EFFECT OF LIQUIDITY MANAGEMENT ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING SAVING AND CREDIT CO-OPERATIVE SOCIETYIN KENYA

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DOCTOR OF PHILOSOPHY

(Business Administration)

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

2016

Effect of Liquidity Management on Financial Performance of Deposit Taking Saving and Credit Co-operative Society in Kenya

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Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Business Administration in the Jomo Kenyatta University of Agriculture and Technology

2016

DECLARATION

This Thesis is my original work and has not been presented for a degree in any university.

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This Thesis has been submitted for examination with our approval as University Supervisors.

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DEDICATION

This Thesis is dedicated to my beloved wife Norah Mugambi and my Kid: Leone Njeru for their love and support during my PhD studies. They were my source of inspiration when the going got tough and the challenges seemed overwhelming.

ACKOWLEDGEMENTS

Thesis like this is never the work of one person alone. The contributions of many different people, in their unique ways, have made completion of the thesis. I would like to thank God for the wisdom, financial support and guidance bestowed upon me during this research project, and indeed, throughout my life. In a very profound way, I wish to sincerely thank Dr. Agnes Njeru and Dr. Florence Memba for their tireless support throughout the period of my doctoral studies. I am truly grateful for the professional guidance, advice and encouragement received from these distinguished scholars. I cannot express my gratitude in enough words for my family, whose unconditional love has been by source of inspiration. You will always remain treasured.

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LIST OF ABBREVIATIONSAND ACRONYMS

ACCOSSCA	Africa Confederation of Cooperative Society Savings and Credit Association
ACTED	Agency for Technical Cooperation and Development
BOD	Board of Directors
CAMEL	Capital Asset Management Earnings Liquidity
FCs	Financial Cooperatives
FOSA	Front Office Service Activity
ICA	International Co-operative Alliance
ICT	Information Communication Technology
IMF	International Monetary Funds
KUSCCO	Kenya Union of Savings Credit Co-operative Unions
MFL	Microfinance House Limited
MFI	Micro Finance Institutions
MoCD&M	Ministry of Cooperative Development &Marketing
PEARLS	Protection Effective Asset Rate Liquidity Signs
PSV	Public Service Vehicles
ROA	Return on Asset
SACCO	Saving and Credit Co-operative Society
SASRA	SACCO Society Regulatory Authority
SSA	SACCO Society Act
SSE	Small Scale Enterprises
WOCCU	World Council of Credit Unions

DEFINITION OF KEY TERMS

Cash Management: is the corporate process of collecting, managing and (short-term) investing cash. A key component of ensuring a company's financial stability and solvency, (SACCO Act, 2004).

Cooperative: an autonomous association of persons united voluntarily to meet their common economic and social needs (Co-operative Society act, 1997)

Deposit-taking business: a SACCO business in which the person conducting the business holds himself out as accepting deposits on a day-to-day basis, (SACCO Societies Act, 2008).

Liquidity Decisions: Analysis that indicates an institution's ability to fund increase in assets and meet obligations when they fall due.

Liquidity Management: SACCO's ability to meet share and savings withdrawals, external borrowing repayments, member loan demand and operating expenses, (SACCO Act, 2004).

Loan Repayment: is the act of paying back money previously borrowed from a lender,(SACCO Act, 2004).

Management Competency: Observable abilities, skills, knowledge, motivations or traits defined in terms of the behaviors needed for successful job performance, (Okello, 2006).

Non-Core Investments: assets that are either not essential or simply no longer used in a company's business operations. They usually serve companies best when extra cash is needed as they can often be sold, (SACCO Act, 2004).

ABSTRACT

This study focuses on effect of liquidity management on financial performance of deposit taking SACCOs in Kenya. It is undeniable fact that member's loan demand is very high and incompatible compared with the availability of funds. This follows that SACCOs face a risks arising from liquidity shortage and this has been a major cause of failure of many financial cooperatives. In Kenya, SACCOs don't have access to the lender of last resort, the Central Bank of Kenya. So in times of market difficulties and constrains they have nowhere to get the asset of cash. This makes them prone to the liquidity shortage, and no matter how small, can cause great damage to a savings institution.

The specific objectives were to explore the effect of cash management to financial performance of deposit taking SACCOs in Kenya; to examine the effect of Loan Repayment on financial performance of deposit taking SACCOs in Kenya; to assess the effect of investment in non-core business on financial performance of the deposit taking SACCOs in Kenya; to establish effect of liquidity decisions on financial performance of deposit taking SACCOs in Kenya; to evaluate the effect of management competency on financial performance of deposit taking SACCOs in Kenya and to determine the moderating effect of SACCO regulation on financial performance of deposit taking SACCOs in Kenya.

The target population was thirty licensed deposit taking SACCOs in Kenya, the sampling technique employed was simple random sampling and the sample size was 92 respondents. This study adopted a descriptive survey in soliciting information on effects of liquidity management on financial performance of deposit taking SACCOs in Kenya. Primary quantitative data was collected by use of self-administered structured questionnaires. The researcher also used secondary data derived from the audited financial statement of the SACCOs and the regulator (SASRA). The data collected was analyzed, with respect to the study objectives, using both descriptive and inferential statistics. The data was analyzed using descriptive statistics such as mode, median, mean, standard deviation. Research hypothesis was tested by use of F- test statistics, to determine relationship between variables, cross tabulation was undertaken with the help of SPSS and correlation was determined. Univariate and

multiple regression analysis was employed to determine relationship between liquidity management and financial performance of SACCOs. Data was presented in tables, charts, figures and mathematical expressions.

The results showed that even though SACCOS undertake strict cash flow forecast, there are external variables that can affect cash management which poses a greater risk in the operations of the institutions. Hence the need to critically review in-depth on the cash management factors both in the external environment and internal environment that can affect cash management in the institution and establish mitigation factors. High level of gross loan portfolio showed the great need of loan by members which confirms the key mandate of deposit taking SACCOS on the issuance of loan to its members.

This reviewed that management has taken precaution measures on the management of the gross loans and they were pessimist on the dangers of having huge gross loan on their books. Members contribution played a key part in generating needed cash for the loans issues by the SACCO to their members, which indicate manageable levels of risk since external financial variable like inflation, macro-economic factors have less effect on the cash management of the institution hence the less effect on financial performance in the deposit taking SACCOS. The demand for cash by members in terms of loan request was very high resulting to inadequate surplus cash for diversified investments, also it could indicate lack of investment capacity across SACCOS hence less diversification on various option available in the market. SASRA need to devise an effective policy on guidance on dividend payment of the SACCOS since they seem to be paying more than the market rate which in the short run may look very lucrative but on the long run it will have a negative effect on the financial performance and stability of the SACCOS. Hence the need of the SACCO regulator to market and create awareness of its activities in the sector. This is critical since it will reduce the financial risk associated with investment in the SACCO sector and raise motivation to many more individuals to put their investment in the SACCO in the growing sector which will positively affect the sector and contribute towards growth and achievement of middle income economy as stipulated in vision 2030.The researcher found that there is need to introduce cash management controls in the SACCOs, there is need to better strengthen the role of SASRA and increase its

awareness, there is need to introduce credit management policy and finally increase the monitoring role of the government through its regulator in the sector since the sector plays a critical role on the achievement of vision 2030 and improved economic development of the members.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Cooperative societies are an autonomous association of persons united voluntarily to meet their common economic and social needs through jointly owned and democratically controlled enterprises, which are organized and operated under the principles of cooperatives (ICA, 2005). They are embodied in the values of self-help, honesty, openness, self-responsibility, social-responsibility, democracy, quality, equity, solidarity, mutual caring, efficiency, transparency and accountability (Okello, 2006; ICA, 2005).

The Deposit-taking Sacco Societies (DTSs) is part of the larger Sacco sub-sector in Kenya which comprises the deposit-taking and the non-deposit taking Sacco Societies. The non-deposit taking segment is composed of those Sacco Societies whose business is limited to mobilization of deposits (non-withdrawable) for purposes of lending to members. The deposits are non-withdrawable in that they may be used as collaterals for loans only, and can only be refunded upon the member's withdrawal. On the other hand, the deposit-taking segment of the sub-sector is composed of those Sacco Societies which undertake both withdrawable and non-withdrawable deposits. Whereas the non-withdrawable deposits portion of the business may be used as collateral and are not refundable unless on withdrawal from membership, the withdrawable deposits portion of the business can be accessed by the members at any time, (SASRA, 2014).

The Cooperative Sector in Kenya has been ranked as number seven worldwide and number one in Africa by ICA in terms of number of enterprises, membership, capital and contribution to national economy. Today, Kenya has about 15,000 registered Co-operatives which can be broadly categorized as financial and non-financial Co-operatives. Financial Cooperatives include Savings and Credit Cooperatives (SACCO

societies), Union of SACCOs, Housing and Investment Co-operatives. Non-financial co-operative include trading, produce and marketing Cooperatives, (ICA, 2007).

As Clement (2012) asserts, Cooperatives have long been recognized to play important roles in society that translates into the improvement of living conditions of their members, particularly the low-income earning cadres of the population, as well as the society at large. Being voluntary, democratic and self-controlled business associations, cooperatives offer the institutional framework through which local communities gain control over the productive activities from which they derive their livelihoods (Ofeil, 2005).Members pull resources together in form of savings, and the savings and credits society (SACCO) uses the mobilized savings to extend small credit facilities to them (Were, 2009). They are user owned financial cooperatives that offer savings, credit and other financial services to their members (WOCCU report, 2005).

1.1.1 Global perspective of Deposit Taking SACCOs

According to the 2014 International Co-operative Alliance's World Cooperative Monitor, the turnover of the largest 300 cooperatives in the world grew by 11.6% to reach $2.2 trillion in 2012, equivalent to the gross domestic product (GDP) of Brazil. The overall turnover of nearly 2,000 cooperatives in the 65 countries surveyed by the Monitor totals $2.6 billion. The top 300 cooperatives are active in three leading sectors: insurance (41%), agriculture and food (27%), and wholesale and retail (20%). Next come industry and utilities (5%), banking and financial services (4%), health and social care (1%), and others (2%). Of the 1,926 co-operatives included in the Monitor, 1,313 have a turnover of over $100 million and are spread across 50 countries.

The World Council of Credit Unions (WOCCU) statistical report for 2014, recorded a total of 57,000 Credit Unions (SACCOs), spread across 105 countries and 6 continents. The worlds Credit Union system has a combined savings of $ 1.5 trillion (US dollars),

and an asset base of $ 1.8 trillion (US dollars) out of which $ 1.2 trillion (US dollars) constituted the loan portfolio. The average worldwide penetration rate of the Credit Union system stood at 8.2 percent. The United Nations declared 2012 the Year of Co-operatives to recognize and celebrate the important role Co-operatives have played, and continue to play, over the last 170 years of their existence. ICA developed a Blueprint for a Co-operative decade enterprises where they should be acknowledged as leaders in economic, social and environmental sustainability; the business model preferred by people; and the fastest growing form of enterprise by Year 2020.

According to Cobia (2008), cooperative efforts have occurred throughout history. Since the early days, man cooperated with others to help kill large animals for survival and so as to achieve the objectives that they could not reach if they acted individually. Cooperation has occurred throughout the world. Ancient records show that the Babylonians practiced cooperative farming and that the Chinese developed savings and loan associations similar

to those in use today. In North America, clearing land in preparation for the planting of crops, threshing beans, and barn raisings all required cooperative efforts. In the United States, the first formal co-operative business is assumed to have been established in 1752, almost a quarter-century before the Declaration of Independence was signed.

In today's society, cooperative financial institutions hold a considerable market share, with the IMF estimates that across all banking sector assets in developing countries, the market share of co-operative finance was equivalent to 14 percent in 2004 (Hesse & Cihak, 2007). Previous research on cooperative finance during crisis indicates that they tended to fare better than investor-owned savings and loans institutions, as they pursue more conservative investment policies (Chaddad & Cook, 2004). For instance, analysis from the IMF indicates that co-operative banks in developed countries tend to be more stable than commercial banks, especially during financial crisis, as their investment

patterns tend to be less speculative and returns are therefore less volatile (Hesse & Cihak, 2007).

1.1.2 Regional perspective of Deposit Taking SACCOs

Recent research indicates that approximately seven per cent of the African population is affiliated to co-operatives (Pollet, 2009). The research indicates that while co-operatives are large in number and represent an organized movement, the movement suffers constraints that are related to lack of voice or effective representation in society. Pollet (2009) also found that specific social protection mechanisms associated with co-operatives in Africa are limited. Clement (2012) asserts, that formation of SACCOs in Africa has grown tremendously to the extent that African countries formed a continental association of SACCOs, Africa Confederation of Cooperative Society Savings and Credit Association (ACCOSSCA), in 1965. ACCOSSCA was formed with the principal objective of promoting the SACCO principles, offer SACCO insurance, and educate members on SACCO issues (Ng'ombe & Mikwamba, 2004).There are 28 countries in Africa that have established SACCOs (Savings Plus, 2010).

According to Clement (2012), SACCOs have the ability and opportunity to reach clients in areas that are unattractive to banks, such as rural or poor areas. This has made SACCOs more attractive to customers, thus deeply entrenching themselves in the financial sectors of many countries (Munyiri, 2006).There has been massive fraud of funds by SACCO leaders (Mugisa, 2010) and that delinquency in SACCOs had increased (CGAP report,2006) for instance, AlutKot SACCO in Lira loaned out Ugx 841,000,000 since 2002 but had only recovered 26% of the amount by 2010 (Ojwee, 2010). Failure to control these risks, especially credit risk, could lead to insolvency (Wenner, Navajas, Trivelli & Tarazona, 2007).AMFIU report (2007)states that about 2 out of 3 SACCOs initially formed were not operational (either dormant or collapsed) or for some reasons ceased operations. Alfred (2011) found that there have been

challenges of managing liquidity (as cited in Allen & Maghimbi, 2009) for instance Barr SACCO in Lira had an insufficient loan portfolio of Ushs.12, 690,000 (Kiwalabye, 2008) as well as low profitability (Kyazze, 2010) resulting into some SACCOs failing to repay loans lent to them with recovery rate of loans advanced to SACCOs worse in the Gulu Zone (Acholi & Lango-sub regions) (Ocowun, 2010).

1.1.3 Kenyan perspective of Deposit Taking SACCOs

In Kenya, SACCOs have mobilized over Kshs.200 billion in savings, accounting for over 30% to National Domestic Saving (Co-operative Bank of Kenya, 2010).Liquidity risk is a failure of SACCOs to honor approved loans due to inadequacy of loanable funds (Fiedler, Brown, & Moloney, 2002). Over the last decade, SACCO societies have significantly increased to account for 50% of the registered Co-operatives. Kenya's national development blueprint, the Vision 2030 recognizes SACCO societies as important players in deepening financial access to mobilize savings for investments in enterprises and personal development, (SASRA Report, 2013).Liquidity risk needs to be monitored as part of an integrated institution wide risk management process taking into account market and credit risk to ensure stability and improvement of loan portfolio in the balance sheet. This helps a SACCO to identify its future funding requirements and any potential risks (Fiedler, Brown, & Moloney, 2002). Failure or poor management of liquidity risk and credit risk affect the quality of loan portfolio and SACCOs that have managed liquidity risk and credit risk adequately their loan portfolio quality and performance is sound and healthy and vice versa.

As Nyabwanga (2011) asserts, working capital management is a very important component of corporate finance because it directly affects the liquidity, profitability and growth of a business and is important to the financial health of businesses of all sizes as the amounts invested in working capital are often high in proportion to the

total assets employed (Atrill, 2006). Nyabwanga (2011) described management of short-term assets as important as the management of long-term financial assets, since it directly contributes to the maximization of a business's profitability, liquidity and total performance. Consequently, businesses can minimize risk and improve the overall performance by understanding the role and drivers of working capital (Lamberson, 1995).

Nyabwanga (2011) found that setting up of a cash balance policy ensures prudent cash budgeting and investment of surplus cash. This finding agree with the findings by (Kotut, 2003) who established that cash budgeting is useful in planning for shortage and surplus of cash and has an effect on the financial performance of the firms. The assertion by (Ross et al., 2008) that reducing the time cash is tied up in the operating cycle improves a business's profitability and market value furthers the significance of efficient cash management practices in improving business performance.

Savings mobilization should be backed by adequate institutional capital which ensures permanency, provide cushion to absorb losses and impairment of members' savings Clement(2012). 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 & Cifunentes, 2001; Ombado, 2010). Clement (2012) asserts that institutional capital ensures the permanence and growth of the SACCOs even in turbulent economic times. In fact, it helps the SACCOs to grow and, remain economically and financially viable (Gijselinckx & Devetere, 2007).

More so, prudent funds allocation strategy is an important financial practice in any SACCO society. This aspect usually involve decisions to commit the SACCO's funds to planned investment options. SACCOs need to make decisions to invest their funds more efficiently in anticipation of expected flow of benefits in the long run. Such investment

decisions generally include expansion, acquisition, modernization and replacement of long-term assets (Maina, 2007). Thus, the SACCOs value is deemed to increase where the investments are profitable and add to the wealth in the long run. This situation is obtained where the SACCO involves itself with investments that yield benefits greater than the opportunity cost of capital.

According to Alfred (2011), SACCOs have 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). With the population of Kenya at 40 million it is estimated that 63% of Kenyans participate directly or indirectly in cooperative development enterprises. Kenya has the largest SACCO movement in Africa with a total membership of 8 million followed by Senegal at 5 million. To date there are over 11,200 registered SACCOs in the country, with a membership of 8 million Kenyans having mobilized domestic savings estimated at over $ 2.5 Billion. Of which 5,000 are SACCOs and 230 have Front Office Service Activities (FOSAs). The SACCO sector has mobilized over Kshs 200 billion in savings which is about 30% of the national savings. Kenya accounts for 70%of Africa's continental portfolio hence being ranked 7th worldwide. Kenya sits in the group ten largest co-operative movements (G10) member's countries,(SACCO Congress, 2010).

However even with these developments they still don't meet the demands for the loan applications. Muthoni (2011) observed that members are not satisfied with the shorter repayment period, and that pegging loan on deposits was denying member's money which they had ability to pay. The Kenya Union of Savings and Credit Cooperative reported that the consequences of the global financial crisis have led to reduced growth savings: 7.6 per cent growth in savings in 2008 compared to 31.2 per cent in 2007, (WOCCU, 2009). It was reported in interviews that SACCOs in Kenya have reported

increase in demand for loans, but have exercised caution in responding to requests (WOCCU, 2009).

The World Council of Credit Unions (WOCCU) estimates that the Kenyan SACCO sector is the largest in Africa; in 2005, SACCOs had an estimated membership of more than 2.5 million, share capital and deposits of US$1.66 billion, and a loan portfolio of US$1.24 billion (WOCCU, 2005). With over KES 230 Billion in assets and a savings portfolio estimated at KES 190 Billion, the SACCO movement in Kenya constitutes a significant proportion of about 20% of the country's savings. The Kenyan SACCO sector has been observed to contribute greatly to the total financial industry and consequently the economy. It contributes to over forty five percent of the nation's Gross Domestic Product (MOCD&M, 2010). With the enactment of the SACCO Act, 2008 (SSA) and the subsequent establishment of the SACCO Societies Regulatory Authority (SASRA), SACCOs have been brought under regulation and supervision.

Further, the Vision 2030 strategy requires the financial services sector to play a critical role in mobilizing the savings and investments for development of the country by providing better intermediate between savings and investments than at present. This sector will assist the mobilization of investment funds required to implement the projects of Vision 2030. SACCOs are among the financial services strategies to be implemented in this exercise. Services provided by SACCOs and other major financial institutions will play a crucial role in improving the reach and access of financial services (currently only 19% of Kenyans have access to formal financial services).

1.1.4 Interplay between Financial Performance and Liquidity Management

Financial performance is the result of a firm's policies and operations in monetary terms. It is also the result of different activities undertaken by an organization. Common examples of financial performance include operating income, earnings before interest

and taxes, and net asset value (Cole, 2004). There are two major reasons as to why organizations should have financial performance measurement. First, is to produce financial statements at the right time. Second, is to provide statistical information about the performance of the scheme, which must be used to improve that performance, (Johnson &Scholes, 2007).Liquidity level indicates an institution's ability to fund increase in assets and meet obligations when they fall due. The regulatory requirements require DTSs to maintain liquidity level of 15 percent of their savings deposits and other short term liabilities in liquid assets. While the withdrawable savings deposits do not comprise significant portion of the balance sheet, DTSs are usually faced with liquidity mismatch when issuing loans based on multiplier of savings. However, there has been a shift from the multiplier factor to earnings especially with employer based DTSs.

The Sacco Societies Act (Cap 490B) and the Regulations made thereunder provide for key prudential norms and requirements which DTS are required to fully comply with in order to maintain financial stability. The key requirements include core capital and capital adequacy ratios, asset quality, non-earning assets, liquidity requirements, limits on external borrowing and equity investments; and generation of earnings. These are supplemented by regulatory guidelines issued by the Authority from time to time, together with financial best practices, (SASRA, 2014). The regulatory framework requires DTSs to maintain minimum core capital of Kshs 10 million, together with the following capital adequacy ratios: core capital to total assets, core capital to deposit liabilities and institutional capital to total assets at the ratios of 10 percent, 8 percent and 8 percent respectively.

In terms of financial performance, the sub-sector recorded growth in the total asset base of the 181 DTSs which grew by 17.2% to Kshs 301.5 Billion from Kshs 257.4 Billion recorded in 2013. This growth was funded principally by members' deposits which also grew by 12.7% to Kshs 205.9 Billion from Kshs 182.7 Billion in the previous year. However, the non-performing loans increased from 4.7% recorded in 2013 to 5.74%2014This deterioration in loan performance was mainly experienced in the

agriculture-based DTSs and attributed to reduced tea bonus payments, adverse weather conditions and general crop failure, (SASRA, 2014).According to SASRA, the regulations are meant to improve the competitiveness of SACCOs by setting financial and operating standards commensurate to the deposit taking business conducted by SACCOs. This is ultimately expected to drive efficiency and improve the level of savings in the SACCOs as envisaged in the financial sector strategy in vision 2030. SACCOs regulations and performance relate in that the regulations are meant to set specific requirements on the tools used to measure performance (PEARLS) leading to a direct relationship (Ngui, 2010).

Nyabwanga (2011), describes cash management as the process of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a point in time. Efficient cash management involves the determination of the optimal cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little (Ross *et al*., 2008).There is need for careful planning and monitoring of cash flows over time so as to determine the optimal cash to hold.

1.2 Statement of the problem

SACCOs are found in almost all sectors of the economy. The Ministry of Cooperative and marketing estimates that about 80% of the Kenyan population derives their income either directly or indirectly through SACCO initiatives. It is estimated that a significant 24.6million people (63%) participate either directly or indirectly in SACCO enterprises. The government has made a significant initiative to support co-operative movements through legislation so as to achieve the millennium development goals and vision 2030 objectives of increasing financial inclusion. Deposit Taking SACCOs (DTSs) remain competitive in the interests they charge their membership in respect of loans and other credit facilities advanced, compared to interest rates charged by banking institutions. This is important because it emphasizes the critical role of DTSs as alternative channels

of comparatively cheap credit facilities to the Kenyan population. It also shows the potential of DTSs as a rich alternative source of capital for start-ups or other business expansions ventures, (SASRA Report, 2014).

According to (Sambasivam, 2013), the deposit and loan portfolio in SACCOs amounts to about 34 percent of national savings and about 24 percent of outstanding domestic credit (CBK Report, 2008). It is undeniable fact that member's loan demand is very high and incompatible compared with the availability of funds. This follows that SACCOs face a risks arising from liquidity shortage and this has been a major cause of failure of many financial cooperatives (Sambasivam, 2013). SACCOs convert immediately available savings deposits into loans with longer maturities.

