.

Since macro economic variables operates on a relatively vast scope and their effects is felt across myriad of industries with different levels of severity. However, it's relatively difficult to apportion the influence that these variables have on Saccos and therefore this study uses the average effect recorded nationally.

Also, it was difficult to obtain data from some Saccos relating to their level of justification and revenue realized from diversification. Therefore, the study used averages that were obtained from SASRA supervision report. This information was vital in for the study.

Time allocated for the study was insufficient while holding a full time job and studying part time. This was encountered during the collection of material as well as the data to see the study success. However the researcher tried to conduct the study within the time frame as specified.

Another limitation is developing a model which would enable the researcher to study the relationship between dependent and independent variables. When developing this model, there was a great need to define the dependent variables and independent variables. If the model is not correct, the process of analysis may not give the right results. In this case, linear regression was used.

## **5.6 Suggestions for Further Research**

Since this study focused on influence of financial strategies on the liquidity of savings and credit co-operatives societies licensed by SASRA operating in Nairobi, the study recommends that another study should be conducted to establish whether similar results would be replicated in other financial institutions such as a banks, insurance companies and other MFIs.

Further, another study should be carried out to establish the contribution of income source diversification activities of Saccos to its total revenue. In this proposed study, the effect of income source diversification on firm's performance will be studied. Its contribution to revenue should be measured against administrative cost to ascertain whether the move is profitable or not. Further, such a study will be important to the management as it will help



them to see the link between diversification into noncore businesses and liquidity position of the firm.

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## APPENDICES

### Appendix I: Deposit-taking Sacco Societies Licensed by the SASRA

1. Afya Sacco Society Ltd
2. Airports Sacco Society Ltd
3. Asili Sacco Society Ltd
4. Chai Sacco Society Ltd
5. Chuna Sacco Society Ltd
6. Comoco Sacco Society Ltd
7. Harambee Sacco Society Ltd
8. Hazina Sacco Society Ltd
9. Jamii Sacco Society Ltd
10. Kenpipe Sacco Society Ltd
11. Kenversity Sacco Society Ltd
12. Kenya Bankers Sacco Society Ltd
13. Kenya Police Staff Sacco Society Ltd
14. Kingdom Sacco Society Ltd
15. Magereza Sacco Society Ltd
16. Maisha Bora Sacco Society Ltd
17. Miliki Sacco Society Ltd
18. Mwalimu National Sacco Society Ltd
19. Mwito Sacco Society Ltd
20. Nacico Sacco Society Ltd
21. Nafaka Sacco Society Ltd
22. Naku Sacco Society Ltd
23. Nassefu Sacco Society Ltd
24. Nation Sacco Society Ltd
25. Safaricom Sacco Society Ltd
26. Sheria Sacco Society Ltd
27. Stima Sacco Society Ltd
28. Ufaunisi Sacco Society Ltd
29. Ukruisto Na Ufanisi Sacco Society Ltd
30. Ukulima Sacco Society Ltd
31. United Nations Sacco Society Ltd
32. Wanaanga Sacco Society Ltd
33. Wanandegge Sacco Society Ltd
34. Waumini Sacco Society Ltd



## **Appendix II: Transmittal Letter**

Purity Muthoni Kimathi

P.O Box 62641-00200,

Nairobi.

17<sup>th</sup> September 2014

To

The chief executive director,

Sacco Societies Regulatory Authority

P.O Box 25089-00100,

Nairobi

Dear Sir,

**RE: REQUEST FOR SACCOS FINANCIAL INFORMATION FOR  
ACADEMIC USE ONLY:**

I am a student of Nairobi University pursuing a Master degree in finance. Am currently doing my research project and the topic is '**The effect of financing strategies on liquidity of Savings and credit co-operative society licensed by SASRA in Nairobi county**'.

I am requesting for the financial statements of the Sacco's attached to assist me carry out the research which will be helpful to both many including SACCO'S managers and SASRA in coming up with proper strategies in ensuring that SACCO'S do not have liquidity problems in future.

Kindly find attached data collection authority letter from the university and also the list of the Sacco's I would like to collect data on.

Thank you

Purity Kimathi