Nyabwaga *et al*., (2011), in their study on the effect of working capital management practices on financial performance contend that working capital management routines were low amongst small scale enterprises as majority had not adopted formal working capital management routines and also the study corroborates that there is a positive relationship between working capital management practices and financial performance. In addition, Clement *et al*., (2012), in their study on financial practice as a determinant of growth of SACCOs wealth found that growth of SACCO's wealth depended on financial stewardship, capital structure and funds allocation strategy. Both studies did not address the issue of cash management, loan repayment and investment on non-core activities which the current study tries to address.

Scholars (Hakelius ,2006; Kiaritha, 2009; Unal, Guclusoy& Franquesa,2009; Bhuyan, 2007; Nyoro & Ngugi, 2007; Chombo, 2009; Pollet,2009) have conducted studies on financial performance within the SACCO movement and using various variables namely; competition from commercial banks; members' royalty and active participation; financial, organisational, educational factors, membership and legislative support; members satisfaction and members participation; economic factors, management committee and staff members; voice and effective representation of SACCO's

respectively as key issues contributing to the financial performance and survival of SACCOs.

The Sacco Societies Act requires DTSs to hold and maintain minimum liquidity, develop and implement contingency liquidity plans so as to effectively serve the members. This has led to situations where the DTSs borrow expensively from commercial banks to bridge temporary illiquidity and this has evidently threatened financial stability of the DTSs, and hence safety of member deposits. The spiral effect is the undermining of the government's policy goal of promoting the financial stability and hence efficiency and access to financial services through Sacco societies. In particular, this structural problem has negatively impacted on the pricing of credit facilities to members, as DTSs continue to substantially depend on expensive commercial banks loans, and inefficient contingent liquidity plans. In Kenya, SACCOs do not have access to the lender of last resort, the Central Bank of Kenya. So in times of market difficulties and constrains they have nowhere to get the asset of cash. This makes them prone to the liquidity shortage, and no matter how small, can cause great damage to a savings institution (Monnie, 2009). It is against this background that a study should be carried out on effects of liquidity management and regulation on financial performance of deposit taking SACCOs in Kenya.

1.3 Objective of the Study

The study addressed the following objectives.

1.3.1 General Objective

To determine the effect of liquidity management on financial performance of the deposit taking SACCOs in Kenya.

1.3.2 Specific Objectives

1. To find the effects of cash management on financial performance of deposit taking SACCOs in Kenya.
2. To examine the effects of Loan Repayment on financial performance of deposit taking SACCOs in Kenya.
3. To assess the effects of investment in non-core business on financial performance of the deposit taking SACCOs in Kenya.
4. To establish effects of liquidity decisions on financial performance of deposit taking SACCOs in Kenya.
5. To evaluate the effects of management competency on financial performance of deposit taking SACCOs in Kenya.
6. To determine the moderating effects of SACCO regulation on the relationship between Liquidity Management and financial performance of deposit taking SACCOs in Kenya.

1.4Research Hypothesis

H_{O1}: Cash management does not affect financial performance of deposit taking SACCOs in Kenya.

H_{11}: Cash management affect financial performance of deposit taking SACCOs in Kenya.

H_{O2}: Loan Repayment has no influence on financial performance of deposit taking SACCOs in Kenya.

H_{12}: Loan Repayment has influence on financial performance of deposit taking SACCOs in Kenya.

H_{O3}: Non-core investment has no effect on financial performance of the deposit taking SACCOs in Kenya.

H_{13}: Non-core investment has effect on financial performance of the deposit taking SACCOs in Kenya.

H_{O4}: A Liquidity decision does not contribute towards financial performance of deposit taking SACCOs in Kenya.

H_{14}: Liquidity decisions contribute towards financial performance of deposit taking SACCOs in Kenya.

H_{O5}: Management competency does not influence financial performance of deposit taking SACCOs in Kenya.

H_{15}: Management competency influences financial performance of deposit taking SACCOs in Kenya.

H_{O6}: SACCO regulation has no moderating effect on financial performance of deposit taking SACCOs in Kenya.

H_{16}: SACCO regulation has moderating effect on financial performance of deposit taking SACCOs in Kenya.

1.5Significance of the Study

Since Kenya is a growing economy with a target of becoming a middle income economy under vision 2030, there are a number of beneficiaries to this research. First beneficiaries are the SACCOs themselves in terms of using the research findings to implement the liquidity management strategies established towards improved financial performance in the financial competitive market. The second beneficiary is the County Government and National Government in the sense of regulation adherence, member fund protection and ensuring the institution contributes towards the development of the economy towards achievement of vision 2030. The third beneficiary is the regulation body (SASRA& WOCCU) that ensures SACCOs are efficiently managed with established financial and governance structures, adherence to accepted financial indicators like PEARLS and CAMEL, hence it will put control measures to ensure findings are applied by the affected institutions and finally is the institution of high learning in extension of the academic knowledge on the growth and expansion of institution for the benefit of all the academicians.

This study shall have policy implications and recommendations which can be used by government policymakers in structuring policies to create an enabling environment to SACCO operations in the country. Scholars and researchers shall find this study quite of interest due to the gaps for further research that shall be produced at the end of this study. Excerpts of this study will be published in renowned journals and will also be available within the University repository systems for access to researchers.

1.6Scope

This study established the effect of Liquidity Management on financial performance of deposit taking SACCOs in Kenya. The sample was drawn from deposit taking SACCOs registered by SASRA regulatory Authority and published in SASRA website. The period for conducting the research was from August 2013 to September 2015. This study

did not cover other forms of co-operatives. The scope was also limited to the stated objectives of the study which spells out the variables studied.

1.7 Limitations of the Study

The study had the following limitations; it focused on Deposit Taking SACCOs in Kenya and also considered five variables as the determinants of the financial performance of deposit taking SACCOs in the Kenya whereas there could be other factors. Also, the study was not able to carry out a census of SACCO members but instead sampling was used. Due to the limitations of using samples, care was taken to ensure that the sampled respondents are representative of the population in order to arrive at reliable generalizations. The study also considered only the financial performance of SACCO, whereas, there could be non-financial indicators of performance. Those filling the study also feared that the findings of the study could be availed to their competitors; however, I assured them that the data was used for academic purposes only.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter some theoretical literature is presented outlining some of the factors affecting liquidity management of SACCOs. Theoretical framework is provided showing a buildup of key theories supporting the independent variables. A conceptual framework is provided showing proposed relationship between the independent variables and dependent variables. This section is followed by empirical studies where various scholars and researchers are quoted including their contributions to the literature of SACCOs. Then an operational framework is illustrated which identifies the quantifiable parameters derived from independent variables and finally the research gaps are identified which will form the key areas the research will be built on.

2.2 Theoretical Framework

Kotler & Gary (2005) described theoretical framework as a collection of interrelated concepts such as in a theory to guide a research work as it determines the items for measurement and the statistical relationships being studied. A theory is a reasoned statement or group of statements, which are supported evidence meant to explain some phenomena. The researcher should be conversant with those theories applicable to his area of resea Kyotomotho & Tromp, 2009, Smyth, 2004). According to (Trochim, 2006; Agular, 2009; & Tomo, 2006), a theoretical framework guides research, determining what variables to measure, and what statistical relationship to look for in the context of the problems under study. Thus, the theoretical literature helps the researcher see clearly the variables of the study; provides a general framework for data analysis and helps in the selection of applicable research design.

2.2.1 Cash Management theory

The purpose of cash management is to determine and achieve the appropriate level and structure of cash, and marketable securities, consistent with the nature of the business's operations and objectives (Brigham, 1999). Models on cash balance management have been proposed by (Baumol, 1952; Archer, 1966; Beranek, 1963; Miller & Orr, 1966; Pigou, 1970; Lockyer, 1973; & Gibbs, 1976) among others.William Baumol (1952), was the first person to provide a formal model of cash management. Erkki (2004), states that this model applied the economic order quantity (EOQ) to cash. Brokerage fees and clerical work form order costs while foregone interest and cash out costs from the costs of holding cash.

Baumol's model is however probably the simplest, most striped down and sensible model for determining the optimal cash position Ross (1990). (Lockyer, 1973) on the other hand modified Baumol's model to incorporate overdraft facilities. According to Lockyer's approach the total annual cash policy cost attributable to the use of overdraft facilities is given by the sum of total annual cash transfer cost, total annual overdraft cost and the total annual holding cost. However, Erkki (2004) criticized Lockyer's model for assuming overdraft facilities, which are not automatic especially for firms with poor credit rating. The model also assumes disbursements are even over the planning period.

The cyclical nature of cash is recognized by (Archer, 1966) who reasons that apart from providing cash balance for transactional purposes, a cash balance should be provided for precautionary purposes, especially for seasonal activities that are unpredictable. In Archer's approach, costs related to overdraft facilities and capital costs of precautionary balances are compared to determine the optimum. Archer's approach is advantageous for it recognizes the cyclical nature of net cash flows of many firms.

According to Gibbs (2014), the determination of optimal cash balance involves a combination of investment and financial decisions. In Gibbs approach, cases where

demand for money is of a cyclical nature, a combination of short and long term borrowing should be used to avoid the use of long term funds to cover peaks arising from idle cash balance during periods of low cash demand. Gibbs (2014) contends that, the determination of the amount of buffer money to hold is seen as an investment decision. Gibbs approach emphasizes holding costs, costs of short-term and long-term borrowing and the costs of investment in marketable securities, (Erkki, 2004).

In order to do this a variety of activities need to be undertaken, because of the integrative nature of cash to the operation of the SACCO. Since most of the SACCO operations revolve around advancement of cash then it is imperative for a considerable minimum level of cash to be maintained. How a SACCO manages cash will definitely have implications on the liquidity of the SACCO. The theory therefore is of essence on the bases of the policy the SACCOs may have in place with regard to cash retention so as to avoid illiquidity.

2.2.2Free cash flow theory

Huseyin (2011), states that managers have an incentive to hoard cash to increase the amount of assets under their control and to gain discretionary power over the firm investment decision. Having cash available to invest, the managers do not need to raise external funds and to provide capital markets detailed information about the firm's investment projects (Huseyin, 2011). However, this could lead to manager undertaking investments that have a negative impact on shareholders wealth.

Managers of firms with poor investment opportunities are expected to hold more cash to ensure the availability of funds to invest in growth projects, even if the NPV of these projects is negative(Huseyin,2011). This would lead to destruction of shareholder value and, even if the firm has a large investment programme and a low market-to-book ratio. Thus, using the market-to-book ratio as a proxy, there is high likelihood that the relation between investment opportunities set and cash holdings will be negative. This is critical in management of liquidity in the firm and ensuring there is a balance between meeting

the current obligation to mitigate liquidity short fall and investing in the interest of shareholders wealth maximization (Huseyin, 2011).

2.2.3Stewardship Theory

According to Odhiambo (2012) a steward protects and maximizes shareholders wealth through firm performance, 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. Stewardship theory emphasizes on the role of management being stewards, integrating their goals as part of the organization (Davis et al., 1997).

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 behavior (Davis *et al*., 1997). This theory has a great link to the liquidity management of SACCOs in that managers must be competent since they are employed as stewards of the SACCOs. Also they need to ensure the level of delinquent loans is minimized as stewards of the organization.

2.3 Conceptual Framework

According to Balachander and Soy (2003), a conceptual framework is a group of concepts that are systematically organized in providing a focus, rationale and a tool for interpretation and integration of information. This is usually achieved in pictorial illustrations.

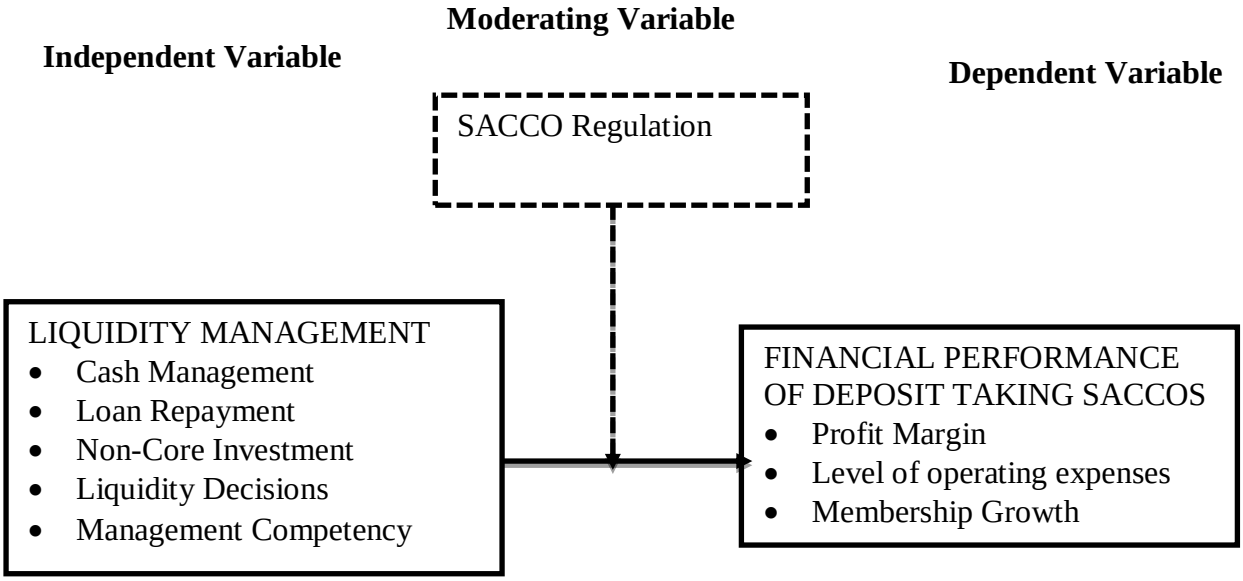

Figure 2.1: Conceptual Framework of Liquidity Management, SACCO Regulation and Financial Performance of Deposit Taking SACCOs in Kenya

2.3.1Cash Management

Pandey (2004), describes cash management as the process of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a point in time. Ross *et al*. (2008), as cited by Nyabwanga (2011) asserts that efficient cash management involves the determination of the optimal cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little. Atrill (2006), there is need for careful planning and monitoring of cash flows over time so as to determine the optimal cash to hold. A study by (Kwame, 2007) established that the setting up of a cash balance policy ensures prudent cash budgeting and investment of surplus cash. This finding agree with the findings by (Kotut, 2003) who established that cash budgeting is useful in planning for shortage and surplus of cash and has an effect on the financial performance of the firms. The assertion by (Ross *et*

al., 2008) that reducing the time cash is tied up in the operating cycle improves a business's profitability and market value furthers the significance of efficient cash management practices in improving business performance.

Erkki(2004),defined cash management as a part of treasury management, which is defined as a part of the main responsibilities of the central finance management team. Huseyin (2011), highlighted specific task of a typical treasury function such as: cash management, risk management, hedging and insurance management, account receivable management, account payable management, bank relations and investor relations.(Huseyin, 2011)found that(Kytönen, 2004) definition is consistent with the (Srinvasan& Kim,1986) classification of cash management areas as cash balance management, cash gathering, cash mobilization and concentration, cash disbursement, and banking system design. Cash balance management includes management of cash position, short-term borrowing, short term investing, cash forecasting. (Huseyin, 2011) opinion is that the classifications of cash management by (Tiegen's, 2011; Srinvasan & Kim's, 2011) are closely related concepts. (Huseyin, 2011) classifies cash management as operating transactions and financial transactions. The operating transactions include: accounting ledgers, invoicing, terms of sales - cash collection, cash control and processing as well as cash forecasting. The financial transactions include: optimization of cash, short-term investments, short term borrowing, interest rate risk management, exchange rate risk management, payment systems, information systems and banking investor relations (Kytönen,2004).

The cooperative form is therefore regarded as having enormous potential for delivering pro-poor growth that is owned and controlled by poor people themselves (Jared, 2013).Nevertheless it is recognized that, lacking capital and business management capacity, cooperatives have had a disappointing history in developing countries(Birchall, 2004). There is an argument that it is the broader characteristics of cooperative organization such as social ownership, people-centered objectives and their community base, rather than their precise organizational form should be advocated.

According to (Mwaura, 2010) industry statistics in Kenya show that an estimated 60 SACCOs are way below the required minimum capital levels — and are expected to turn to the members for money needed to reach the threshold. Contributing money for the capital build-up will force members to take a portion of their monthly take-home or forego annual dividends in the next four years in support of the initiative. Nation staff SACCO has, for example, asked its members to increase their share capital to Kshs 6,000 from Kshs 1, 000 beginning August 2010.

As observed by (Steve, 2010) Maisha Bora SACCO withheld part and to some, whole dividends in the year 2009 and encouraged members to invest in beefing up the core capital in order to meet the SACCO liquidity demands. Haileselasie (2003), in his study about cooperatives in Saesi-Tsaeda-Imba, found out that 78.7 percent of the members became member in cooperatives through mobilization and persuasion by the civil societies such as Farmers, Youth and Women's Associations. As a result, the members' were not aware of their duties and rights within the cooperative societies. According to Haileselasie's (2003) findings, out of the total respondents members' participation in the annual meeting was 12.2 per cent and 68.8 per cent of the total respondents had bought only one share. The result of the study revealed that the overall participation of members in co-operatives was weak (Haileselasie, 2003).

Darek (2012), states that the problem of access to capital has become even more challenging in emerging markets for a variety of reasons (Benedict & Venter, 2010; Cunningham & Rowley, 2010; Klonowski, 2005; Abor & Biekpe, 2006; Tagoeet al., 2005). First, firms in emerging markets operate in an environment of imperfect legal infrastructure (Cunningham & Rowley, 2010; Klonowski, 2005). Capital providers must often agree to contractual terms that are suboptimal for them. Second, financial disclosure in emerging markets continues to be relatively poor (Sami & Zhou, 2008; Zhou, 2007; Klonowski,2007).Darek (2012),observed that many countries report financial results under their own financial standards and regulations, which are different from those seen in international accounting standards; consequently, auditing firms must

often recast the financial statements of firms operating in such markets. Third, asymmetry of information and moral hazards are more pronounced in emerging markets (Klonowski, 2007; Tagoe*et al*., 2005).

Access to information is a greater challenge as sources of information on firms, the competitive posture of market players, and market size and growth rates are more difficult to find (Abor & Biekpe, 2006; Tagoe*et al*., 2005). Fourth, firms operating within emerging markets have more problems related to corporate governance. The corporate governance concerns are more severe and more difficult to address than those experienced by firms in developed economies (Black *et al*., 2010; Klonowski &Golebiowska-Tataj, 2009; Parisi*et al*., 2009; Klonowski, 2007). Key issues may include: personal use of firm's assets, unaccounted cash withdrawals and appointment of family members in the institutions.

2.3.2Loan Repayment

Jared (2013), in his study observed that the rapid growth of the SACCO movement in Kenya can be pinned on the fact that they have for long periods specialized in offering cheap loans at an 'affordable' repayment history to their clients. This gesture has attracted an exodus of clients from the formal financial institutions such as banks seeking their services (ACCOSCA, 2012). Some SACCOs in Kenya have adopted Front Office Services Activities (FOSA) to offer the services they render to clients. FOSAs have proved to be one of the key profit centers for SACCOs and members have appreciated the services offered by these FOSAs. Through the full utilization of the FOSA network, SACCOs provide their members with the full range of basic financial services and consolidate these services to the full satisfaction of members. The introduction of FOSA has contributed positively to the performance of SACCOs through improved profitability which has led to the declaration of a high dividend rates to the members (IFSB, 2005).(Mwaura, 2005) insists that lack of credit

follow up, credit analysis, and hostile lending of money are some of the factors that have contributed to financial gap and poor performance.

In Kenya, following the liberalization of the financial sector in the 1990s (Omino, 2003), the back office model of SACCO operations was found to be inadequate and as a result, many SACCO societies introduced the Front Office Services Activities (FOSA) alternatively known as the SACCO Savings Account (SASA). This was led by a number of factors including the need to solve the problem of non-remittance through the check-off savings system and was aimed at among other things, improving the SACCO societies' liquidity and the promotion of the owner -user principle. By around 2003, SACCO societies in Kenya were already taking deposits from persons not drawn from the common bond, that is, public deposits, (ICA, 2003).

Max (2012),states that regular share accounts (members' savings) constitute the largest part of a credit union's funding. In 2004 for instance, 86.1 percent of American credit unions funding came from the members' savings (Federal Reserve Bulletin, 2004). One way in which members remit their savings to a SACCO is through the regular share accounts. A regular share accounts is the savings accounts of members, (Mishkin*et al*, 2007). They are types of payroll savings plans by which employees can automatically set aside a portion of their salary in a savings account,(Rose, 2003). Customers cannot write cheques against these accounts although they can withdraw funds without giving prior notice or incurring any penalties, (Kwame, 2010). However, in Kenya as many other countries, shares are not withdrawable and are used as security for loans to members, (Omino, 2003). Additionally, customers do not receive any interest on these accounts, (SACCOL, 2011) but instead receive dividends that are not guaranteed in advance but are estimated, (Rose, 2003). The share account is analogous to a passbook savings account and its return is referred to as a dividend, although it is treated as interest for individual income tax liability purposes.

A study by (Landi & Venturelli, 2002) analyzed the determinants and effects of diversification on efficiency and profitability amongst the European banks and found out that diversification positively affected efficiency in terms of profits, costs and revenue growth. In an earlier study by (DeYoung *et al*, 1999)on the effects of product mix (diversification) on earnings volatility of commercial banks, it was found that bank's earnings grow more volatile as banks tilt their product mixes towards fee based activities and away from traditional intermediation services.

2.3.3Non-Core Investment

According to (FSD, 2009) SACCOs should limit their investment on non-productive assets such as land, buildings, vehicles, furniture and cash, to a maximum of 5% of the total assets and thereby invest 95% of their funds into those assets that earn a return greater than the cost of funds and operating costs. More so, prudent funds allocation strategy is an important financial practice function in any SACCO society. This aspect usually involves decisions to commit the SACCOs funds to planned investment options. SACCOs need to make decisions to invest their funds more efficiently in anticipation of expected flow of benefits in the long run.

To finance their loan portfolios, SACCOs have traditionally accumulated savings of their members, (Kwame, 2010), until recently when the financial sector liberalization of 1990s allowed them to diversify their financing sources by offering Front Office (FOSA) Services, (Owen, 2007). Indeed, over 72 percent of credit unions funds came from customers (members) savings, share draft accounts and share certificates ,(Mishkin *et al*, 2007) and unlike commercial banks, credit unions seldom purchased funds in the capital or money markets. However, following the recent deregulation of the industry which liberalizes financial institutions operations, credit unions have now become an aggressive competitor of commercial banks and savings associations for not only consumer installment loans but also savings deposits,(Rose , 2003). For instance, the Depository Institutions Deregulation and Monetary Control Act

(DIDMCA) of 1980 gave the US credit unions the power to offer checkable deposits (share drafts) and home mortgage (real estate) loans in order to be able to compete effectively with commercial banks, National Credit Union Administration (NCUA, 2010).

Such investment decisions generally include expansion, acquisition, modernization and replacement of long-term assets (Maina, 2007). Thus, the SACCOs value is deemed to increase where the investments are profitable and add to the wealth in the long run. This situation is obtained where the SACCO involves itself with investments that yield benefits greater than the opportunity cost of capital. Cooperative societies could reduce average fixed transaction costs that keep small farmers out of the markets (Poulton & Lyne, 2009). Ortmann & King (2007) explained that Cooperatives have significantly contributed to reduce poverty, enhance empowerment and create employment. The societies have also an important impact on rural development in terms of employment creation, rural water supply, rural electrification, market development, income enhancement and social services improvement (Chambo, 2009).

Sammy (2013) describes financial mismatch as the gap in the provision of money for medium-sized, fast growing organizations. These organizations are fast growing to the extent that they cannot sufficiently serve their members for additional funds nor obtain sufficient bank funding. At the same time, they lack the capability to launch their operations on the stock exchange (London School of Economics, 2012). The rate in most cases has been below 30 percent as opposed to the recommended 70 percent repayment rate (Sammy, 2013).Non remittance and delayed remittance of cooperative dues by employers has led to inconveniences and loss of income by the societies (Wanyama, 2007).

To raise more funds, the modern day credit unions have expanded their investments in services,(Rose, 2003); some sell life insurance, others act as brokers for group insurance plans where state permits. Many credit unions are now active in

offering 24 – hour automated services, financial planning services, retirement savings, home equity and first mortgage loans and payment services, all with a view to increasing their income reserves. However, credit unions' permissible investments in securities are limited to a list prescribed by state regulations, (Rose, 2003). For instance, the SACCO Societies Act of Kenya, (The SACCO Societies Act, 2008), specifies the various investments that SACCOs in Kenya can make. Sec 38 (1) of the Act states that "the funds of a SACCO society may be invested in securities, obligations or other debt instruments issued or guaranteed by the government or any agency of the government; deposits, obligations or other account s of deposit - taking institutions under the Banking Act (Cap 488); shares, stocks, deposits in, loans to or other obligations of any SACCO society or cooperative society.

Sec 38(3) of the Act prohibits a SACCO society from purchasing or acquiring any land or any interest or right therein except when it's reasonably necessary for the purpose of conducting the SACCOs deposit -taking business. However, credit unions rely heavily on government securities and savings deposits to provide liquidity to meet deposit withdrawals and accommodate members credit needs, (Rose, 2003). The uses of funds for SACCOs are the SACCOs investments which include loans - a major share - , financial investments, liquid investments, non-financial investments and other investments in regulated financial institutions, (Kenya SACCO network, 2011).

2.3.4Liquidity Decisions

Jared (2013) asserts that as SACCO societies grow and become regulated, the need to build capital reserves becomes a requirement not only from the regulatory authorities but as the most cost-effective financing option for new products, services, marketing and branch network expansion (WOCCU) &FSD Kenya, (2008). The NCUA's CAMEL (Capital adequacy, Asset quality, Management, Earnings and Asset/Liability management) rating system, (NCUA, 1994), provides that capital reserves serve to support growth as a free source of funds. Capital reserves represent not only as a cushion

for uncertainties such as asset losses and adverse economic cycles, but it also provide resources for long-term investments and funding for provision of more services to members (WOCCU& FSD Kenya, 2008).

According to (Chowdi, 2008) in order to account for financial market developments as well as lessons learned from the turmoil, a study was undertaken to review some 2000 sound practices for managing liquidity in financial organizations. Guidance has been significantly expanded in a number of key areas. In particular, more detailed guidance was provided on: the importance of establishing a liquidity risk tolerance; the maintenance of an adequate level of liquidity, the necessity of allocating liquidity costs, benefits and risks to all significant business activities; The identification and measurement of the full range of liquidity risk; the design and use of severe stress test scenarios; the need for a robust and operational contingency funding plan; the management of intraday liquidity risk and increased public disclosure in promoting market discipline. Clement (2012), asserts that financial stewardship being the routine financial decision-making of SACCOs, should embrace sound business practices. This should also revolve around the SACCOs financial discipline with a profound influence on the success of all businesses conducted by the SACCOs (Mudibo, 2005).

More so, prudent funds allocation strategy is an important financial practice function in any SACCO society. This aspect usually involves decisions to commit the SACCOs funds to planned investment options. SACCOs need to make decisions to invest their funds more efficiently in anticipation of expected flow of benefits in the long run. Such investment decisions generally include expansion, acquisition, modernization and replacement of long-term assets (Maina, 2007). Thus, the SACCOs value is deemed to increase where the investments are profitable and add to the wealth in the long run. This situation is obtained where a SACCO involves itself with investments that yield benefits greater than the opportunity cost of capital.

The mechanisms that explain why liquidity can suddenly evaporate operate through the interaction of funding illiquidity due to maturity mismatches and market illiquidity. As long as a financial institutions assets pay off whenever its debt is due, it cannot suffer from funding liquidity problems even if it is highly levered. However, financial institutions typically have an asset-liability maturity mismatch and hence are exposed to funding liquidity risk. A funding shortage arises when it is prohibitively expensive both to borrow more funds (low funding liquidity) and sell off its assets (low market liquidity). In short, problems only arise if both funding liquidity dries up high margins/haircuts, restrained lending) and market liquidity evaporates fire sale discounts (Denis & Muganga, 2010).

As Jean-Laurent (2008), observed, Liquidity ratios may have a mixed impact on the capital structure decision. Companies with higher liquidity ratios might support a relatively higher debt ratio due to greater ability to meet short-term obligations (TOT). On the other hand, firms with greater liquidities may use them to finance their investments (POT). Therefore, the companies' liquidities should exert a negative impact on its leverage ratio (Ozkan, 2001). Moreover, the liquid assets can be used to show to which extent these assets can be manipulated by shareholders at the expense of bondholders (Prowse, 1991).

2.3.5 Management Competency

Over the years, Kenyan SACCOs have catered for the needs of their membership. However, SACCOs are facing competition from banks which is further compounded by governance and financial management challenges. These issues have tainted the image of the SACCO sector. The board is the overall governing authority of a SACCO consisting of elected officials who oversee the running of the Cooperative (WOCCU, 2009). SACCO's management has been advised to adopt good leadership structure that will encourage members to save and claim better returns from their investment. Several SACCO organizations are trying to meet the management standard

set for Cooperative societies in the ministry of Cooperative Development and Marketing. In the next three to five years all Cooperative societies are expected to improve administrative issues such as capital and asset size, service profile, assessment of competition, systems and technology, human resource plan, marketing strategy, facility requirements, organizational structure & culture, and Service Delivery Systems (Mwaura, 2005).

While this process was put in place to ensure members are empowered to run their SACCOs, there are several shortcomings related to this practice. Of concern is when elected officials are not necessarily qualified to assume leadership positions and fiduciary responsibilities. This has contributed to a myriad of problems which has seen many Kenyans lose their savings when their SACCOs go bankrupt because of weak governance and financial management. This failing is further complicated by the fact that the sector is not adequately regulated (FSD, 2009).Insiders refer to those people directly or indirectly connected to the ownership or management of the MFIs, including directors, officials, employees and shareholders (Staschen, 2003). The argument to consider insider lending restrictions in prudential regulation relies on the fact that any operation related to these parties could lead to conflict of interests, misuse of MFI resources or even fraudulent practices. It is important to highlight that insider lending is a problem that could arise in any financial institution and not only in traditional ones (Staschen, 2003).

Odhiambo (2012), emphasizes that good governance can improve the performance of a SACCO and help assure its long term survival. The issue of corporate governance has become of increasing interest to SACCOs as it is considered to be one of the weakest areas in the industry (CSFI, 2008). Branch and Baker (1998) comprehensively investigated governance problems in SACCOs and found that as SACCOs become larger and more complex, they require specific knowledge and skills to make a range of specialized decisions. Individual owners are not likely to possess the required

managerial skills and technical knowledge. This may require that managers be hired to make the critical management decisions (Fama and Jensen, 1983).

ACTED has made good use of the innovativeness in SACCOs through making transfers for CFW infrastructure restoration and putting in place cash grants and projects for IGA across Kenya. Besides this, ACTED is also offering capacity building skills to SACCO staff with an aim of efficiency, coverage and transparency as well as safeguarding some assets e.g. safes that will ensure an accountable and successful financial management and disbursing funds as budgeted. Capacity building entails several topics, interlaid, cash handling system, customer care, monitoring, management, and control support to both managers and the staff (Principles of corporate Governance in Kenya, 2000).

2.3.6 SACCO Regulation

SACCOs in Kenya are required to adhere to regulations set in the SACCO Regulation Authority (SASRA). The management has to present the capital adequacy return reports, liquidity statement report, statement of financial position and statement of deposit return as well as return on investments report which compares land, building, and financial assets to the SACCOs total assets and its core capital. Despite the critical role-played by SASRA on improving management of SACCOs, there has been no study that has focused on establishing the impact of SASRA on financial performance of SACCOs. As Clement (2012) asserts, the SACCO Societies Act of 2008 was enacted later to provide for the licensing, regulation, supervision and promotion of savings and credit co-operatives by the SACCO Societies Regulatory Authority. Thus, this Act provides for the establishment of the SACCO Societies Regulatory Authority (SASRA) whose functions include licensing SACCOs to carry out deposit -taking business as well as regulating and supervising SACCOs (Republic of Kenya, 2008), (Wanyama, 2009).

These deposit taking SACCOs are actually observed to be controlling more than 78% of the total deposits and assets of the SACCO industry, IMF (2011), "Financial stability issues in emerging markets and developing Economies". The SSA and the Regulations requires SACCOs already operating Front Office Services Activity (FOSA) as at the date of publication of the regulations which was June 2010 to apply for license with SASRA. Out of the 219 SACCO societies that were authorized to operate FOSA, 199 applied for license, 13 communicated their decision to discontinue FOSA while 7 did not submit license application by the deadline of 17th June 2011 (SASRA Press Release, 2011). The policy objective of establishing prudential regulation of deposit taking SACCO societies was to enhance transparency and accountability in the SACCO subsector, which is consistent with the ongoing reforms in the financial sector whose ultimate aim is to expand financial access, encourage efficiency and enhance financial stability of financial service providers in Kenya.

Challenges to the successful implementation of the new regulatory framework differ significantly both because of the size and diversity of the SACCO societies, with inadequate technical skills, both at board and management levels being identified as the key challenge (SASRA Press Release, 2011). Other key areas, identified by SASRA that need to be continually addressed include governance, management capacity, financial management, credit management and automation. While it must be appreciated that prudential regulation is a prerequisite to integration and mainstreaming of the SACCO societies in the Kenya financial sector, the challenges facing deposit-taking SACCOs in regulatory compliance need to be identified and addressed to ensure that licensed SACCOs exploit their full potential and deepen financial access in the country.

Financial Cooperatives (FCs)face a specific set of issues that arise from their form of ownership (Cooperative) and their generally small size. FCs in developing countries are typically constrained by the lack of autonomy from government interference, anachronistic legal frameworks, lack of an appropriate regulatory framework, and poor supervisory capacity of the entity responsible for supervising FCs. Legal frameworks often prevent the adoption of better corporate governance practices; hinder the mergers, acquisitions, or splits needed to operate competitively in the market; and inhibit broader diversification.

Regulatory frameworks often lack the prudential regulations that are critical for regulating financial institutions, and supervisory agencies often lack the skills and the financial resources to effectively supervise FCs. (ACCOSCA, 2012). Introduction of new issues into an already existing system ordinarily poses challenges of adapting to the same.

Laws and government regulations change from time to time and form the observation that almost to the end of the period given to the deposit taking SACCOs to apply for license not all SACCOs in this category have been licensed then challenges abound. (Mudibo, 2005) in "Corporate governance of Cooperatives in Africa" observed that the main issues affecting Cooperatives in East Africa included governance, inadequate human resource, weak regulation and inadequate supervision which was shared by (Mwangi, 2006) in a SACCO leaders forum on "Enhancing sound SACCO governance" whereby it was observed that limited product diversity, inadequate governance and management, unfavorable image, lack of performance standards and weak official supervision and regulation. The licensing requirements are designed to ensure that a SACCO society commencing FOSA operations has the minimum financial, systems and operational policies to enhance prudential management of the deposit taking business and thereby protect the member funds.

Jared (2013),agrees that these requirements are not new and it is evident from the license applications submitted to SASRA that majority of the SACCO societies have the systems and operational policies but they require to upgrade and align them to the Act and Regulations to enhance sound business practices (SASRA Press Release, 2011). Licensing also brings confidence in the SACCOs, which is a prerequisite for the SACCO sub sector to attract new members and professionals who have shied away due to perceived bad governance practices.

A prudentially regulated and financially sound SACCO business attracts new business, offers better financial services, effective governance mechanisms and lower risks of failure, for instance a number of government initiatives have approached SASRA to issue them with a comprehensive list of licensed SACCOs through which they can channel devolved funds (SACCO Briefs, 2011).

2.3.7 Performance of Deposit Taking SACCOs

According to SASRA, the SACCOs society regulations are meant to improve the competitiveness of SACCOs by setting financial and operating standards commensurate to the deposit taking business conducted by SACCOs. This is ultimately expected to drive efficiency and improve the level of savings in the SACCOs societies as envisaged in the financial sector strategy in vision 2030. SACCOs regulations and performance relate in that the regulations are meant to set specific requirements on the tools used to measure performance (PEARLS) leading to a direct relationship (Financial Sector Deepening, 2009).

As Nyabwanga (2011) asserts, despite the significance and the increased efforts by the government of Kenya and other stakeholders to establish by several researchers (Peel & Wilson, 1997; Padachi, 2006; Kotut, 2003) efficient management of working capital is pivotal to the health and performance of small firms hence their view that firms should employ the use of efficient working capital management practices as a strategy of improving their value. According to (the Cooperative Bank of Kenya Report, 2008), the

deposit and loan portfolio in SACCOs amounts to about 34 percent of national savings and about 24 percent of outstanding domestic credit.

The World Council of Credit Unions (WOCCU) estimates that the Kenyan SACCO sector is the largest in Africa; in 2005, SACCOs had an estimated membership of more than 2.5 million, share capital and deposits of US$1.66 billion, and a loan portfolio of US$1.24 billion (WOCCU, 2005).

Clement (2012) found that, the SACCO movement in Kenya is billed as the largest in Africa and among the top 10 globally (Wanyama, 2009). With over KES 230 Billion in assets and a savings portfolio estimated at KES 190 Billion. The SACCO movement in Kenya constitutes a significant proportion of about 20% of the country's savings.

SACCOs have thus become vital components of Kenya's economy and social development. Kenya has a long history of cooperative development that has been characterized by strong growth, thus making a significant contribution to the overall economy. Cooperatives are recognized by the government to be the major contributor to national development, as co-operatives are found in all sectors of the economy. With a total population of Kenya at approximately 37.2 Million (Republic of Kenya, 2008), it is estimated that 63% of Kenya's population participate directly or indirectly in cooperative based enterprises (MOCD&M, 2008). Indeed, the MOCD&M estimates that 80% of Kenya's population derives their income either directly or indirectly for cooperative activities.

2.3.8 Moderating Variable – SACCO Regulation

A moderator is a quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable, (Simon, 2006).Jin-Sun (2001), explains that in a correlation analysis framework, a moderator is a third variable that affects the zero-order correlation between two other variables (as cited in Baron, 1986). In analysis of variance (ANOVA) terms, a

basic moderator effect can be represented as an interaction between a focal independent variable and a factor that specifies the appropriate conditions for its operation (Baron, 1986). When predictor and moderator variables are interval or continuous, multiple regression Analyses are used for testing moderating effects.

Most commonly, researchers assume that a continuous moderator variable alters the relationship between the independent and dependent variables in a linear function (Baron, 1986). As Jin-Sun (2001) asserts, multicollinearity will be reduced by centering continuous predictor and moderator variables. This was accomplished by subtracting the sample mean from the respective variable, thereby obtaining a centered deviation score with a mean of zero. Centering the beta terms reduces the magnitude of the correlations between the independent variables, thus reducing multicollinearity, (Aldwin, 1994).

In this study, the researcher identified the variables so as to be able to measure and test the relevant relationships. This section therefore, deals with the Operationalization of independent and dependent variables of the conceptual framework. The main study variables were: cash management, loan repayment, non-core investments, liquidity decisions, management competency, SACCO regulation and financial performance. These variables were operationalized using questionnaire aimed at identifying the presence of key variable indicators.

Table 2.1: Operationalization

Variable	Operationalization/Indicators
Cash Management	• Cash budgeting • Members deposits • Liquidity management policy
Loan Repayment	• Gross loan portfolio • Loan delinquency • Loan products
Non-Core Investment	• Non-earning Assets • External borrowing ration • Non-financial Investments
Liquidity Decisions	• Dividend policy • Investment decisions • Members deposit protection
Management Competency	• Strategic direction • Credit administration • Internal controls
SACCO Regulation	• Non Compliance • Lending Policy • Membership oversight
Financial Performance of Deposit taking SACCOs	• Profit Margin • Level of operating expenses • Membership Growth

Source: Author (2016)

Moderated relationships in social science research exist when the relationship between two variables, X and Y, varies depending on the value of a third variable Z, (Aiken & West, 1991; Jaccard & Turrisi, 2003).

2.4 Empirical Review

According, to Ondieki (2011), in his study on "The effects of external financing on the performance of SACCOs in Kisii District", he observed that major challenges inherent in the cooperative movement in Kenya included: poor governance, limited transparency in management of cooperatives, weak capital base and infrastructure weakness including ICT. The same opinion is shared by (Karim, 2012) "African SACCO Regulatory framework" whereby he observed that leadership or governance of a CFI determines to a large extent how the CFI responds to regulatory issues and how it operates within the regulatory framework. This requires that the BOD members file personal information return with the regulators.

According to (Odhiambo, 2013) in his study on the relationship between working capital management and financial performance of deposit taking savings and credit co-operative societies licensed by SACCO societies regulatory authority in Nairobi county. Interest rate on members' deposits as a measure of financial performance was used as the dependent variable. The independent variable (working capital management) was measured by cash conversion cycle, current ratio, debt ratio and turnover growth. The findings indicated that efficient working capital management leads to better financial performance of a SACCO, hence a positive relationship existed between efficient working capital management and financial performance variable.

A study on the role of financial management practices in the performance of public service vehicle savings and credit co-operative societies in Kenya was done by (Kinyua, 2013). The objectives of this study were to, describe the profile of P.S.V SACCOs, investigate the role of financial management practices in the P.S.V SACCOs in Nyeri South district, identify areas of financial management that are influential to performance

of P.S.V SACCOs, find out whether public transport SACCOs in Nyeri South District generate cash plans and budgets based on their specific priorities and to ensure that incoming financial resources facilitate the fulfillment of these priorities.

The findings show that public service vehicle SACCOs have better financial management practices as showed by the six indicators of better financial management. Members' funds are protected against loan delinquency by setting funds and provision for statutory reserve provided for through cooperative Act. SACCOs have effective financial structure, high rate of return and high Loan Repayment. Their signs of growth are indicated by positive change in the levels of profitability, turnover and capital. Better financial management practices have resulted to better performance of the SACCOs. The dividends payout for the members of the SACCOs is fairly high and is expanding, annually. The share capital level of the SACCOs has increased over the years of their existence. With expanding saving members are able to access credit facilities resulting to increased number of vehicles. The public service vehicle SACCOs have therefore continued to exist and grow over the years dominating the public transport sector.

According to Muriithi (2012), in his study on Practices and financial performance of savings & credit co-operatives societies in Nairobi county- Kenya. The study used regression analysis to find the relationship between financial planning, control, working capital management, and segregation of duties in finance function, SACCO management philosophy on operating styles and SACCO profitability. The study found out that most SACCOs have financial management policies that they use in their day to day operations. These policies were related to how profitable these SACCOs were and depending on how the management has applied them. It was noted that SACCOs have emphasized on profitability and most of them have put the best policies that have led to growth in the stakeholder's wealth.

Cash management and investing in profitable venture like real estates and marketable securities have become common in the SACCOs in their endeavor to create wealth. The

study found out that the key policies on optimal cash utilization and investments played a major role in good fin recommended that further research should look at the relationship between SACCO financial management practices and the SACCO movement growth in Kenya.

A study on Investigation into the Cash Balance Management Approaches in saving and Credit Cooperative Societies (SACCOs) in Nakuru County, Kenya by (Muriuki, 2013). The study's findings indicated that though a majority of SACCOs were conscious about the need to manage their cash balances very few had policies on cash balance management. SACCOs were found to manage cash in a haphazard manner and not even one cash management model was found to be used entirely. The study concluded that there was no significant difference in the cash management approaches used by the employee based and association based SACCOs.

According to Nyabwanga (2011), in his study on the effect of working capital management practices on financial performance: A study of small scale enterprises in Kisii South District, Kenya. The study concluded that working capital management practices have influence on the financial performance of SSEs, hence there was need for SSE managers to embrace efficient working capital management practices as a strategy to improve their financial performance and survive in the uncertain business environment. The study confirmed with other research findings that established a positive relationship between working capital management practices and financial performance.

According to Kifle (2011), in his study on the Management of Savings and Credit Cooperatives from the Perspective of Outreach and Sustainability, Evidence from Southern Tigrai of Ethiopia. The result of correlation analysis between independent variables and dependent variable showed that existence of strong positive correlation between financial performance (ROA) and the asset utilization. A moderate positive correlation relationship exists between operational efficiency and size of SACCOs

(assets size). Conversely, there is a significant negative correlation between financial performance (ROA) and the operational efficiency with correlation coefficients. The study also came out with a range of perspectives on the factors affecting the outreach and sustainability of SACCOs under study. Lack of awareness and poor saving culture, weak organizational arrangement and governance, policy and regulatory environment, weak institutional capacity, low capital base, lack of differentiated products, inappropriate loan security requirements, and threats from other financial institutions (MFIs) were among the factors affecting the outreach and sustainability of SACCOs.

According to Jared (2013), in his study on the challenges facing deposit-taking savings and Credit cooperative societies' regulatory compliance in Kenya. A case of the Gusii region. The study found out that the various challenges facing compliance in these institutions included non-separation of shares from deposits, high dependence on short-term external borrowing, lack of liquidity monitoring system, high investment in nonearning assets, inadequate ICT system, inadequate managerial competencies and political interference among others. The study realized that even with the challenges opportunities were available for compliant SACCOs including capital accumulation and agency business largely arising from access to Government funds for on-ward transmission to youth and women groups. The findings of this study are important for the particular organizations under study to address the challenges so as to improve regulatory compliance, the industry to anticipate and endeavor to overcome the challenges and also aid the regulatory Authorities to enhance on their mandate.

According Kabamba (2012), in her study on Liquidity management and growth of microfinance Institutions in Uganda (case study in Kibuku). The focus of the study was to evaluate liquidity management and growth of MFIs in Uganda. The purpose of the research was to establish liquidity and growth of MFIs in Uganda and the relationship between liquidity management strategies and growth of MFIs in Uganda. The findings

of the study revealed that if liquidity is well managed, the costs associated with it such as loss of public confidence; high administrative costs close of business will be dealt with. The need for sound liquidity management strategies is particularly critical since measures should be properly implemented. Conclusions drawn from the study showed that there was a positive relationship between liquidity management and growth of the institution. If liquidity management is properly managed, the costs associated with it will be minimized and this will drastically increase the growth of the micro finance institutions. Liquidity management may be a relatively unglamorous aspect of management, however, its inclusion as a strategy is likely to reap rewards in terms of growth.

A study was made in China about the determinants of producers' participation in agricultural cooperatives. The study used 2008 a cross-sectional data, random farmer survey and log it model. The finding of the study indicated that risk in price and production, future expansion of farmland, cost of selling products, growing cash crop and growing subsistence crops are the main explanatory variables that have a statistically significant influence on rural farmers to participate in cooperative societies. Farmers participate in cooperatives if they perceive high operation risk. Sales cost positively affects farmers' participation behavior. The probability to participate in cooperatives is higher for farmers who plant cash crops compared to grain planters. Farmers who plan to expand future operations are more likely to participate in cooperatives. The study concluded that farmers should participate in cooperatives to reduce production and marketing risk and then enhance the chance of expanding the business operation and increasing income level (Zheng*et al*., 2011).

A study was conducted in Uganda about the cooperative behavior using National Household Survey of 2005-2006 (7,426 households) and log it model. The result showed that household head characteristics (age, education, gender and dependency ratio),farmland and livestock ownership, holding a local government position, and community variables (distance to the nearest town, the size of the community, the

average wealth of the community) are explanatory variables that have statistically significant effect to influence participation of farmers in the newly established groups. The study shows that more educated and asset-rich households are more likely to participate in the newly formed cooperative group. Older households and female-headed households are more likely to participate. The level of trust of an individual is likely to influence the decision to participate in cooperatives. The study concluded that further work is needed to understand the determinants of trust and the relationship between trust, ethnicity and development of farmer groups (Vargas*et al*., 2008).

2.5 Critique of the existing literature relevant to the study

Research article by (Kifle, 2011) on the management of savings and credit cooperatives from the perspective of outreach & sustainability: evidence from Southern Tigrai of Ethiopia, the author did cite literature in relation to the area of study. There is enough buildup of information in relation to the research. The paper lacks theoretical framework on where the author builds up his research on. There is lack of sequential chronological order of literature as per specific objectives. The author describes clearly the area of study, provides the study population of ten SACCOs and states the usage of longitudinal research design with 2007 as the baseline. The researcher stated usage of both primary and secondary data and the way it was presented. The researcher failed to state the sampling technique, computation of the sample size and analysis of primary data. Usage of inferential statistics was not clearly stated and there is lack of econometric model to show the relationship between variables and establish the predictive nature of the information.

Research by (Clement & Martin, 2012) on the financial practice as a determinant of growth of savings and credit co-operative societies' wealth, the researcher introduced the research very well and offered key definitions. The researcher clearly elaborated the statement of the problem and clearly showed the problem and how he intends to address the issue, the researcher showed the framework and the relationship between the

dependent and independent variables very well, the author highlights the key challenges of SACCOs undergo and points out different researches that seem to support his work. The author puts correct research objectives and seems to do a very thorough introduction of the journal. The author has excellent citation related to SACCOs and their progress across a period of time and their growth and eminent challenges they had gone through. The author highlights the research design used and reason behind its usage. The author highlights the sampling and target population and the research instrument and finally comes up with the research model. This guides the research in the right direction to the final conclusion.

Research paper by (Nyabwaga, *et al*, 2012) on the effects of working capital management practices on financial performance: a study of small scale enterprises in Kisii south district, Kenya. The author summarizes the research on all section of the research paper. The flow of the abstract is very efficient highlighting the entire sector under investigation. The researcher seems to have done a thorough work on his paper by just reading through the abstract. The researcher introduces the research very well and offers key definition. The author highlights the key challenges SSEs undergo and points out different researches that seem to support his work. The author puts correct the research objectives and seems to do a very thorough introduction of the journal.

The author arranges the literature in a chronological order and highlights the key literature review relevant to SSEs cash management. The author cites three issues under the study and cites others in relation to efficient cash management in a business. The author finally introduces the conceptual framework showing the relationship between the dependent and independent model of the study. The author highlights the research design used and purpose of its usage. The author highlights the sampling and target population and the research instrument and finally comes up with the research model. This guides the research in the right direction to the final conclusion.

Research article by (Odhiambo,2011) on the relationship between working capital management and financial performance of deposit taking savings and credit cooperatives societies licensed by SACCO societies regulatory authority in Nairobi, the researcher cited it was a casual study which leaves a number of question unanswered since this is an academic published journal. The researcher studied four variables which could not wholly address the issue of working capital management in SACCOs. Also the researcher had no econometric model hence it was not possible to verify the form of relationship between dependent and independent variables.

2.6 Summary

The researcher managed to review three theories related to liquidity management and growth of deposit taking SACCOs. The researcher was able to link the theories to the study in order to improve the research further. The study was represented in a conceptual model highlighting the relationship between the independent, moderating and dependent variable and how they correlate and link up to help in the study of the problem at hand. Finally the researcher managed to highlight empirical literature from other scholars on the liquidity management and their contribution to performance of SACCOs internationally, African context and Kenyan context in order to build up on the case at hand on liquidity management of deposit taking SACCOs in Kenya.

2.7 Research Gaps

The environment within which SACCO are operating have had a major drastic change. SACCOs have been relying on the member's contribution and borrowing from the banks as the major source of cash so as to give loans to the members. Furthermore there has come a regulator SACCO Society Regulatory Authority (SASRA) which has laid down an operational framework for the SACCOs especially deposit taking SACCOs. Among the key issue is the liquidity requirements ratios and the provision for unrealizable loan. The attainment of full compliance with the capital adequacy ratios for individual DTSs remained a challenge, with institutional capital to total assets ratio being the most non-

complied with (SASRA, 2014). While the issuance of loans increased over the year, their risk level as measured by level of non-performing loans deteriorated from 4.72 percent to 5.73 percent in 2014. This indicates an elevated credit risk due to deterioration in performance of loans, (SASRA, 2014).

The regulatory framework defines non-performing loan portfolio as comprising the loans which are classified as substandard, doubtful and loss categories. The non-performing loans increased from Kshs 9.3 billion in 2013 to Kshs 13 billion in 2014. This presents a worrying trend since the majority of loans advanced by DTSs are guarantee – backed, thereby reducing the risks of defaults. It also demonstrates the fact that notwithstanding the fact that the loans and credit advances by DTSs are guarantee-backed, they are still susceptible to default, and thus additional measures to address the risks ought to be put in place, (SASRA, 2014). While the withdrawable savings deposits do not comprise significant portion of the balance sheet, DTSs are usually faced with liquidity mismatch when issuing loans based on multiplier of savings. However, there has been a shift from the multiplier factor to earnings especially with employer based DTSs, (SASRA, 2014).

As Jared (2013), asserts that with increased cost of borrowing due to high interest rates and in ability for members to increase their contributions due to tough economic times, SACCOs will have to rethink their strategies in order to sustain business. Waweru (2011), investigated the cash optimal on SACCOs.(Lari, 2009) researched on the power of financial ratios to detect fraud.(Muthoni, 2011) on members satisfaction in SACCO loans, there is no research known to the researcher addressing the broad liquidity problem among the SACCOs in the contemporary times hence this research filling in that gap. The research also addresses the gap of how SACCOs can improve their liquidity by mitigating on the factors highlighted and hence remain well liquid and travail in the current environment. A number of models have been developed to measure financial performance of the SACCOs, the researcher will fill the gap by establishing

usage of the relevant models for the financial performance evaluation as suggested by different regulatory bodies.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines in detail how the research was conducted. The chapter also present the population, sampling frame, sampling technique, sample size, instruments used, pilot test and data analysis.

The specific objectives were to explore the effect of cash management on financial performance of deposit taking SACCOs in Kenya; to examine the effect of Loan Repayment on financial performance of deposit taking SACCOs in Kenya; to assess the effect of investment in non-core business on financial performance of the deposit taking SACCOs in Kenya; to establish effect of liquidity decisions on financial performance of deposit taking SACCOs in Kenya; to evaluate the effect of management competency on financial performance of deposit taking SACCOs in Kenya and to determine the moderating effect of SACCO regulation on financial performance of deposit taking SACCOs in Kenya.

3.2 Research Design

This study adopted descriptive cross sectional design. Hannah, (2013) describes research design as the arrangement of condition from collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Research design is the blue print for the collection, measurement and analysis of data. It is a plan and structure of investment conceived so as to obtain answers to research questions (Coopers & Schindler, 2008).

This study adopted a descriptive cross sectional design to answer the research questions. According to Orodho (2003), descriptive survey is a method of collecting data by

interviewing or administering a questionnaire to a sample of individuals which can be used when collecting information about peoples' attitudes, opinions, habits or any other social issues. Descriptive research is a description of the state of affairs as it exists (Orodho & Kombo, 2002). Sekaran & Bougie (2011) concurs with Orodho & Kombo (2002) by asserting that descriptive study is undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation.

Sekaran & Bougie (2011) aver that descriptive study has several advantages such as; helps in understanding the characteristics of a group in a given situation, assists in systematic thinking about aspects in a given situation. It also offers idea for further probe and research and helps in making certain simple decisions. Zikmund, Babin, Carr &Griffin (2010) say that descriptive research is to describe characteristics of objects, people, groups, organizations, or environments. In other words, descriptive research tries to "paint a picture" of a given situation by addressing who, what, when, where, and how questions.

Descriptive research design was appropriate for this study as it helped in understanding the effect of liquidity management on financial performance of deposit taking SACCOs in Kenya and therefore answer the "what" question of the study. The researcher used longitudinal survey design since the nature of research also relied on secondary data of published financial reports of deposit taking SACCOs in Kenya. The data was for the last seven years namely year 2009 to year 2015.

3.3 Population

According to Mugenda and Mugenda (2003), a population refers to an entire group of individuals, events or objects having a common observable characteristic. In other words, population is the aggregate of all that conforms to a given specification. Sekaran and Bougie (2011) refers to a population as the entire group of people, events or things of interest that the researcher wishes to investigate. The target population of this study was senior managements of deposit taking SACCOs in Kenya. In Kenya, there are one

hundred thirty five (164) registered deposit taking SACCOs, (SASRA, 2015). The accessible population was deposit taking SACCOs registered by SASRA within five best performing counties in Kenya. The researcher undertook analysis of performance of all deposit taking SACCOs and established their location based on the high performing SACCOs in the country.

3.4Sampling Frame

Sampling frame is a (physical) representation of all the elements in the population from which the sample is drawn (Sekaran & Bougie, 2011). Turner (2003) defines a sampling frame as the set of source materials from which the sample is selected. The definition also encompasses the purpose of sampling frames, which is to provide a means for choosing the particular members of the target population that are to be interviewed in the survey. More than one set of materials may be necessary and this is generally the case in a multiple survey with a multi-stage nature. Upagade & Shende (2012) also refers to a sampling frame as a source list containing all names of the universe. Specifying the sample frame is crucial as it itemizes all items in the population from which a sample is obtained for analysis so as to test the research hypotheses. The sampling frame of this study was derived from the database of the SACCO Society Regulatory Authority (SASRA) that regulates and licenses deposit taking SACCOs in Kenya. The list contained deposit taking SACCOs licensed by the regulator as at 1st January 2014 as shown in Appendix II.

3.5 Sample and Sampling Technique

Sampling is the procedure a researcher uses to gather people, places or things to study. It is a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group (Orodho, 2002). The researcher adopted stratified random sampling technique where all units from the sampling frame have an equal chance to be drawn and to occur in the sample. The following formula will be used to get the sample size.

$$n = \frac{z^2 pq}{d^2}$$

Where:

$n =$ The desired sample size if the target population is greater than 10,000.

$z =$ The standard normal deviation at the required confidential level.

$p =$ The proportion in the target population estimated to have characteristics being measured.

$q = 1 - p$

$d =$ The level of statistical significance set, (Mugenda & Mugenda, 2003).

If there is no estimate available for the proportion in the target population assumed to have the characteristics of interest, 50% should be used as recommended by Fishet *et* al (2011).using the z-statistic of 1.96 and if the researcher desire an accuracy at the 0.05 level, then the sample size is

$$n = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2}$$

$= 384$

If the target population is less than 10,000, the required sample size will be smaller. In such case, we calculate a final sample estimate (n_f) using the following formula:

$$n_f = \frac{n}{1+(n/N)}$$

Where:

n_f = The desired sample size if the target population is less than 10,000

n = The desired sample size if the target population is greater than 10,000 that is 384

N = The estimate of the population size, in this case its 120, (Mugenda & Mugenda, 2003).

Thus $$n_f = \frac{n}{1+(n/N)}$$

$$= \frac{384}{1+(\frac{384}{120})} = 92$$

This sampling technique was an appropriate technique because it ensured that all SACCO Chief Executive Officers, Finance Managers, Credit Managers and Treasurers sampled had an equal chance of being included in the samples that yielded the data that was generalized within minimal margin of error and determined statistically, (Borg, 1987; Mugenda & Mugenda, 2003).

3.6 Data Collection Instruments

The research study used triangulation methodology in data collection. Questionnaires, document analysis and researcher's own observation was used. Primary quantitative data was collected by use of self-administered structured questionnaires. A questionnaire was adequate for this study since questionnaires are commonly used to collect important information about a population (Orodho, 2004) and each parameter in the questionnaire was developed to address a specific objective(Mugenda & Mugenda, 2003). The questionnaire was divided into seven sections: cash management, Loan Repayment, non-core investments, Liquidity decisions, management competency, SACCO regulation and financial performance of SACCOs. Perceptual responses were captured in a five or three– point Likert scale. Secondary data sheet was used to collect the financial performance of SACCOs for five years. The documents used included: Audited SACCO Financial accounts, SASRA financial documents of SACCOs performance and regulation and SACCOs management accounts. The information gathered and analyzed from these documents aided the researcher in making pertinent analysis in relation to variables under study.

3.7 Data Collection Procedure

The researcher collected data from primary and secondary sources. Quantitative method was employed in data collection since it had the advantage of getting responses of the same questions from a large number of people. Responses were then quantified and conclusions drawn from them. Qualitative method enables the researcher to collect data in the actual context in which the actual phenomenon occurs. It is usually an exploratory activity in which data is collected in a real-life natural setting and is therefore rich, descriptive and extensive (Wellington, 2000). Secondary data was collected from the SACCOs financial statements and other records using document review guide. The researcher employed drop and pick later method in getting data from the thirty SACCOs.

3.8 Pilot Test

Piloting is done to ascertain the reliability and validity of the instrument to be used for collecting data (Mugenda & Mugenda, 2003). This is essential as it reveals the weakness that may be in the questionnaire, for instance unclear directions, ambiguous questions and general layout. Piloting reveals if the analytical techniques are appropriate and reliable. In particular, pilot testing helps to detect weakness in design and instrumentation and provides proxy data for selection of a sample. Other benefits of pilot testing are that it helps in: assessing the feasibility of the study; designing a research protocol and assessing whether it is realistic and doable; establishing whether the sampling frame and technique are effective; identifying logistical problems which might occur with the proposed methodology; determining resources needed for the planned study and assessing the proposed data analysis techniques to uncover potential problems.

The content validity of the instrument was determined by the experts' and peers' advice whereas face validity was determined by administering the questionnaires to two (2) SACCOs in the neighboring Counties. Cronbach`s coefficient alphas was computed

using the formula alpha = Np/ [1+p (N-1)]; where N equals the number of items and p equals the mean interterm correlation to determine the internal consistency of the questionnaire constructs measuring cash management, Loan Repayment, non-core Investment ,liquidity decisions, management competency, SACCO regulation and financial Performance of SACCOs. The alpha values were acceptable if they exceeded the 0.7threshold as recommended by (Gliem & Gliem, 2003).

Owing to the many positive attributes of pilot testing discussed above, this study conducted a pilot test equivalent to 10% of the study sample in two counties of Muranga and Isiolo, namely four (4) Deposit SACCOs. This exercise helped in determining the time needed to carry out the study in one SACCO. The pilot testing exercise was conducted in a manner that mirrored the actual study. Observations made during the pilot test helped to improve the nature of questions contained in the questionnaire. The pilot sample was conveniently selected to fast track the process and minimized time wastage in the collection of the pilot data as well as analysis. After the study, certain items that seemed unclear were altered or eliminated.

3.8.1 Reliability of the Instrument

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda & Mugenda, 2003). It is concerned with precision and accuracy. Reliability is a synonym for consistency and replicability over time, over instruments and over groups of respondents (Cohen, Manion &Morrison, 2000). In this study, reliability of the questionnaire instruments was achieved through test-retest procedure. The researcher administered the instrument in one SACCO and after some time administered it again. A reliability coefficient was computed using the Spearman's coefficient of the correlation formula.

3.8.2 Validity

Validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study (Mugenda & Mugenda, 2003).It is concerned with establishing whether the questionnaire content is measuring what it is supposed to measure. It is concerned with how accurately the data obtained in the study represents the variables of the study. It also addresses the criterion and construct validity. Construct validity is a measure of the degree to which data obtained from an instrument meaningfully and accurately reflects or represents a theoretical concept (Mugenda & Mugenda, 2003).

It is a quality control feature aimed at ensuring that researchers are actually researching what they think and what they report, they are researching. It is about talking the same language, putting people at the same wavelength and avoiding confusion resulting from misunderstanding, misinterpretation and vagueness (Evans, 2002). Content validity is a measure of the degree to which data collected using a particular instrument represents a specific domain of indicators or content of a particular concept (Mugenda & Mugenda, 2003). In this study, results from the pilot study were used to judge the nature of performance of SACCOs to establish its content validity.

3.9 Data Processing and analysis

The data collected was analyzed, with respect to the study objectives, using both descriptive and inferential statistics. The tools of analysis adopted in this study were Statistical Package for Social Sciences (SPSS) version 21for descriptive data and advanced Microsoft excel for quantitative data. The data was analyzed using descriptive statistics such as mode, median, mean, standard deviation. Research hypothesis were tested by use of F-Statistics (one-way ANOVA), this is because the research has one dependent continuous variable and more than two independent factorial variables and also since the data was assumed to take a normal distribution.

A mix of tools was used since the data collected was both qualitative and quantitative. For the qualitative data which was measured using the Likert Scale, Content Analysis was carried out to understand the relationship of each of the independent variable with the dependent variable. Also, Principal Component Analysis was conducted to determine the effect of liquidity management on financial performance of deposit taking SACCOs in Kenya. High values ranging between 0.4 and 1.0 indicated that the factor is appropriate while a value below0.4 would mean that the factor would not be appropriate (Muganda, 2008).This provided the basis of removal of redundant variables in the proposed model. In respect of the qualitative data, inferential statistics was conducted.

In order to determine the accuracy level of the independent variable in predicting the dependent variable, the Cox and Snell's R- square was used(O'Connell, 2005; Fox, 2000) while Nagelkerke's R-Squared was used to test the strength of the overall relationship of the independent variables in predicting the dependent variable (Gujarat, 2009). The t-test was used to test the direction of the relationship between the independent variables and the dependent variable, that is, whether the relationship is positive or negative. A negative value means that, as one variable increases, the other variable decreases. A positive value on the other hand indicates that as one variable increases, the other variable also increases.

The study utilized correlation and multiple regression analysis to determine relationship between liquidity management and financial performance of SACCOs. Univariate analysis which is the distributional properties of a variable was carried out first for each variable to describe that variable and as a preparation for multivariate analysis. The study used F-Statistics to test dependence of performance of SACCOs on cash management, Loan Repayment, non-core investment, liquidity decisions and Management competency. Thus, the study employed multiple linear regressions in its multivariate analysis as summarized below:

$$\mathbf{Y = \beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+\varepsilon}$$

Where: β0, β1, β2, β3,β4,β5and β6 are coefficients; $\mathbf{X_1}$- Cash Management; $\mathbf{X_2}$- Loan Repayment; $\mathbf{X_3}$- Non-Core investments;$\mathbf{X_4}$- Liquidity decisions;$\mathbf{X_5}$-Management Competency and **Y**- Financial Performance indicator and Ɛ- Stochastic Error term.

Qualitative data was analyzed using content analysis to address the qualitative information obtained from the deposit taking SACCOS though a questionnaire. As one of today's most extensively employed analytical tools, content analysis has been used fruitfully in a wide variety of research applications in information and library science (ILS) (Allen & Reser, 1990). Similar to other fields, content analysis has been primarily used in ILS as a quantitative research method until recent decades.

Analysis of data using regression model has been used previously by Aduda (2011) in a study which investigated the relationship between executive compensation and firm performance in the Kenyan banking sector. Also Ngugi (2001) used a regression analysis in a study on the empirical analysis of interest rates spread in Kenya while Khawaja and Mulesh (2007) used regression analysis to identify the determinants of interest rates spread in Pakistan.

Using SPSS version 21.0, the regression model was tested on how well it fits the data. The significance of each independent variable was also tested. Fischer distribution test called F-test was applied. It refers to the ratio between the model mean square divided by the error mean square. F-test was used to test the significance of the overall model at a 5 percent confidence level. The p-value for the F-statistic was applied in determining the robustness of the model.

The conclusion was based on the basis of p-value where if the null hypothesis is of the beta is rejected then the overall model was significant and if null hypothesis accepted the overall model was insignificant. In other words if the p-value is less than 0.05 then it was concluded that the model is significant and has good predictors of the dependent variable and that the results are not based on chance. If the p-value is greater than 0.05

then the model was not significant and cannot be used to explain the variations in the dependent variable.

Similarly the t-test statistic was used to test the significance of each individual predictor or independent variable and hypothesis. The p-value for each t-test was used to make conclusions on whether to fail to accept or fail to reject the null hypotheses. The benchmark for this study for failure to reject or failure to accept the null hypothesis is a level of significance of 5 percent. If the p-value is less than five percent the null hypothesis failed to be accepted and the alternate hypothesis failed to be rejected. Also if the p-value is greater than 5percent the null hypothesis failed to be rejected and the alternate hypothesis failed to be accepted.

3.9.1 Moderated Multiple Regression Model

The MMR statistical model was given as:

$$\boldsymbol{Y = a + bX + cZ + dX*Z + \varepsilon}$$

Where

Variable ***Y*** was the financial performance of DTS in Kenya variable which in this case it was aggregated from Profit Margin, Level of Operating Expenses and Membership Growth.

Variable ***X*** was aggregate liquidity management. These were aggregated from Cash Management, Loan Repayment, Non-Core Investment, Liquidity Decisions and Management Competency.

Variable ***Z*** was the hypothesized moderator (SACCO Regulation) of relationship between variables ***X*** and ***Y***

The equation shows ordinary least squares (OLS) regression equation that tests the model predicting ***Y*** for first order effects of ***X*** and ***Z.***

a is the least squares estimates of the intercept ***b*** is least squares estimates of the population regression coefficient for ***Z d*** is the coefficient of ***X*Z ε*** is the error term.

Using MMR to estimate the effect of a moderator variable ***Z*** on the ***X-Y*** relationship involves a regression equation that includes ***Y*** as a criterion, and ***X*** and ***Z*** as predictors. In addition, the MMR equation includes a third predictor consisting of the ***X*Z*** product. This product term carries information regarding the ***X*** by ***Z*** interaction.

CHAPTER FOUR
RESULT AND DISCUSSION

4.1 Introduction

The chapter represents the empirical findings and results of the application of the variables using techniques mentioned in chapter three. The researcher intended to address the following hypotheses using the data gathered from the field: Cash management does not affect financial performance of deposit taking SACCOs in Kenya; Loan Repayment has no influence on financial performance of deposit taking SACCOs in Kenya; Non-core investment has no effect on financial performance of the deposit taking SACCOs in Kenya; Liquidity decisions does not contribute towards financial performance of deposit taking SACCOs in Kenya; Management competency does not influence financial performance of deposit taking SACCOs in Kenya and SACCO regulation has no moderating effect on financial performance of deposit taking SACCOs in Kenya.

Specifically, the data analysis was in line with specific objectives where patterns were investigated, interpreted and implications drawn on them. Data was presented in figures, tables and charts at the discretion of the researcher. The researcher tested reliability and also regression model results were provided. Also the test of hypothesis for all the independent variables was done and presented in this chapter.

4.2 Response Rate

From the data collected, out of the 92 questionnaires administered, 68 were filled and returned, which represents 74% response rate. This response rate is considered satisfactory to make conclusions for the study. Mugenda and Mugenda (2003) observed that a 50% response rate is adequate, 60% good and above, while 70% rated very well. This collaborates with Bailey (2000) assertion that a response rate of 50% is adequate,

while a response rate greater than 70% is very good. This implies that based on this assertion, the response rate in this case of 74% is therefore very good.

The recorded high response rate can be attributed to the data collection procedures, where the researcher pre-notified the potential participants (Chief Executive Officers, Finance Managers, Credit Managers and Treasurers) of the intended survey, utilized a self-administered questionnaire where the respondents completed and these were picked shortly after and made follow up calls to clarify queries and prompt the respondents to fill the questionnaires. The researcher also used secondary data. Since the study involved deposit taking SACCOS registered by SASRA, the researcher paid a courtesy call to SASRA office on 15th December 2014 and was able to get all the necessary data for the selected sample size. This increased reliability of the data and since the data from the regulator is audited hence the data was relevant in making necessary deduction for the research objectives.

4.3 Reliability Analysis

The reliability of an instrument refers to its ability to produce consistent and stable measurements. Bagozzi (1994), explains that reliability can be seen from two sides: reliability (the extent of accuracy) and unreliability (the extent of inaccuracy). The most common reliability coefficient is the Cronbach's alpha which estimates internal consistency by determining how all items on a test relate to all other items and to the total

Test - internal coherence of data. The reliability is expressed as a coefficient between 0and 1.00. The higher the coefficient, the more reliable is the test.

In this study to ensure the reliability of the instrument Cronbach's Alpha was used. Cronbach Alpha value is widely used to verify the reliability of the construct. Therefore, Cronbach Alpha was used to test the reliability of the proposed constructs. The findings indicated that cash management had a coefficient of 0.788, loan repayment had a

coefficient of 0.998, Non-core investments of 0.753, Liquidity decisions of 0.759, Management competency of 0.829, SACCO Regulation of 0.855and financial performance of 0.848.All constructs depicted that the value of Cronbach's Alpha are above the suggested value of 0.7 thus the study was reliable (Nunnally & Bernstein, 1994; Nunnally, 1974). On the basis of reliability test it was supposed that the scales used in this study is reliable to capture the constructs.

Table 4.1: Test of Reliability

Research Variable	Reliability Value	Remarks
Cash Management	0.788	Adequate
Loan Repayment	0.998	Adequate
Non-Core Investments	0.753	Adequate
Liquidity decision	0.759	Adequate
Management Competency	0.829	Adequate
SACCO Regulation	0.855	Adequate
Financial Performance	0.848	Adequate

Source: Author (2016)

4.4 Demographic Data

4.4.1 Gender Distribution

The researcher issued the data collection instrument and wished to establish population gender representation. Data gathered showed that thirty eight (38%) of the respondents were female while sixty two (62%) of the respondents were male. This was in alignment with one third rule of the Kenyan constitution and also in terms of good corporate governance policies and showed that SACCO management were sensitive towards balancing gender of their management.

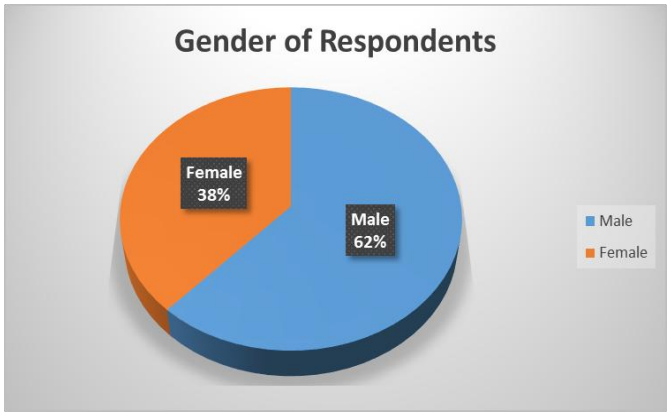

Figure 4.1: Gender of respondents

Source: Author (2016)

4.4.2 Length of Service

The researcher wished to establish the years of experience of the respondents in the different SACCOS chosen. This is critical since it reviews key human resource indicators and the ability of the institution to build and harness the potential of staff. Data from the field showed that fifty eight (58%) of the respondents had served the institution for less than five years, twenty seven (27%) of the respondents had served the institution between six and ten years while fifteen (15%) had served the institution for more than ten years.

This showed that there was job security within the SACCOS and the governance was offering fair rewards hence the heavenly distribution of the length of service to the institutions. This also showed an indication that SACCOs are good employers in Kenya and the Kenyan government need to strengthen them since it will highly contribute towards achievement of vision 2030 and also bridge the unemployment gap since most of the Kenyan youth are educated but not employed, hence the stronger the SACCOs the better in contribution on the employment of Kenyan youth, (IEA, 2013).

Table 4.2: Length of Service

Length of service	Frequency	Percentage (%)
<5 Years	34	57.6
6-10 Years	16	27.1
Above 10 Years	9	15.3
Total	**59**	**100**

Source: Author (2016)

4.4.3 Educational Level

The level of education is a key determinant in the performance of the employees. Education is correlated to the quality of services offered and the better educated personnel are more of a human capacity resource since they form part of organizational learning which is a key competency in offering competitive advantage of the organization. The more SACCOs are able to engage educated employees the better they are able to improve the knowledge of employees hence becoming competitive in the Kenyan financial service sector. The data gathered by the researcher showed that fifty five (55%) of the respondents had college level of education, twenty nine (29%) of the respondents had a degree while sixteen (16%) had a masters.

This showed that staff in the management level are highly educated and are in a position to undertake critical managerial decision in relation to financial performance and liquidity management of their institution. Currently in the education circles there is a cooperative degree which showed the recognition of the SACCOs in the buildup of the Kenyan economy, Cooperatives is a sector that has huge contribution towards the economic development and the result concur with the high educated personnel within the deposit taking SACCOs in Kenya, (SASRA, 2013).

Table 4.3: Education Level

Educational Level	Frequency	Percentage (%)
College	34	54.8
Graduate	18	29.0
Post Graduate	10	16.1
Total	**62**	**100**

Source: Author (2016)

4.5 Cash Management and Financial Performance

This was the first objective the researcher analyzed on the liquidity management of the deposit taking SACCOs within Kenya. The researcher presented the results as per below subheadings.

4.5.1 Descriptive Statistical Analysis of Cash Management

Cash management is critical in a financial institution. Cash is the engine of business and hence its management is crucial on measuring performance of a SACCO. The researcher had a number of parameters to determine management of cash in SACCOS namely preparation of regular cash budget, cash flow forecast, occurrence of cash shortages and surplus and monthly members' contribution. In their analysis, the researcher intended to establish the contribution of cash management on financial performance of deposit taking SACCOS in Kenya.

The researcher established that most SACCOS prepare cash budget regularly as indicated by mean of 4.51, this is strong but with level of dispersion of 0.532 shows that

less controls are in place to ensure cash budgets are well prepared. Hence the need of SACCOs management to ensure stronger controls are in place during preparation of cash budgets and this will be well represented by a smaller standard deviation. Researcher also established that most SACCOS prepare cash flow forecast in order to inform critical decision in relation to financial performance as shown by a mean value of 4.01, this is well represented since the median is 4.00 which shows cash flow forecast is done and taken seriously in the SACCOS. Across the number of SACCOs, the process is not standard since the standard deviation of 0.743 is very high in comparison to preparation of regular cash budget. This reviewed that management is aware of the need of preparation of cash flow forecast and its implication on the financial performance of the SACCOs.

The researcher also established there was occurrence of both cash surpluses and shortages as indicated by mean of 2.93 and 2.78. The data showed that shortages were greater than surpluses. This raised an alarm in terms of cash management since it greatly affects day to day operation of the institution since cash is the key engine in the operation of the SACCOS. Also the standard deviation is on the higher side namely 0.719 and 0.878 hence the dispersion levels are high. This shows even though SACCOS undertake strict cash flow forecast, there are external variables that can affect cash management which poses a greater risk in the operations of the institutions. Hence the need to critically review in-depth on the factors both in the external environment and internal environment that can affect cash management in the institution and establish mitigating factors.

The researcher established that the monthly members' contribution was low as indicated by mean of 3.25, and strengthened by median of 3. This raises a great concern in the cash management of the SACCOs since members' contribution provides direct cash in the institution. The management need to find ways to encourage regular contribution of the members since it will affect the financial performance of the institution.

Also the researcher established the level of dispersion was very high as reviewed by standard deviation of 1.238 hence it poses a high risk in the management of cash in deposit taking SACCOS. Hence the need of establishing good mechanism to encourage increase in membership contribution to boost financial performance of the SACCOS.

Table 4.4: Cash Management and Financial Performance Parameters

Cash Management Parameters	Mean	Median	Std. Deviation	Variance
Preparation of regular cash budget	4.51	5.00	.532	.283
Preparation of cash flow forecast for decision making	4.01	4.00	.743	.552
Occurrence of cash shortages	2.93	3.00	.719	.517
Occurrence of cash surpluses	2.78	3.00	.878	.772
The average monthly member's contribution	3.25	3.00	1.238	1.534

Source: Author (2016)

4.5.2 Constraints on Cash Management

The researcher wished to establish the constraints SACCOS undergo during cash management. The researcher established that the main challenges as per the respondents were: lack of members integrity in relation to liquidity management; lack of proper channels followed during liquidation process; methods and the techniques of depreciating assets; high level of loan demands and high loan default rate. Hence the advice of the researcher to the SACCO management was to address the listed challenges on liquidity management soonest possible since it will result on improved financial performance of the institutions as supported by (Alfred, 2011). The challenges are as a result of corporate governance within the SACCOs as cited by (Odhiambo, 2012).

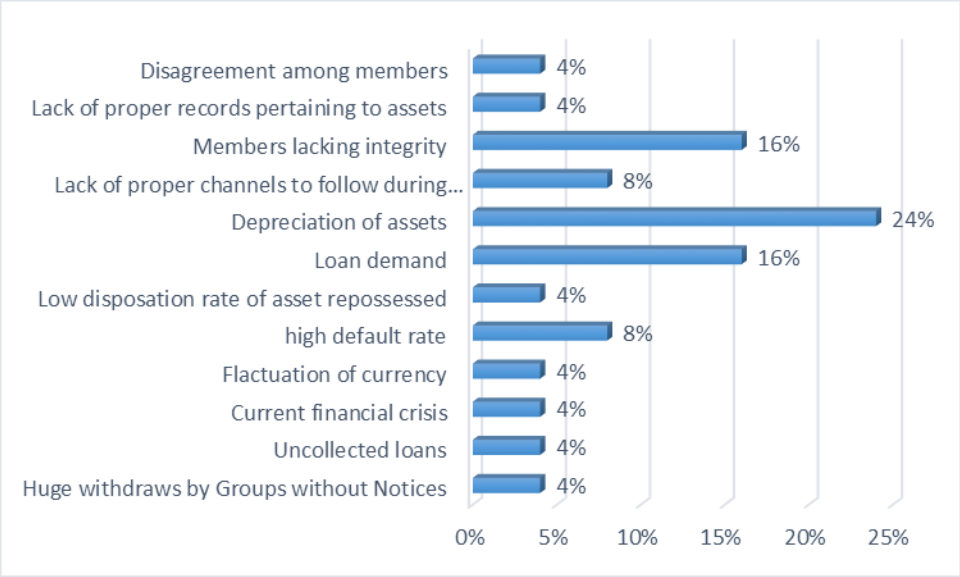

Figure 4.2: Constraints on Cash Management

Source: Author (2016)

4.5.3Correlation analysis Cash Management and Financial Performance

There is a weak positive relationship between cash management and Financial Performance of Deposit taking SACCOs in Kenya as indicated by correlation of 0.488. The p-Value of 0.000 is less than the acceptable significance level (α), hence the null hypothesis that there is no relationship between Cash Management and Financial Performance of Deposit taking SACCOS in Kenya is rejected. This shows that the sampled data can be applied to the general population across deposit taking SACCOs at 95% confidence level.

Table 4.5: Correlation Analysis - Cash Management and Financial Performance

Correlations of Cash Management Parameter		Cash budgeting	Membership Growth
Cash budgeting	Pearson Correlation	1	.488**
	Sig. (2-tailed)		.000
	N	68	68
Membership Growth	Pearson Correlation	.488**	1
	Sig. (2-tailed)	.000	
	N	68	68

Source: Author (2016)

4.5.4 Regression Analysis – Cash Management and Financial Performance

Regression analysis was conducted to empirically determine whether cash management was a significant determinant of financial performance. Regression results in *Table 4.6* indicate the goodness of fit for the regression between cash management and financial performance was satisfactory in the linear regression. An R squared of 0.042 indicates that 4.2% of the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in cash management in the linear model. The correlation coefficient of 4.88% indicates that the combined effect of the predictor variables have a positive correlation with financial performance. However with the combination of linear and non- linear components the R square improved to 13.6% which implies that the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in cash management. The non-linear addition model is statistically significant with an F statistic of 7.091 and P value (0.010)

The model being estimated take the form of

$$Y = \beta_0+\beta_1X_1+\beta_{11}X_{11}^2+e$$

Where

Y= Financial Performance,

X_1 = Linear composition of Cash management and

X_{11}^2= Non-Linear composition of Cash management

The above model is supported by the value of R-square of 0.136 giving the model a stronger explanatory power of 13.6% compared with the linear model which gave R – Square of 0.042 which translates to 4.2% thus validating the model as shown in *Table 4.6*.

Table 4.6: Model Summary Cash Management and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.205[a]	.042	.027	.669	.042	2.887	1	66	.094
2	.369[b]	.136	.110	.640	.094	7.091	1	65	.010

a. Predictors: (Constant), Cash Management

b. Predictors: (Constant), Cash Management, Cash Management squared.

Source: Author (2016)

The overall model significant was presented in table 4.10. An F statistic of 5.122 indicated that the overall model was significant. This was supported by the probability value of (0.009). The reported probability of (0.009) is less than the conventional probability of (0.05). The probability of (0.009) indicated that there was a very low probability that the statement "overall model was insignificant was true and it was therefore possible to conclude that the statement was untrue.

4.5.5 ANOVA Cash Management and Financial Performance

Table 4.7 displays the regression coefficient of the independent variable (cash Management). The result review that cash management is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. An F statistic of 5.122 indicated that the combined model was significant. This is supported by the probability value of (0.009). The reported probability of (0.009) is less than the conventional probability of (0.05) hence significant.

Table 4.7: ANOVA Cash Management and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.294	1	1.294	2.887	.094[b]
	Residual	29.574	66	.448		
	Total	30.868	67			
2	Regression	4.203	2	2.101	5.122	.009[c]
	Residual	26.665	65	.410		
	Total	30.868	67			

a. Dependent Variable: Performance in deposit taking SACCOs

b. Predictors: (Constant), Cash management

c. Predictors: (Constant), Cash Management, Cash Management squared.

Source: Author (2016)

Table 4.8 displays the regression coefficients of the independent variable (Cash Management). The results reveal that cash management is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. This is supported by (b=0.390, P value = 0.010). the positive beta explains that the SACCO's performance reaches a point where it stagnates and tends to go down whether cash management are managed or not as summarized in the regression model below.

$Y = 3.245-0.235X_1+0.390X_{11}^2+e$

This implied that the null hypothesis failed to be accepted and the alternative hypothesis failed to be rejected.

Table 4.8: Regression Coefficient – Cash Management and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.634	.698		6.636	.000
	Cash Management	-.261	.154	-.205	-1.699	.094
2	(Constant)	3.245	.848		3.827	.000
	Cash Management	-.235	.147	-.184	-1.596	.115
	Cash Management, Cash Management squared	.390	.146	.308	2.663	.010

a. Dependent Variable: Financial performance

Source: Author (2016)

4.6 Loan Repayment

This was the second objective the researcher analyzed on the loan repayment of the deposit taking SACCOs within Kenya. The researcher presented the results as per below subheadings.

4.6.1 Descriptive Statistical Analysis of Loan Repayment

The key business of deposit taking SACCOS is issuance of money in form of loans, hence they key mandate on a monthly basis is to ensure that members frequently settle their loans as required in their contractual loan obligation. Loan repayment is directly related to cash management, since the more members honor their loan obligation, the more funds the management will have at their disposal in meeting financial obligation of the institution. The researcher had set a number of parameters on loan repayment to gauge its relation on cash management and contribution to financial performance of the

deposit taking SACCOS. The parameters included: level of gross loan portfolio, rate of loan default, level of loan default provision, easiness of getting loan guarantors and level of outstanding loans. Analysis of the above variables indicated how deposit taking SACCOS manage their loan repayment portfolio and its effect on cash management of the SACCOS.

The researcher established that the level of gross loan portfolio was average as indicated by mean of 3.00 and the point was confirmed by positional average of the median value of 3.00. The level of dispersion was very high as indicated by standard deviation of 0.879 hence it showed that across the period, gross loan was varying at high levels. This also reviews the great need of loan by members which confirms the key mandate of deposit taking SACCOS on the issuance of loan to its members. This reviewed that management has taken precaution measures on the management of the gross loans and they were abit pessimist on the dangers of having a huge gross loan on their books.

The researcher also established that the rate of loan default was on an increase as indicated by mean of 2.65 and also management provision mean of 3.43. The data reviewed that management had a higher provision that rate of default which is an application of the accounting principle of prudence. Loan default was highly dispersed as shown by standard deviation of 0.787 hence the need to introduce strict measures on the level of loan default for the SACCOS. This is because it has great impact on the cash management since money is required for undertaking other investments by the institution which directly affect financial performance of the deposit taking SACCOS.

They main way to mitigate loan default by the SACCOS, is through loan guarantees. The researcher established that accessing guarantees was not a big issue as indicated by mean value of 4.68, but dispersion rate was very high as shown by standard deviation of 6.173. Hence the members were fearful in loan guarantees but since they also needed someone to assist them when they needed to access the money, they had no other option. The level of outstanding loans in the deposit taking SACCOS was very high as indicated

by the mean of 3.04, hence the need for the management to established strategies to reduce the level of outstanding loans since it has direct impact on cash management and will definitely affect financial performance of the institution.

Table 4.9: Loan Repayment Parameters

Loan Repayment Parameters	Mean	Median	Std. Deviation	Variance
Level of gross loan portfolio	3.13	3.00	.879	.773
Rate of loan default in the SACCO	2.65	3.00	.787	.620
Level of loan loss provision	3.43	3.50	1.012	1.024
Easiness of getting loan guarantors	4.68	3.00	6.173	38.103
level of outstanding loans	3.04	3.00	.721	4.438

Source: Author (2016)

4.6.2 Loan Products offered by SACCOS

To improve their financial performance, SACCOS have moved forward to diversify their loan products, the researcher established that the following were the main loan products offered by the SACCOS: staff members loan; nominal loan; investment loans; agribusiness loan; smart loan; personal loan; premier loan; fanikisha loan; Tosa pride loan; mortgage loan; normal loan; micro credit loan; development loan and business loans. This reviewed that there was high demand for funds by their members hence the need to diversify their loan products portfolio.

The researcher also established that in the financial sector there was high competition from other players in the sector hence the need of the institutions to diversify their loan products. It also reviewed the role played by SACCOs in the development of the economy is very critical and the policy makers need to address key policies on the development of the SACCOs so that they can have a level playing field in the financial sector and contribute towards the country's economic development.

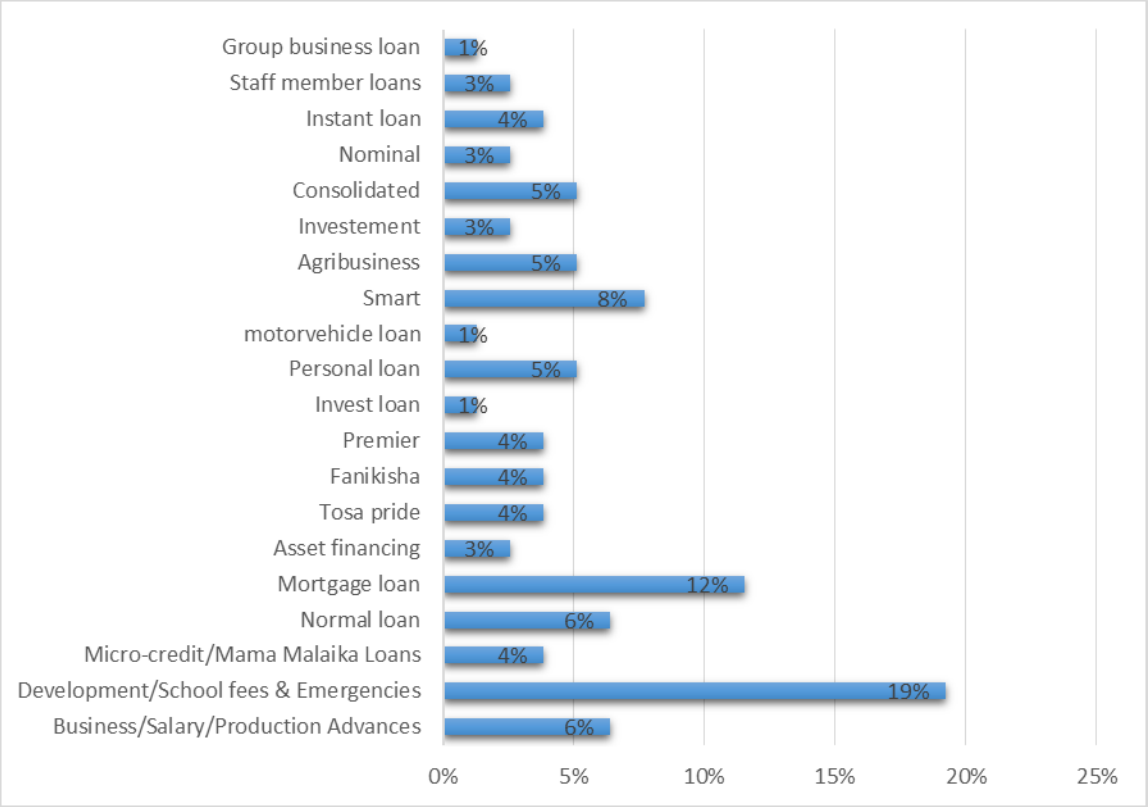

Figure 4.3: Loan Products offered by SACCOS

Source: Author (2016)

4.6.3Correlation Analysis Loan Repayment

There is a weak positive relationship between Loan Repayment and Financial Performance of Deposit taking SACCOs in Kenya as indicated by correlation of 0.396. The p-Value of 0.000 is less than the acceptable significance level (α), hence the null hypothesis that there is no relationship between Loan Repayment and Financial Performance of Deposit taking SACCOS in Kenya is rejected. This shows that the sampled data can be applied to the general population across registered deposit taking SACCOs at 95% confidence level.

Table 4.10: Correlation Analysis - Loan Repayment

Correlations of Loan Repayment Parameter		Gross loan portfolio	Membership Growth
Gross loan portfolio	Pearson Correlation	1	.396**
	Sig. (2-tailed)		.000
	N	68	68
Membership Growth	Pearson Correlation	.396**	1
	Sig. (2-tailed)	.000	
	N	68	68

Source: Author (2016)

4.6.4 Regression Analysis – Loan Repayment Management and Financial Performance

Regression analysis was conducted to empirically determine whether loan repayment was a significant determinant of financial performance. Regression results in *Table 4.11* indicates the goodness of fit for the regression between loan repayment and financial performance was satisfactory in the linear regression. An R squared of 0.009 indicates that 6.9% of the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in loan repayment in the linear model. The correlation coefficient of 39.6% indicates that the combined effect of the predictor variables have a positive correlation with financial performance. However with the combination of linear and non- linear components the R square improved to 10.36% which implies that the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in cash management. The non-linear addition model is statistically significant with an F statistic of 6.756 and P value (0.012).

The model being estimated take the form of:

$Y = \beta_0+\beta_1X_1+\beta_{11}X_{11}^2+e$

Where Y= Financial Performance, X_1 = Linear composition of Loan Repayment and X_{11}^2= Non-Linear composition of Loan Repayment.

The above model is supported by the value of R-square of 0.103 giving the model a stronger explanatory power of 10.3% compared with the linear model which gave R – Square of 0.009 which translates to 0.9 % thus validating the model as shown in table 4.11.

Table 4.11: Model Summary Loan Repayment and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.097[a]	.009	-.006	.681	.009	.633	1	66	.429
2	.321[b]	.103	.075	.653	.093	6.756	1	65	.012

a. Predictors: (Constant), Loan Repayment

b. Predictors: (Constant), Loan Repayment, Loan Repayment squared.

Source: Author (2016)

The overall model significant was presented in table 4.12. An F statistic of 3.722 indicated that the overall model was significant. This was supported by the probability value of (0.029). The reported probability of (0.029) is less than the conventional probability of (0.05). The probability of (0.029) indicated that there was a very low probability that the statement "overall model was insignificant was true and it was therefore possible to conclude that the statement was untrue.

4.6.5 ANOVA Loan Repayment and Financial Performance

Table 4.12 displays the regression coefficient of the independent variable (Loan Repayment). The result review that cash management is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. An F statistic of

0.633 indicated that the combined model was significant. This is supported by the probability value of (0.000). The reported probability of (0.000) is less than the conventional probability of (0.05) hence significant.

Table 4.12: ANOVA Loan Repayment and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.293	1	.293	.633	.429[b]
	Residual	30.575	66	.463		
	Total	30.868	67			
2	Regression	3.172	2	1.586	3.722	.029[c]
	Residual	27.696	65	.426		
	Total	30.868	67			

a. Dependent Variable: Performance in deposit taking SACCOs

b. Predictors: (Constant), Loan Repayment

c. Predictors: (Constant), Loan Repayment, Loan Repayment squared

Source: Author (2016)

Table 4.13 displays the regression coefficients of the independent variable (Loan Repayment). The results reveal that Loan Repayment is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. This is supported by (b=0.399, P value = 0.012). the positive beta explains that the SACCO's performance reaches a point where it stagnates and tends to go down whether Loan Repayment are managed or not as summarized in the regression model below.

$Y = 2.102 + 0.17X_2 + 0.399X_{21}^2 + e$

This implied that the null hypothesis failed to be accepted and the alternative hypothesis failed to be rejected.

Table 4.13: Regression Coefficient – Loan Repayment and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.220	.307		10.473	.000
	Loan Repayment	.075	.095	.097	.795	.429
2	(Constant)	2.102	.521		4.032	.000
	Loan Repayment	.017	.093	.022	.178	.859
	Loan Repayment, Loan Repayment squared	.399	.153	.315	2.599	.012

a. Dependent Variable: Financial performance

Source: Author (2016)

4.7 Non-Core Investments

This was the third objective the researcher analyzed on the Non-Core Investment of the deposit taking SACCOs within Kenya. The researcher presented the results as per below subheadings.

4.7.1 Descriptive Statistical Analysis of Non-Core Investment

In business, competition is healthy as highlighted by many strategic authors. Financial institutions have not been left behind since they also operate in an external and intertwined environment. With advert of new technology, traditional cash generating sectors have been on the diminishing line. Examples include mobile telecommunication companies like Safaricom being a leader in mobile money through its MPESA flagship project. Hence even deposit taking SACCOs have ventured into non-core investments to improve their financial performance and wealth creation.

The researcher wished to establish the level of investment in non-core areas using the following parameters: SACCO investment policies; reliance on external borrowing;

investment in land and buildings; listed companies; treasury bills and bonds and offshore investments. Data from the field reviewed that SACCOs investment policy remained under core principles of Cooperatives as indicated by mean of 4.15. Although the dispersion was huge as indicated by standard deviation of 0.629, this showed that the regulator authority of SACCOs (SASRA) is playing a big roleto ensure that SACCOs do not digress from their core mandate which is financial management and support for their members.

The researcher also looked to establish reliance of financial needs on the SACCO financial performance, data from the field reviewed that reliance of external borrowing was little as reviewed by mean value of 3.23 and confirmed by positional average by the median of 4.00. this showed that members contribution played a key part in generating needed cash for the loans issues by the SACCOs to their members, which indicate manageable levels of risk since external financial variables like inflation, macro-economic factors have less effect on the cash management of the institution hence less effect on financial performance if the deposit taking SACCOs.

The researcher established that on the diversification of SACCO investment in non-core areas was very low as indicated by the mean of 1.25 on land and building, 1.78 on listed company shares, 1.66 on treasury bills and bonds and 1.74 on off shore investment. But the dispersion was high across the non-core investment options available which showed it could have differed across different institutions. The result could have indicated that the demand for cash by members in terms of loan request was very high hence there was less surplus cash available for diversified investment, also it could indicate the lack of investment capacity across SACCOS hence less diversification to various option available in the market.

This data will play a key role on the regulators role in advising on the investment on non-core areas by the SACCO since it would affect cash management and incase of complete loan default by the members, the SACCO can close shop due to concentration

level of the risks involved. In addition, the contribution of SACCOs on the economic performance especially in the financial institution towards achievement of Kenya Vision 2030. SACCOs need to allocate more funds on investment diversification since most are striving to be licensed on deposit taking hence they could contribute more in the expansion of the economy and especially on the middle class since most of their members are in the middle and lower classes in the economic performance.

Table 4.14: Non-Core Investment Parameters

Non-Core Investment parameters	Mean	Median	Std. Deviation	Variance
The SACCO investment policy remains within the core principles of the cooperative	4.15	4.00	.629	.396
The reliance of the external borrowing for financing SACCO activities	3.23	4.00	1.539	2.368
Land and buildings	1.25	1.00	.531	.282
Listed company Shares	1.78	1.00	.944	.891
Treasury bills & Bonds	1.66	2.00	.713	.509
Off shore investments	1.74	1.00	.973	.946

Source: Author (2016)

4.7.2 Type of Investments

The researcher also gathered secondary information to establish types of investments held by the deposit taking SACCOs. The researcher found out that most of these institutions have varied and diversified investment in the following categories: investment properties; investments in companies; other securities; government securities and financial investments. The role of deposit taking SACCOs is changing and becoming relevant as they have become a player in the financial institution in the economy. Hence the role deposit taking SACCOs need to be given attention it deserves. The researcher established that most of the institutions have huge investment interest in

financial investment and investment in companies, hence the need for the regulator to establish why the heighted interest and devise an investment policy to ensure members funds are well protected.

This information was differing from the primary data where most of the respondents had stated that most of the deposit taking SACCOs fear investment and had cited them to be too risky and lack of technical expertise in the management of the SACCO investments. Secondary data reviewed that SACCOs are engaged in financial investments even though not in large extent. This reviews the need for the regulator to increase its awareness of its role to ensure members are aware of the need for information disclosure so that the industry can attract more investors due to less information asymmetry.

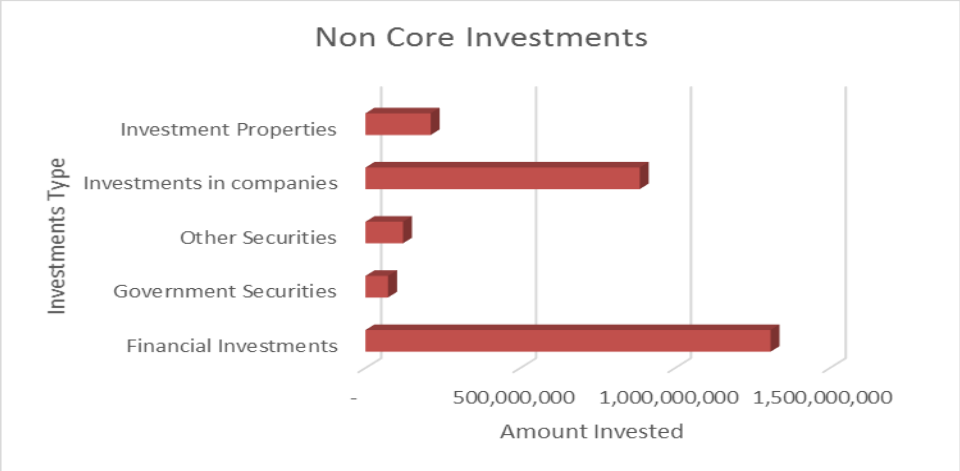

Figure 4.4: Type of Investments

Source: Author (2016)

4.7.3 SACCO Liabilities

A good liquidity management system strive to review measures to ensure there is less cash held by key liabilities. A summarized data showed that over forty five (45) % of

cash was held in prepayments, forty three (43) % was held in allowance for loan loss and eleven (11)% was held in balances with other SACCO societies. This showed a poor liquidity management strategy by SACCOs since even in the banking industry, the central bank as a regulatory policy of cross bank lending where there is a percentage and a limit. So the researcher established the need for the regulator (SASSRA) to develop a policy on cross SACCO lending since it can affect liquidity management within SACCOs.

Table 4.15: SACCO Liabilities

SACCO Liabilities	Amount (Kshs)	Percentage (%)
Prepayments and Sundry Receivables	965,274,110	45
Balances with other SACCO Societies	228,585,296	11
Allowances for loan loss	929,556,901	43
Account Receivables	14,726,592	1
Total	**2,138,142,898**	**100**

Source: Author (2016)

4.7.4 Challenges in Members loan repayment

The researcher identified that members' loan repayment is the key challenge that SACCOs are facing in Kenya. Data gathered during the study showed diversified challenges in relation to members loan repayment as follows: groups disintegration; members failure to honor financial obligation; over commitment of salaries; loss of employment; members unwillingness to pay the monthly instalments; and delay of members' salaries. The researcher established that most of the challenges had a significant solution since SACCOs is a member's institution and loan issued is in relation to the member's shareholding and their guarantors. Hence the need of the SACCO management to sensitize their members on the need to honor their financial obligation on time to ensure there are no liquidity challenges within the SACCOS.

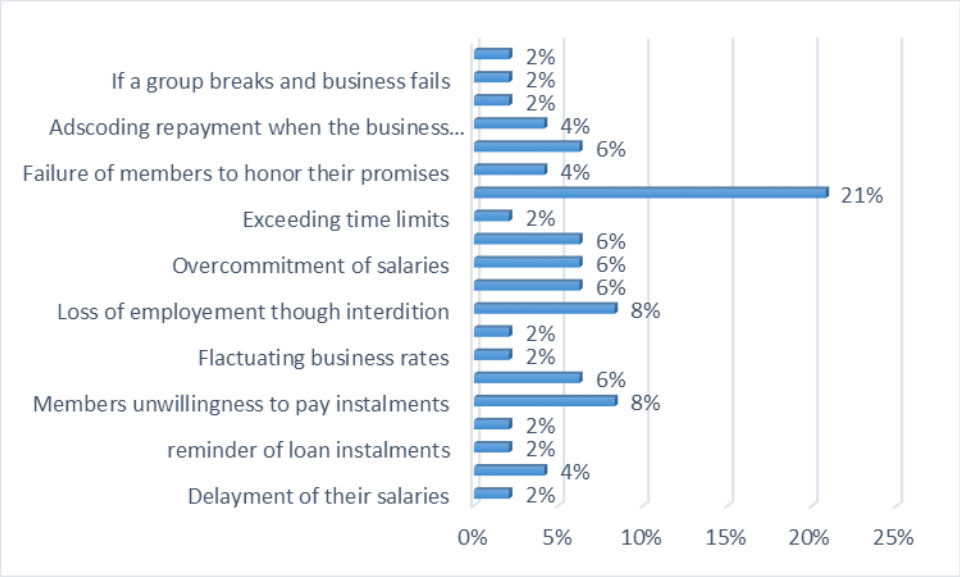

Figure 4.5: Challenges in Members loan repayment

Source: Author (2016)

4.7.5Investment in Non-Core Activities

With increased competition in the financial sector, SACCOs have been forced to invest on non-core activities in order to attract more members and improve on their financial performance. The researcher established that twenty two (22%) of the respondents stated that their institutions were engaged in product diversification strategies; eleven (11%) stated they were engaged in profit maximization vis a vis loan advancement strategies while sixty seven (67%) stated that investment in non-core activities was a good strategy but very risky. Hence the conclusion that most SACCOs are not in a position to meet demand of the members loan and diversification to other non-core activities was non-essential since they have no technical knowhow on the level of investment knowledge. This is established by most of the respondents stating it was a very risky venture and the need of the SACCOs to concentrate on their core mandate.

Table 4.16: Investment in Non-Core Activities

Investments in Non-Core Activities	Frequency	Percentage (%)
Good strategy but very risky	18	67
Profit maximization vis Loan advances	3	11
Product Diversification strategy	6	22
Total	**27**	**100**

Source: Author (2016)

4.7.6CorrelationAnalysis Non-Core Investment

There is a Strong positive relationship between Non-Core Investment and Financial Performance of Deposit taking SACCOs in Kenya as indicated by correlation of 0.652. The p-Value of 0.003 is less than the acceptable significance level (α), hence the null hypothesis that there is no relationship between Non-Core Investment and Financial Performance of Deposit taking SACCOS in Kenya is rejected. This shows that the sampled data can be applied to the general population across registered deposit taking SACCOs at 95% confidence level.

Table 4.17: Correlation Analysis Non-Core Investment

Correlations of Non-Core Investment Parameter		**External borrowing ration**	**Member share value Growth**
External Borrowing ration	Pearson Correlation	1	.288**
	Sig. (2-tailed)		.009
	N	68	68
Member share value Growth	Pearson Correlation	.288**	1
	Sig. (2-tailed)	.009	
	N	68	68

Source: Author (2016)

4.7.7 Regression Analysis – Non-Core Investment and Financial Performance

Regression analysis was conducted to empirically determine whether Non-Core Investments was a significant determinant of financial performance. Regression results in *Table 4.18* indicates the goodness of fit for the regression between Non-Core Investment and financial performance was satisfactory in the linear regression. An R squared of 0.007 indicates that 7.0% of the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in Non-Core Investment in the linear model. The correlation coefficient of 28.8% indicates that the combined effect of the predictor variables have a positive correlation with financial performance. However with the combination of linear and non- linear components the R square improved to 10.3% which implies that the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in cash management. The non-linear addition model is statistically significant with an F statistic of 6.928 and P value (0.011) The model being estimated take the form of:

$Y = \beta_0+\beta_3X_3+\beta_{31}X_{31}^2+e$

Where Y= Financial Performance, X_1 = Linear composition of Non-Core Investment and X_{11}^2= Non-Linear composition of Non-Core Investment.

The above model is supported by the value of R-square of 0.103 giving the model a stronger explanatory power of 10.3% compared with the linear model which gave R – Square of 0.007 which translates to 7.0% thus validating the model as shown in table 4.18.

Table 4.18: Model Summary Non-Core Investment and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.085[a]	.007	-.008	.681	.007	.484	1	66	.489
2	.321[b]	.103	.075	.653	.096	6.928	1	65	.011

a. Predictors: (Constant), Non-Core Investment

b. Predictors: (Constant), Non-Core Investment, Non-Core Investment squared

Source: Author (2016)

The overall model significant was presented in *Table 4.19*. An F statistic of 3.728 indicated that the overall model was significant. This was supported by the probability value of (0.029). The reported probability of (0.029) is more than the conventional probability of (0.05). The probability of (0.029) indicated that there was a very low probability that the statement "overall model was insignificant was true and it was therefore possible to conclude that the statement was untrue.

4.7.8 ANOVA Non-Core Investment and Financial Performance

Table 4.19 displays the regression coefficient of the independent variable (Non-Core Investment). The result review that cash management is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. An F statistic of 3.728 indicated that the combined model was significant. This is supported by the

probability value of (0.029). The reported probability of (0.029) is more than the conventional probability of (0.05) hence insignificant.

Table 4.19: ANOVA Non-Core Investment and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.225	1	.225	.484	.489[b]
	Residual	30.643	66	.464		
	Total	30.868	67			
2	Regression	3.176	2	1.588	3.728	.029[c]
	Residual	27.692	65	.426		
	Total	30.868	67			

a. Dependent Variable: Performance in deposit taking SACCOs

b. Predictors: (Constant), Non-Core Investment

c. Predictors: (Constant), Non-Core Investment, Non-Core Investment squared

Source: Author (2016)

Table 4.20 displays the regression coefficients of the independent variable (Non-Core Investment). The results reveal that Non-Core Investment is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. This is supported by (b=0.399, p value = 0.011). The positive beta explains that the deposit taking SACCOs performance reaches a point where it stagnates and tends to go down whether Non-Core Investment is managed or not. This is summarized in the regression model below;

$$Y = 2.043+0.027X_3+ 0.399X_{13}^3+e$$

This implied that the null hypothesis failed to be accepted and the alternative hypothesis failed to be rejected.

Table 4.20: Regression Coefficient Non-Core Investment and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.074	.555		5.541	.000
	Non-Core Investment?	.092	.132	.085	.696	.489
2	(Constant)	2.043	.660		3.093	.003
	Non-Core Investment?	.027	.129	.025	.205	.838
	Non-Core Investment squared	.399	.152	.315	2.632	.011

a. Dependent Variable: Financial performance

Source: Author (2016)

4.8Liquidity Decisions

This was the fourth objective the researcher analyzed on the liquidity decisions of the deposit taking SACCOs within Kenya. The researcher presented the results as per the below subheadings.

4.8.1 Descriptive Statistical Analysis of Cash Management

Cash management decision are very critical in any organization especially financial institution since cash is the main asset or inventory. Banks have established structured on liquidity management and have various mitigations on the risks involved in cash management. The researcher wished to establish if liquidity decisions were given the due attention. Data from the field showed that management rating on prudence of liquidity management was very low as indicated by mean of 3.32 and level of dispersion was very high as indicated by standard deviation of 0.742, which could be interpreted that in some areas, illiteracy levels were high. Hence the SACCO regulator need to set

up prudent measures on liquidity support techniques for the SACCOs since it would adversely affect cash management and result to poor financial performance of the institutions.

Data from the field also showed that effectiveness level of investment income usage was low as indicated by a mean of 3.46 and also the dispersion level was high as indicated by standard deviation of 0.679. this could raise a concern that need to be addressed by the regulator since most institution are experiencing huge growth and if the growth level does not match investment level it could inversely affect cash management and result to lower financial performance of the institution. Members are they key investors in the SACCO industry, at the end of financial period, they greatly expect dividend payout as the owners of the institution. Dividend payment has direct impact on the performance of the institution and it should be issued depending on the financial performance of the institution. The researcher established that Sacco's dividend payout was larger than the market rate as indicated by mean value of 3.3 although the dispersion value as measured by standard deviation of 0.770 was huge. Hence the regulator need to devise an effective policy on guidance on dividend payment of SACCOs since they seem to be paying more than the market rate which in the short run may look very lucrative but in the long run it will have a negative effect on the financial performance and stability of the SACCOs.

The core mandate of SACCOs is supporting its member's financial welfare through issuance of developmental loans. Data from the field indicated that level of issuance of new loans was very high as indicated by a mean value of 3.97 and confirmed by positional average of the median value of 4.00. The dispersion rate was 0.572 which showed some SACCOs have challenges in meeting new loan application by their members due to liquidity challenges. This data showed positive indication that SACCOs are undertaking their mandate since they need to improve the economic welfare of their members by ensuring that they issue new developmental loans. Although the dispersion rate was high, the regulator needs to check on ways to support deposit taking SACCOs since it may lead to low confidence level emanating from their members and could lead

to jumping from one institution to another and in the long run affect performance or event collapse of some of the institutions.

Effective cash management is enhanced by frequent financial reporting to the membership and the regulatory body. This will inform the members on the sustainability and going concern of the institution. The data from the field showed that the institution were reporting well as indicated by the mean value of 3.45 but the dispersion rate was high as showed by standard deviation of 0.791. Hence the regulator need to strengthen the reporting mechanism and reduce the dispersion range since it was too large. This could be borrowed from Nairobi Security Exchange (NSE) regulation that indicate all listed firms need to provide quarterly financials and ensure the public on the local dailies. This will increase information awareness and reduce risks resulting on insider trading of the institutions. This will also result to better cash management in SACCOs by attracting huge membership as a result of economic expansion of the middle and lower income earners hence better achievement of a middle economy by Vision 2030.

The researcher established that protection of members' deposits was high as indicated by mean value of 3.58 and confirmed by position average by median value of 4.00. The dispersion value as showed by standard deviation of 0.748 was very high which showed protection measures were differing from one institution to another. This creates a huge financial risk on the institution since members' funds are not in safe hands from a policy perspective. The researcher recommends that the SACCO regulatory body need to harmonize members funds protection so that the dispersion rate should come low.

Table 4.21: Liquidity Decisions Parameters

Liquidity Decisions Parameters	Mean	Median	Std. Deviation	Variance
Management in terms of prudence in liquidity management	3.32	3.00	.742	.550
The effectiveness level on the investment income usage	3.46	3.00	.679	.461
Dividend rate in comparison to market rate	3.30	3.00	.770	.593
Rate of disbursement of new loans	3.97	4.00	.572	.327
Level of Financial reporting as per SACCO financial policy	3.45	3.00	.791	.626
Protection of members deposit by SACCO management	3.58	4.00	.748	.559

Source: Author (2016)

4.8.2Reasons for delay in loan repayment

The researcher established that there were reasons provided by the respondents on why they delayed in loan repayment. Data from the field showed that the reasons were: bureaucracy in terms of accessing loan as indicated by nine (9%); delayed meetings by credit committees as indicated by thirty seven (37%); lack of proper financial records as showed by nine (9%); lack of enough securities as showed by eighteen (18%); collateral process as showed by eighteen (18%) and poor documentation as showed by nine (9%). The information is very critical since SACCOs are in a very competitive environment and need to address the provided challenges. This will result to improved liquidity management and will highly contribute towards improved financial performance of SACCOs.

Table 4.22: Reasons for delay in loan repayment

Reasons for delay in loan repayment	Frequency	Percentage (%)
Delayed meetings by credit committees	3	37
Poor loan documentation	6	9
Collateral process	6	18
Lack of enough securities	3	18
Lack of proper financial records	3	9
Bureaucracy in terms of accessing loans	12	9
Total	**33**	**100**

Source: Author (2016)

4.8.3Correlation Analysis Liquidity Decisions

There is a Strong positive relationship between Liquidity Decisions and Financial Performance of Deposit taking SACCOs in Kenya as indicated by correlation of 0.529. The p-Value of 0.004 is less than the acceptable significance level (α), hence the null hypothesis that there is no relationship between Liquidity decisions and Financial Performance of Deposit taking SACCOS in Kenya is rejected. This shows that the sampled data can be applied to the general population across registered deposit taking SACCOs at 95% confidence level.

Table 4.23: Correlation Analysis Liquidity Decisions

Correlations of Liquidity Decisions Parameter		Dividend Policy	Profit Margin
Dividend Policy	Pearson Correlation	1	.288**
	Sig. (2-tailed)		.010
	N	65	65
Profit Margin	Pearson Correlation	.288**	1
	Sig. (2-tailed)	.010	
	N	65	65

Source: Author (2016)

4.8.4 Regression Analysis – Liquidity Decisions and Financial Performance

Regression analysis was conducted to empirically determine whether Liquidity Decisions was a significant determinant of financial performance. Regression results in *Table 4.24* indicate the goodness of fit for the regression between Liquidity Decisions and financial performance was satisfactory in the linear regression. An R squared of 0.071 indicates that 7.1% of the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in Liquidity Decisions in the linear model. The correlation coefficient of 2.88% indicates that the combined effect of the predictor variables have a positive correlation with financial performance. However with the combination of linear and non- linear components the R square improved to 13.3% which implies that the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in Liquidity decisions. The non-linear addition model is statistically significant with an F statistic of 4.700 and P value (0.034).

The model being estimated take the form of

$$Y = \beta_0+\beta_4X_4+\beta_{41}X_{41}^2+e$$

Where

Y= Financial Performance,

X_1 = Linear composition of Liquidity Decisions and

X_{11}^2= Non-Linear composition of Liquidity Decisions.

The above model is supported by the value of R-square of 0.133 giving the model a stronger explanatory power of 13.3% compared with the linear model which gave R – Square of 0.071 which translates to 7.1% thus validating the model as shown in *Table 4.24.*

Table 4.24 Model Summary Liquidity Decisions and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.266[a]	.071	.057	.659	.071	5.020	1	66	.028
2	.365[b]	.133	.107	.642	.063	4.700	1	65	.034

a. Predictors: (Constant), Liquidity Decisions

b. Predictors: (Constant), Liquidity Decisions, Liquidity Decisions squared

Source: Author (2016)

The overall model significant was presented in *Table 4.25*. An F statistic of 5.001 indicated that the overall model was significant. This was supported by the probability value of (0.01). The reported probability of (0.01) is less than the conventional probability of (0.05). The probability of (0.01) indicated that there was a very low probability that the statement "overall model was insignificant was true and it was therefore possible to conclude that the statement was untrue.

4.8.5 ANOVA Liquidity Decisions and Financial Performance

Table 4.25 displays the regression coefficient of the independent variable (Liquidity Decisions). The result review that cash management is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. An F statistic of 5.001 indicated that the combined model was significant. This is supported by the probability value of (0.010). The reported probability of (0.010) is less than the conventional probability of (0.05) hence significant.

Table 4.25: ANOVA Liquidity Decisions and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.182	1	2.182	5.020	.028[b]
	Residual	28.686	66	.435		
	Total	30.868	67			
2	Regression	4.116	2	2.058	5.001	.010[c]
	Residual	26.751	65	.412		
	Total	30.868	67			

a. Dependent Variable: Performance in deposit taking SACCOs

b. Predictors: (Constant), Liquidity Decisions

c. Predictors: (Constant), Liquidity Decisions, Liquidity Decisions squared

Source: Author (2016)

Table 4.26 displays the regression coefficients of the independent variable (Liquidity Decisions). The results reveal that Liquidity Decisions is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. This is supported by (b=0.333, P value = 0.034). The positive beta explains that the SACCO's performance reaches a point where it stagnates and tends to go down whether Liquidity Decisions are managed or not as summarized in the regression model below.

$Y = 1.805+0.169X_4+0.333X_{41}^2+e$

This implied that the null hypothesis failed to be accepted and the alternative hypothesis failed to be rejected.

Table 4.26: Regression Coefficient – Liquidity Decisions and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.648	.370		7.164	.000
	Liquidity Decisions	.243	.109	.266	2.241	.028
2	(Constant)	1.805	.529		3.410	.001
	Liquidity Decisions	.169	.111	.185	1.526	.132
	Liquidity Decisions squared	.333	.154	.263	2.168	.034

a. Dependent Variable: Financial performance

Source: Author (2016)

4.9 Management Competency

This was the fifth objective the researcher analyzed on the Management Competency of the deposit taking SACCOs within Kenya. The researcher presented the results as per below subheadings.

4.9.1 Descriptive Statistical Analysis of Management Competency

The overall performance of an institution is measured by the competency of its management. Deposit taking SACCOs have not been left behind. The researcher wished to establish management competency of SACCOs and its linkage towards financial performance of the institution.

The researcher established that on offering strategic direction in relation to financial performance, it was rated highly as indicated by mean value of 3.81 and confirmed by positional average of median value of 4.00. The dispersion rate was high as indicated by standard deviation rate of 0.675 which was expected since strategic direction indicators could differ from institution to another. This is a good indicator that SACCO management have strategic direction which ensured financial performance indicators are factored in their operations and could result to effective management of the cash which would contribute to high financial performance on the SACCO in the long run.

The researcher also established availability of credit policy administration in SACCOs as indicated by mean value of 3.81. Its adherence to credit policy was rated fairly since the dispersion rate of 0.675 showed it differed greatly from one SACCO to another. Hence the need for the regulatory body to standardize credit policy and introduce standard penalties on its non-compliance. This will greatly reduce level of loan delinquency among the deposit taking SACCOs across the country and hence increase confidence level of the members on their deposit security in the institution. The data from the field also showed that implementation of internal controls in the institutions was high as indicated by the mean value of 3.96. This showed that institutions have internal policies of their own irrespective of external checkup and regulation by the regulator. This showed high internal management and respective to internal system which increases confidence level of the management by the members and positively affect the financial performance of SACCOs.

For effective management, application of professionalism is critical in ensuring better adherence to internal controls. The researcher established that application of professionalism across the institution was high as indicated by a mean value of 3.53 although the dispersion rate of 0.503 was huge but it was attributed to diversified methods of judging professionalism. This was very crucial since professionalism has direct correlation on management and contribute towards the financial performance of

an institution. Human capital management is critical on performance of any organization.

With competitive environment where most financial institutions are operating from, management of staff and reward system is essential, data gathered from the field indicated that human capital was rated fairly as indicated by mean value of 3.34 but dispersion was high as indicated by standard deviation of 0.676.This is because there was no standard indicators for measuring human capital management and appraisal system varied from one institution to the other. Finally the researcher established that management willingness towards adherence on SACCO regulation and policy was rated fairly as indicated by mean value of 3.97 which showed the effort being put by the management towards ensuring compliance of set up controls and procedures by the institutions.

Table 4.27: Management Competency Parameters

Management Competency Parameters	Mean	Median	Std. Deviation	Variance
Offering strategic direction in the SACCO as relates to financial performance of the SACCO	3.81	4.00	.675	.455
Adherence to Credit administration policy to protect members deposits and elimination of delinquent loans	3.68	4.00	.657	.431
Implementation of internal controls as they relate to financial performance of the SACCO	3.96	4.00	.502	.252
Application of professionalism in management of the SACCO	3.53	4.00	.503	.253
Handling of the SACCO human resource management & performance appraisal	3.34	3.00	.676	.457
Adherence to the SACCO regulation and regulators policies	3.97	4.00	.669	.447

Source: Author (2016)

4.9.2Contribution of the management on the SACCO financial performance

The success of any organization is hitched on the management and SACCOS are not an exempt. The researcher wished to establish the contribution of the management on the SACCO's financial performance and the data gathered from the study showed that: management make timely decision (9%); oversight and administrative roles (13%); approve investment plans (26%); educating members on loan repayment periods (4%); keeping records and managing finances (35%); ensuring members savings are profitable (4%) and boosting members with low rate loans (9%). The data was very critical since management competency is an essential element in liquidity management and contribute highly on the financial performance of the SACCOs.

Table 4.28: Contribution of the management on the SACCO financial performance

Contribution of the management on the SACCO financial performance	**Frequency**	**Percentage (%)**
Timely financial decisions	2	9
Oversight and administrative roles	3	13
Approve investment plans	6	26
Educating members on period to pay loan	1	4
Keeping records and managing finances	8	35
Ensuring their savings are getting profits	1	4
Boosting members with low rate loans	2	9
Total	**23**	**100**

Source: Author (2016)

4.9.3Correlation Analysis Management Competency

There is a strong positive relationship between Management Competency and Financial Performance of Deposit taking SACCOs in Kenya as indicated by correlation of 0.842. The p-Value of 0.001 is less than the acceptable significance level (α), hence the null hypothesis that there is no relationship between Management Competency and Financial Performance of Deposit taking SACCOS in Kenya is rejected. This shows that the

sampled data can be applied to the general population across registered deposit taking SACCOs at 95% confidence level.

Table 4.29: Correlation Analysis Management Competency

Correlations of Management Competency Parameter		Strategic Direction	Profit Margin
Strategic Direction	Pearson Correlation	1	.365**
	Sig. (2-tailed)		.001
	N	68	68
Profit Margin	Pearson Correlation	.365**	1
	Sig. (2-tailed)	.001	
	N	68	68

Source: Author (2016)

4.9.4 Regression Analysis – Management Competency and Financial Performance

Regression analysis was conducted to empirically determine whether Management Competency was a significant determinant of financial performance. Regression results in *Table 4.30* indicate the goodness of fit for the regression between management competency and financial performance was satisfactory in the linear regression. An R squared of 0.026 indicates that 2.6% of the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in management competency in the linear model. The correlation coefficient of 3.65% indicates that the combined effect of the predictor variables have a positive correlation with financial performance. However with the combination of linear and non- linear components the R square improved to 13.1% which implies that the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in management competency. The non-linear addition model is statistically significant with an F statistic of 7.831 and P value (0.007).

The model being estimated take the form of:

$$Y = \beta_0+\beta_5X_5+\beta_{51}X_{51}^2+e$$

Where Y= Financial Performance, X_1 = Linear composition of Management Competency and X_{11}^2= Non-Linear composition of Management Competency

The above model is supported by the value of R-square of 0.131 giving the model a stronger explanatory power of 13.1% compared with the linear model which gave R – Square of 0.026 which translates to 2.6% thus validating the model as shown in *Table 4.30*.

Table 4.30: Model Summary Management Competency and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.161[a]	.026	.011	.675	.026	1.746	1	66	.191
2	.361[b]	.131	.104	.643	.105	7.831	1	65	.007

a. Predictors: (Constant), Management Competency

b. Predictors: (Constant), Management Competency, Management Competency squared

Source: Author (2016)

The overall model significant was presented in *Table 4.31*. An F statistic of 4.879 indicated that the overall model was significant. This was supported by the probability value of (0.009). The reported probability of (0.009) is less than the conventional probability of (0.05). The probability of (0.009) indicated that there was a very low probability that the statement "overall model was insignificant and true and it was therefore possible to conclude that the statement was untrue.

4.9.5 ANOVA Management Competency and Financial Performance

Table 4.31 displays the regression coefficient of the independent variable (Management Competency). The result review that cash management is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. An F statistic of 1.746 indicated that the combined model was significant. This is supported by the probability value of (0.011). The reported probability of (0.011) is less than the conventional probability of (0.05) hence significant.

Table 4.31: ANOVA Management Competency and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.795	1	.795	1.746	.191[b]
	Residual	30.072	66	.456		
	Total	30.868	67			
2	Regression	4.029	2	2.014	4.879	.011[c]
	Residual	26.839	65	.413		
	Total	30.868	67			

a. Dependent Variable: Performance in deposit taking SACCOs

b. Predictors: (Constant), Management Competency

c. Predictors: (Constant), Management Competency, Management Competency squared

Source: Author (2016)

Table 4.32 displays the regression coefficients of the independent variable (Management Competency). The results reveal that management competency is statistically significant in explaining financial performance of deposit taking SACCOs in Kenya. This is supported by (b= 0.410, p value = 0.007). The negative beta explains that the deposit taking SACCOs performance reaches a point where it stagnates and tends to go down whether Management Competency is managed or not. This is summarized in the regression model below;

$$Y = 1.473+0.169X_5+ 0.410X_{51}^2+e$$

This implied that the null hypothesis failed to be accepted and the alternative hypothesis failed to be rejected.

Table 4.32: Regression Coefficient Management Competency and Financial Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.841	.473		6.012	.000
	Management Competency	.161	.122	.161	1.321	.191
2	(Constant)	1.473	.664		2.218	.030
	Management Competency	.169	.116	.168	1.452	.151
	Management Competency squared	.410	.147	.324	2.798	.007

a. Dependent Variable: Financial performance

Source: Author (2016)

4.10 SACCO Regulation

This was the moderating variable the researcher analyzed on the liquidity management of the deposit taking SACCOs within Kenya. The researcher wished to review the moderating effect of SACCO Regulation in relation to all the independent variables and dependent variables. The researcher presented the results as per below subheadings.

4.10.1 Descriptive Statistical Analysis of SACCO Regulation

The researcher has indicated that SACCO regulation was a moderating variable between liquidity management and financial performance of the deposit taking SACCOs. Regulation is a new establishment by the government of Kenya due to the growth and huge contribution of the sector on the financial sector and the economy in general. All other financial sector players are regulated and the researcher wished to find the contribution of the regulation on liquidity management and overall financial performance of the sector. The parameters used by the researcher included: awareness of the regulatory policies; determination of borrowing power by the society members; adherence to CAMELs and PEARLS principles and adherence to internal SACCO regulations and guidelines.

The researcher established that members' awareness of lending and liquidity management policies was rated fairly as indicated by mean value of 3.26 and dispersion value of 0.536 showed that awareness of the set policies could vary from one institution to the other. Knowledge of liquidity and management policies by members was a good indicator since there was a mechanism to judge and monitor financial performance of the SACCOs across the sector and members could be able to have a comparative analysis of the performance across the sector.

The regulator has set maximum borrowing power by the SACCO from the financial market to meet liquidity ratio of the institution, the researcher established that the awareness level by the members was fairly high as indicated by the mean value of 3.34 although dispersion rate was high as shown by standard deviation of 0.765, this indicated that awareness level varied from one institution to the other, hence the need of the regulatory body to increase awareness level of the lending policy to the SACCO members so that they could monitor cash management of the SACCOs.

SASRA is the government appointed regulatory authority for all SACCOs with an operation in the country, the researcher established that awareness level of the SACCO

activities was very low as indicated by the mean value of 2.42 and confirmed by positional mean of median rate of 2.00. The main challenge was high rate of dispersion as indicated by standard deviation rate of 1.195 which indicated that some members had no clue of the role of regulator. Hence the need of the SACCO regulator to market and create awareness of its activities in the sector. This is critical since it will reduce the financial risks associated with investment by the SACCO sector and raise motivation to many more individuals to put their investment in the growing sector which will positively affect the sector and contribute towards growth and achievement of middle income economy as stipulated in vision 2030.

Across the globe, the SACCO sector has regularized indicators to measure their performance indicators, these have been advocated by WOCCU and African union of SACCOs. The researcher established that adherence to PEARLS and CAMElS regulation by the deposit taking SACCOs was very low as indicated by the mean value of 2.05 and confirmed by average mean median rate of 2.00. The researcher also established that the dispersion rate was very high as indicated by standard deviation of 1.214 which showed that there are many SACCOs which were not aware of the existence of the SACCO financial indicators.

Hence the need of the regulatory Authority and other key players to sensitize the SACCOs on the need of having the financial reports prepared on the basis of the stated and agreed indicators, this will enhance comparability and will attract key investors in the SACCOs due to measurement of the market efficiency across different institutions. Finally the researcher established that adherence towards internal regulation was high as indicated by the mean value of 3.28 but the dispersion was very high was indicated by standard deviation of 1.144 which was understandable since internal regulation are not standard and vary from one institution to another.

Table 4.33: SACCO Regulation parameters

SACCO Regulation Parameters	Mean	Median	Std. Deviation	Variance
Members aware of lending and liquidity management policies	3.26	3.00	.536	.287
Determination of maximum borrowing power of the society by members	3.34	3.00	.765	.585
Policies by SASRA	2.42	2.00	1.195	1.429
Adherence to CAMEL & PEARLS principles	2.05	2.00	1.214	1.474
Adherence to Internal SACCO regulations	3.28	3.00	1.144	1.309

Source: Author (2016)

4.10.2Role of SASRA

The Kenyan government has been proactive in the management of financial sector, in the SACCO, the body in charge is Sacco regulation authority. The researcher established that respondents thought the role of the regulation was the following: sensitization of its role (11%); regulation adherences by SACCOS (17%); SACCO management support (5%); uniformity in SACCO operation (5%); interact more with SACCOS (6%) and fifty six (56%) were not aware of the role of the SACCO regulatory Authority. Hence the need of the regulator to spread its wings across all the counties and ensure that members are aware of their functions and responsibilities. This will positively affect the financial performance of the SACCOs.

Table 4.34: Role of SASRA

Role of SASRA	Frequency	Percentage (%)
Regulation adherence by SACCOS	3	17
SACCO Management support	1	5
Uniformity in SACCO operations	1	5
Interact more with SACCO	1	6
Not aware, need further orientation	10	56
Sensitization of its role	2	11
Total	**18**	**100**

Source: Author (2016)

4.11 Financial Performance

The researcher wished to establish the effect of liquidity management on the financial performance of deposit taking SACCOs in Kenya. The researcher had chosen a number of parameters to measure financial performance of the institution. Among the selected variables included: Gross profits; operating expenses; loan volumes to members; growth of membership and number of loan products issued to members. Secondary data gathered from SASRA offices reviewed the following analysis.

4.11.1 Profitability of SACCOS

The researcher summarized data from the sampled SACCOS for the last five years beginning from 2009 to 2015. The data was provided from SASRA data basis. This data was authentic since SACCOs are required to file data on a yearly basis with the SACCO regulator for compliance purposes. The data was analyzed for the last five years, this is essential since it gives a holistic view of the performance of the SACCOs and shows a trend for comparative analysis. The researcher established that growth of SACCOs in terms of profitability is on an upward trend for the last seven years. This could be

attributed by many macro-economic variables. The economy as recovered since the last 2007/2008 post-election violence and the government has put a lot of measures on the financial institution that have spurred economic growth, hence the SACCOs have had a huge growth due to economic performance for the last year and the growth will continue since the trend is positive.

Growth in profitability is affected by both liquidity management and regulation environment. Hence the researcher concluded that there was a positive correlation between liquidity management and financial performance of deposit taking SACCOS in Kenya for the last seven years.

Figure 4.6: Profitability 2009-2015

Source: Author (2016)

4.11.2 Membership Growth of SACCOs

The researcher also sought to analyses the growth of membership for the last seven years in the selected deposit taking SACCOs in Kenya. Membership in SACCO movement is critical since SACCOs are a member societies and they form ownership of the

movement. The researcher noted that there was an increase in awareness level of the need of the institution and also members' subscription was on a growing trend. Increase in membership reviews so much in the performance of SACCOs, this is because members contribute fees and also they are supposed to have an annual subscription. The growth in membership resulted in the Kenyan government decision to establish a regulatory authority and ensuring that SACCOS are well represented in the contribution of financial institution in the economy.

Data from the regulator showed that membership tripled within three years which could have resulted in improved financial performance of the SACCOs and also improved liquidity management. This showed the need for the government to increase regulations in order to reduce risks that could result from financial mismanagement.

Figure 4.7: Membership Growth 2009-2015

Source: Author (2016)

4.11.3 Loan Advances to SACCO Members

The researcher also analyzed data on loan advances for the last seven years. A point to note was membership tripled but loans only doubled during the same period of analysis. This implied that the spirit of savings is on an increasing trend in the economy which should be encouraged. The core mandate of SACCOs is to mobilize savings for members, then led money to members on a manageable interest rate. In comparison with SACCOs being less involved in investment in Non-core activities and opting to concentrate in loan advances to the SACCO members, this showed that most members have a convenient assess of the loan facility from their SACCOS hence the institution are meeting their mandate.

The role of the regulator is critical as the researcher noted an increase in delinquent of loans among a number of SACCOS which poses a financial risk in terms of liquidity management. There is a need to introduce a cash deposit policy with central bank or with the regulator since SACCOS are holding huge cash deposit with banks, hence incase a bank corrupted, the SACCOS will be largely affected in terms of their operations.

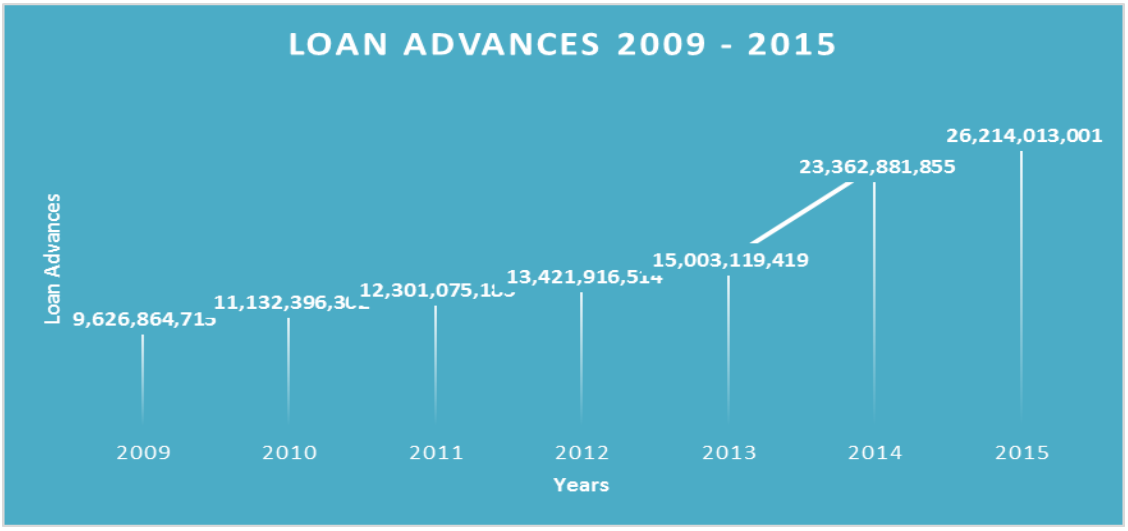

Figure 4.8: Loan Advances 2009-2015

Source: Author (2016)

4.11.4 Number of Loan Products

Product development is critical for any organization that intends to be attractive, due to huge cut throat competition from other financial institutions in the money and capital market, SACCOS were not left behind, there were a number of variables favoring the growth of SACCOS in the past seven years and the main variable was fixed and competitive interest rate in comparison to other financial institutions. Competition resulted to SACCOs competing amongst themselves, hence one way to counter that was development of a range of products to attract more membership in SACCOs.

The researcher noted that there was a huge increase of products offered by SACCOs that facilitated locking members and also played an attractive role for non-SACCO members to join the SACCO movement. This resulted in a positive growth of financial performance and also necessitated the role of SACCO regulatory authority to ensure

interest of members and the public were well catered for. The researcher also noted that various products offered were not standardized hence the need for regulatory authority to offer policy guideline on the products range that should be offered by deposit taking SACCOS in the market.

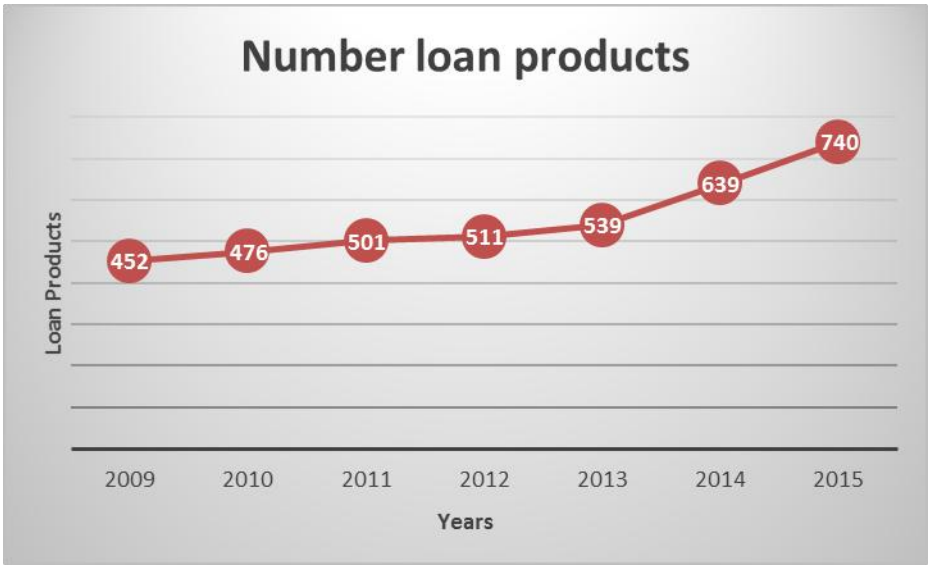

Figure 4.9: Number of Loan Products

Source: Author (2016)

4.11.5 Financial performance comparatives

The researcher sought to analyze the comparative analysis of the data and their effect on financial performance of deposit taking SACCOs in Kenya. Data from the regulatory body showed that gross profit was tremendously increasing in comparison to operating expenses. This led to review of management role in controlling operating expenditures and ensuring that profit is on the increase. In addition, loan advances to members was on an upward trend but lower in comparison to growth of membership. This was appraised and need to continue in the near future since it will result to strengthening membership and capital base hence SACCOs will play a greater role in contributing to the Country's economic growth.

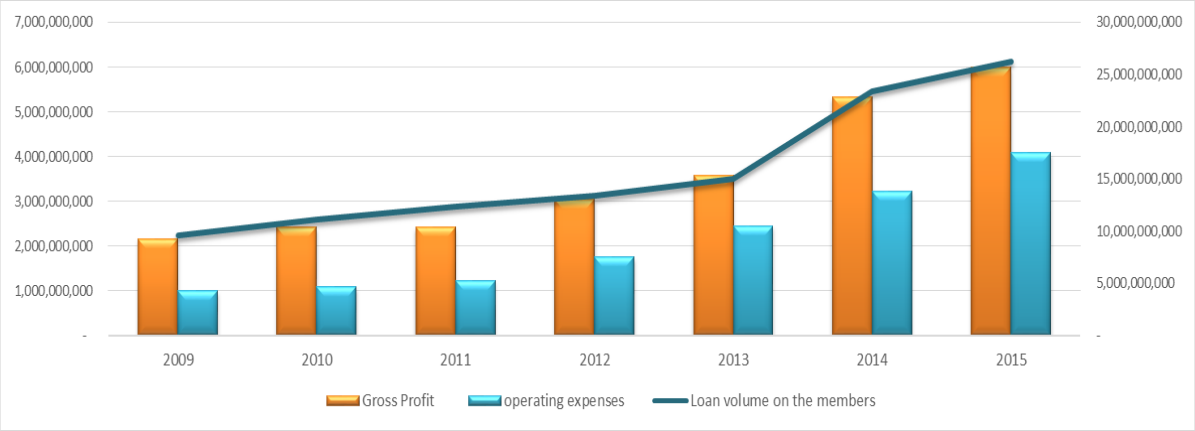

Figure 4.10: Financial performance comparatives

Source: Author (2016)

4.12Multiple Regression Analysis for the Determinants of the Financial Performance in Deposit Taking SACCOs in Kenya (Overall Model)

A multiple regression analysis was conducted to investigate the casual relationship between the independent variables and dependent variable. Regression results in *Table 4.35* indicated that the goodness of fit for the regression of independent variables and financial performance is satisfactory in the linear model. As R squared of (0.538) indicated that (53.8%) of the variances in financial performance are explained in the variances in the determinants of financial performance (cash management, loan repayment, non-core investment, liquidity decisions and management competency).

However, with the combination of linear and non-linear components of R squared improved to 69.5% which implies that the variances in financial performance of deposit taking SACCOs in Kenya are explained by the variances in the determinants of financial performance (cash management, loan repayment, non-core investment, liquidity decisions and management competency). The non-linear addition model is statistically significant with an F statistic of 26.453 and P value (0.000).

The non-linear regression model is as follows:

$$\mathbf{Y = \beta_0+\beta_1X_1+\beta_{11}X_{11}^{2}+\beta_2X_{2+}\beta_{21}X_{21}^{2}+\beta_3X_{3+}+\beta_{31}X_{31}^{2}+\beta_4X_{4+}\beta_{41}X_{41}^{2}+\beta_5X_{5+}\beta_{51}X_{51}^{2}+e}$$

Where:

Y = Financial Performance

$\mathbf{\beta_0}$**= Y** Intercept

$\mathbf{X_1}$- Linear composition of Cash Management

$\mathbf{X_2}$- Linear composition of Loan Repayment

$\mathbf{X_3}$- Linear composition of Non-Core investments

$\mathbf{X_4}$- Linear composition of Liquidity decisions

$\mathbf{X_5}$-Management Competency

$\mathbf{X_1^2}$- Non- Linear composition of Cash Management

$\mathbf{X_2^2}$- Non-Linear composition of Loan Repayment

$\mathbf{X_3^2}$- Non-Linear composition of Non-Core investments

$\mathbf{X_4^2}$- Non-Linear composition of Liquidity decisions

$\mathbf{X_5^2}$-Non-Management Competency

e- Error variable

After regression, the model took this form

Financial performance = $2.647 - 0.325X_1 - 0.073X_2 - 0.007\ X_3 + 0.219\ X_4 + 0.193X_5$

Table 4.35: Model fit for Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.402[a]	.161	.094	.646	.161	2.384	5	62	.048
2	.468[b]	.219	.143	.628	.058	4.551	1	61	.037

a. Predictors: (Constant), cash management, loan repayment, non-core investment, liquidity decisions and management competency

b. Predictors: (Constant), cash management, loan repayment, non-core investment, liquidity decisions and management competency, cash management squared, loan repayment squared, non-core investment squared, liquidity decisions squared and management competency squared.

Source: Author (2016)

4.12.1 ANOVA for the overall model

ANOVA results were presented in *Table 4.36.* The results indicated that the overall model was significant, that is, the independent variables were good joint explanatory variables/determinants for financial performance (F=2.859, P value =0.016).

Table 4.36: ANOVA for Financial Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.977	5	.995	2.384	.048[b]
	Residual	25.891	62	.418		
	Total	30.868	67			
2	Regression	6.774	6	1.129	2.859	.016[c]
	Residual	24.093	61	.395		
	Total	30.868	67			

a. Dependent Variable: Performance of deposit taking SACCOs

b. Predictors: (Constant), cash management, loan repayment, non-core investment, liquidity decisions and management competency

c. Predictors: (Constant), cash management, loan repayment, non-core investment, liquidity decisions and management competency, cash management squared, loan repayment squared, non-core investment squared, liquidity decisions squared and management competency squared.

Source: Author (2016)

4.12.2 Model Summary

The researcher presented model result as shown in the table below. Data from the model shows the relationship between dependent and independent variables of the research problem. The researcher sought to establish the relationship between liquidity management of deposit taking SACCOs and financial performance if the institutions. The researcher focused on only deposit taking SACCOs as registered by the SACCO regulation Authority in Kenya. The model intercepts were all positive hence indicating positive relationship between dependent variable (Financial Performance) and independent variables namely cash management, loan repayment, non-core investment, liquidity decisions and management competency.

Table 4.37: Research Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.647	1.028		2.576	.012
	Cash Management	-.325	.150	-.255	-2.168	.034
	Loan Repayment	-.073	.109	-.094	-.668	.507
	Non-Core Investment	-.007	.139	-.006	-.048	.962
	Liquidity Decisions	.219	.124	.239	1.770	.082
	Management Competency	.193	.118	.192	1.635	.107
	SACCO Regulation	.327	.153	.258	2.133	.037

a. Dependent Variable: Financial Performance in Deposit taking SACCOs

Source: Author (2016)

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1Introduction

This is the final chapter for the research thesis. The researcher has already done data interpretation and established the findings as per the research objectives. This chapter files research conclusions, recommendation of the study and areas of further researcher. The researcher has arranged the findings as per research objectives and concluded as per research objectives.

5.2 Summary of Findings

Data gathered both from primary and secondary sources was analyzed and interpreted, the results are hereby summarized as per the research objectives. The research problem was to establish the effect of liquidity management on financial performance of deposit taking SACCOs in Kenya.

5.2.1 Cash management and financial performance

The first research objective was to find the effect of cash management on financial performance of deposit taking SACCOs in Kenya. Various methods analytical methods were used to arrive at the findings. These methods included descriptive statistics, thematic approach, correlation analysis and regression analysis. The findings indicated that cash management has high effect on financial performance of deposit taking SACCOS in Kenya.

This observation was arrived since data showed that cash shortages was greater than cash surpluses across many SACCOs , there was minimal preparation of cash budget and by the fact that SACCOs have no access to the central lender. In addition the

monthly members' contribution was low, lack of members integrity in relation to liquidity management; lack of proper channels followed during liquidation process; methods and the techniques of depreciating assets; high level of loan demands and high loan default rate.

The study had a hypothesis that cash management affect financial performance of deposit taking SACCOs in Kenya. The results revealed that cash management was statistically significant in explaining Financial Performance of Deposit taking SACCOs in Kenya. This implied that the null hypothesis that cash management does not influence financial performance of deposit taking SACCOs failed to be accepted and the alternative hypothesis failed to be rejected

5.2.2 Loan Repayment and financial performance

The second research objective was to examine the effect of Loan Repayment on financial performance of deposit taking SACCOs in Kenya. Various methods analytical methods were used to arrive at the findings. These methods included descriptive statistics, thematic approach, correlation analysis and regression analysis. The findings indicated that was mechanism established on loan repayment and contributed high on financial performance of deposit taking SACCOS in Kenya.

This observation was arrived since data showed that the level of gross loan portfolio was average, the rate of loan default was on an increase, management had a higher provision that rate of default and accessing guarantees was not a big issue. In addition the data showed that the level of outstanding loans in the deposit taking SACCOs was very high, SACCOs have moved forward to diversify their loan products and there was high demand of funds by their members.

The study had a hypothesis that loan repayment affect financial performance of deposit taking SACCOs in Kenya. The results revealed that loan repayment was statistically significant in explaining Financial Performance of Deposit taking SACCOs in Kenya.

This implied that the null hypothesis that cash management does not influence financial performance of deposit taking SACCOs failed to be accepted and the alternative hypothesis failed to be rejected.

5.2.3 Non-core investment and financial performance

The third research objective was to examine the effect of investment in non-core business on financial performance of the deposit taking SACCOs in Kenya. Various methods analytical methods were used to arrive at the findings. These methods included descriptive statistics, thematic approach, correlation analysis and regression analysis. The findings indicated that there was minimal engagement by Deposit taking SACCOs on investment in Non- Core investment due to risks involved and high demand on loans from members and this contributed to low financial performance of deposit taking SACCOs in Kenya.

This observation was arrived since data showed that SACCO investment policy remained under core principles of Cooperatives, reliance of external borrowing was little, and diversification of SACCO investments on non-core areas was very low. In addition data reviewed that most of the deposit taking SACCOs have varied and diversified investments, huge investment interest in financial investment. A summarized data showed that over forty five (45) % of cash was held in prepayments, forty three (43) % was held in allowance for loan loss and eleven (11) % was held in balances with other SACCO societies. This showed a poor liquidity management strategy by SACCOs.

The study had a hypothesis that Non-Core investment affect financial performance of deposit taking SACCOs in Kenya. The results revealed that Non-Core investment was statistically significant in explaining Financial Performance of Deposit taking SACCOs in Kenya. This implied that the null hypothesis that Non-Core investment does not influence financial performance of deposit taking SACCOs failed to be accepted and the alternative hypothesis failed to be rejected.

5.2.4 Liquidity decisions and financial performance

The fourth research objective was to establish effect of liquidity decisions on financial performance of deposit taking SACCOs in Kenya. Various methods analytical methods were used to arrive at the findings. These methods included descriptive statistics, thematic approach, correlation analysis and regression analysis. The findings indicated that was low policies and adherence to liquidity decisions and hence could contribute to poor financial performance of deposit taking SACCOS in Kenya.

This observation was arrived since data showed that management rating on prudence of liquidity management was very low, effectiveness level of investment income usage was low and SACCOs dividend payout was larger than the market rate. In addition the data revealed that the level of issuance of new loans was very high, protection of members deposit was high, delayed in loan repayment due to bureaucracy in terms of accessing loan and delayed meetings by credit committees.

The study had a hypothesis that liquidity decisions affect financial performance of deposit taking SACCOs in Kenya. The results revealed that liquidity decisions was statistically significant in explaining Financial Performance of Deposit taking SACCOs in Kenya. This implied that the null hypothesis that liquidity decisions does not influence financial performance of deposit taking SACCOs failed to be accepted and the alternative hypothesis failed to be rejected.

5.2.5 Management competency and financial performance

The fifth research objective to evaluate the effect of management competency on financial performance of deposit taking SACCOs in Kenya. Various methods analytical methods were used to arrive at the findings. These methods included descriptive statistics, thematic approach, correlation analysis and regression analysis. The findings indicated that there are policies in place to ensure management of SACCOs affairs and it

had a great contribution towards financial performance of deposit taking SACCOs in Kenya.

This observation was arrived at, since data showed that offering strategic direction was high, availability of credit policy and that implementation of internal controls in the institution was high. In addition application of professionalism across the institutions was high, human capital was rated fairly and management willingness towards adherence of SACCO regulations and policy was rated fairly. Contribution of the management in the SACCO financial performance included: oversight and administrative roles, approve investment plans and keeping records and managing finances.

The study had a hypothesis that management competency affect financial performance of deposit taking SACCOs in Kenya. The results revealed that management competency was statistically significant in explaining Financial Performance of Deposit taking SACCOs in Kenya. This implied that the null hypothesis that management competency does not influence financial performance of deposit taking SACCOs failed to be accepted and the alternative hypothesis failed to be rejected.

5.2.6 Financial performance of Deposit Taking SACCOs

The study sought to establish effect of liquidity management on financial performance of deposit taking SACCOs in Kenya. Descriptive statistic, regression analysis and ANOVA were conducted. The results showed that the growth of SACCOs in terms of profitability has been growing tremendously for the last seven years, there was an increase in awareness level of the need of the institution and also members' subscription was on a growing trend, membership tripled but loans only doubled during the same period of analysis and there was a huge increase of products offered by SACCOs that facilitated locking in members to the institutions.

5.3 Conclusions

Conclusions were arrived at the influence of independent variables (cash management, loan repayment, non-core investment, liquidity decisions and management competency), influence of moderating variable (SACCO regulation) on dependent variable of financial performance of deposit taking SACCOs in Kenya based on the findings of the study.

5.3.1 Cash Management and Financial Performance

Cash management is very critical as a liquidity management tool in deposit taking SACCOs. The researcher studied the following parameters namely: preparation of regular cash budget, cash flow forecast, occurrence of cash shortages and surplus and monthly members' contribution. The researcher found that deposit taking SACCOs need to address the parameters critically to ensure that there is adequate cash management policy within the institutions to ensure optimal financial performance since they have a great role on the achievement of the Vision 2030 and the sector is a great contributor of the financial sector in the Kenyan economy. The management need to ensure there are adequate internal cash management controls to ensure that there is optimal cash, strategies are in place during minimal cash and surplus cash since either of the side will contribute to liquidity risks to the institution.

5.3.2 Loan Repayment and Financial Performance

Loan repayment is the obligation of members to ensure that SACCOs have adequate cash to meet new members loan obligations. The researcher noted there were huge credit risks encountered among different SACCOs, hence the need for managements to ensure there are improved policies on credit terms and this will reduce liquidity risk and improve financial performance of the SACCOs. With the SACCO regulator on board, there is need to introduce compliance of International Financial Reporting Standards (IFRS) to ensure that all SACCOs have a standard way of reporting and it will be easier to monitor loan obligation among different SACCOs since huge loans have a ripple

effect on the performance of the economy in relation to inflation rate and gross domestic product of the country.

5.3.3 Investment on Non-Core Activities and Financial Performance

Investment on non-core activities seemed not to interest most SACCOs, this is because the industry is on the rise in the economy and the demands from members on loan obligation and issuance of bonus is very high. The core competency of SACCOs is ensuring members can access credit facility and since the demand out slip supply most SACCOs decided to focus on their core mandate. Hence for SACCOs that feel they can increase the investment on Non-core activities need to ensure they do not affect the core mandate of the institution.

5.3.4 Liquidity Decisions and Financial Performance

Effective liquidity management require well regulated sector, since the liquidity and financial risk exposure is very high. That is the reason behind creation of SASRA by the Kenyan government. There is need to revamp the role of the regulator especially creating its awareness levels since most of the members seemed not to understand the mandate of the regulator. The regulator is playing a very critical role and needed to be as strong as Central Bank of Kenya to ensure SACCOs are as strong as banks in the financial sector. And since SACCOs contribute highly on the performance of the Kenyan financial market, the awareness level of the regulator will play a great role in strengthening the contribution of deposit taking SACCOs to the economy of the country.

5.3.5 Management Competency and Financial Performance

Most of the sampled SACCOs seemed to attract more knowledgeable employees hence there was increase in decision making policies of the institutions. On the SACCO Act (2011), there is the minimum requirement of the financial advisors to the SACCOs and the data showed that most SACCOs have competent employees who are able to

undertake critical financial and management decision. Hence the huge effect on the improvement of SACCOs on their financial performance across the sector.

5.3.6 Financial Performance of Deposit Taking SACCOs

It was possible to conclude from the study findings that there was improved and increased financial performance of deposit taking SACCOs across the years. The performance indicators had all increased in number and growth. This implies that the employees and members of the SACCOs had embraced the idea of joining SACCOs and using their products fully.

5.4 Recommendations of the Study

The recommendations were made regarding the influence of the independent variables: Cash Management, Loan Repayment, Non-Core Investment, Liquidity Decisions and Management Competency on financial performance of Deposit Taking SACCOs in Kenya.

5.4.1 Cash Management and Financial Performance

The study sought to find the effect of cash management on financial performance of deposit taking SACCOs in Kenya. The study recommends that management should put tighter internal controls system for cash management. Also there was recommendation on SACCO members to have a graduated increase on their deposit on annual basis to enhance cash flow for the better service of loan services. The study also recommends to the SASRA regulator to introduce cash ratios to be deposited within the SACCO regulator. This will enable control of liquidity in the deposit taking SACCOs and also help on overnight borrowing to assist the SACCOS assess the regulator during cash shortage and release cash surpluses when there is excess funds

5.4.2 Loan Repayment and Financial Performance

The study sought to examine the effect on loan repayment on financial performance of deposit taking SACCOs in Kenya. Management had taken precaution measures on management of gross loans, the study recommends standard provisions of loan loss as per international accounting standards across all the deposit taking SACCOs to protect members deposit and build financial investment confidence in the sector. The study recommends introduction of other forms of loan guarantees for loan issuance since members' investments is on huge risk exposure when left only to members deposit guarantors.

5.4.3 Investment on Non-Core Activities and Financial Performance

The study sought to assess the extent of investment in non-core business on financial performance of the deposit taking SACCOs in Kenya. The study recommends a key focus on SACCO mandate on issuance of loans to be given a priority more than investment in non-core assets. Also since SACCOs lack investment expertise, there need to be a balance between risk management and liquidity management initiated by management of the SACCOs. The study recommends that SASRA closely monitor liquidity ratios and investments risk ratios to ensure members can assess loans as and when required for national and personal development.

5.4.4 Liquidity Decisions and Financial Performance

The study sought to establish the effect of liquidity decisions on financial performance of deposit taking SACCOs in Kenya. The study recommends prudent measures on liquidity management especially on liquidity ratios and cash flow forecast. The study also recommends establishment of dividend payment policy that reflect financial market dynamics and prudent investment policy of SACCO funds, since some members experience delay in issuance of loans, there is need for policy adherence to CAMEL and PEARLS by SACCO management. Also the study recommends of policy development

on member fund protection in relation to efficient market hypothesis and creation of robust financial market economy.

There is need for introduction of quarterly financial reporting in the sector, this will ensure the market is efficient and the members and external investors are able to monitor liquidity management and detect liquidity and credit risks exposed to their investments early enough. Since all financial services players under Nairobi Security Exchange adhere to frequent reporting, also there is need to encourage registering of SACCOs on the Security Exchange to better increase financial management and efficient investment decisions.

5.4.5 Management Competency and Financial Performance

The study sought to evaluate the effect of management competency on financial performance of deposit taking SACCOs in Kenya. The study recommends SASRA to introduce credit policy and introduce penalties for non-compliance. Also the study recommends capacity building of financial and investment management especially SACCO directors and management. This will go a long way in strengthening the management competency and financial performance in deposit taking SACCOs in Keya.

5.5 Areas for Further Research

There is always increase of knowledge, hence the researcher recommend the following areas for further research.

In the Kenyan market, the SACCOs interest rate has been constant for very long period of time. The rate is currently 12%, since there are a number of variables that contribute towards 12%, there is need for further research since even when the rate if inflation is very high, SACCOs continue to report profitability especially during the last five years the researcher undertook the study. The members seem to have huge demand for loans and most SACCOs are not in a position to meet the loan demands in comparison to deposit supplies, there is need for further research on the performance on the loan

towards better economic development and this will inform policy review by the government and other donors on the development of the sector.

SACCOs are a member movement, across the board, most of them seem to pay better dividends that seems to be more attractive than the other players in the financial market. There is need to do further research on the dividend policy of deposit taking SACCOs since for the last five years, it did not affect SACCOs profitability. Future studies could also focus on a comparative study among various sectors. Future studies should apply different research instruments like focus group discussions and primary data only to involve respondents in discussions in order to generate detailed information which would help improve financial performance of SACCOs.

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APPENDICES

Appendix I: Research Instruments

SECTION A GENERAL INFORMATION

1. Gender of respondent :Male [ ] Female [ ]
2. Length of service: <5 years [ ] 6-10 years [ ] Above 10 Years [ ]
3. Education level : Primary [ ] Secondary [ ] College [ ] Undergraduate [ ] Post graduate [ ]

SECTION B: CASH MANAGEMENT

4. This sub section has statement related to cash management within deposit taking SACCOs. Use the scale of Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) and Strongly Disagree (1).

	Statement	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
		5	**4**	**3**	**2**	**1**
i	My SACCO undertake regular budget cash budget					
ii	There is always Occurrence of cash shortages					

5. Please indicate the average monthly member's contribution in Kenya shillings of your SACCO as per the following ranges.
   Below 1000[ ] 1001-2000 [ ]2001-3000 [ ] 3001-4000 [ ] 4001-5000[ ] Above 5000 [ ]
6. What are the challenges experienced by the SACCO on adherence of liquidity management policies?
   ……
   ……

SECTION C: LOAN REPAYMENT

7. This sub section has statement related to loan repayment within deposit taking SACCOs. Use the scale of Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) and Strongly Disagree (1).

	Statement	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
		5	**4**	**3**	**2**	**1**
i	The SACCOs gross loan portfolio is adequate					
ii	The rate of loan default in the SACCO is minimal					

8. Please Indicate the type of loan products offered by your SACCO
   i) …….
   ii) …….
   iii) …….
9. What are key challenges experienced on the members loan repayment?
   …….
   ……..
   ……..

SECTION D: NON-CORE INVESTMENTS

10. This sub section has statement related to Non-Core Investments within deposit taking SACCOs Use the scale of Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) and Strongly Disagree (1).

	Statement	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
		5	**4**	**3**	**2**	**1**
i	The SACCO investment policy remains within the core principles of the cooperative					
ii	SACCOs rely on external borrowing to finance their activities					

11. What proportion of the assets is represented by the following assets? As per the stated ratings

	NON-CORE INVESTEMENTS	0-20%	21-40%	41-60%	61-80%	81-100%
i	Land and buildings					
ii	Listed company Shares					
iii	Treasury bills& Bonds					
iv	Off shore investments					

12. What is your opinion in SACCOs diversification on noncore investments in relation to liquidity management?

……

……

……

SECTION E: LIQUIDITY DECISIONS

13. This sub section has statement related to Liquidity decisions within deposit taking SACCOs Use the scale of Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) and Strongly Disagree (1).

	Statement	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
		5	**4**	**3**	**2**	**1**
i	The SACCO Dividend rate is adequate in comparison to the market rate					
ii	SACCOs has a financial reporting policy					
iii	There is Protection of members deposit by SACCO management					

14. Do you experience cases where members have applied for loan and there is delay on issuance of loan? Yes ( ) No ( )

15. If yes, please explain various reasons behind the delay of loan disbursement

……

……

SECTION F: MANAGEMENT COMPETENCY

16. This sub section has statement related to management competency within deposit taking SACCOs Use the scale of Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) and Strongly Disagree (1).

	Statement	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
		5	**4**	**3**	**2**	**1**
i	Offering strategic direction in the SACCO as relates to financial performance of the SACCO					
ii	Adherence to Credit administration policy to protect members deposits and elimination of delinquent loans					
iii	Implementation of internal controls as they relate to financial performance of the SACCO					

17. What is the contribution of the management on the SACCO financial performance

……..

……..

SECTION G: SACCO REGULATION

18. This sub section has statement related to SACCO regulation within deposit taking SACCOs Use the scale of Strongly Agree (5) Agree (4) Neutral (3) Disagree (2) and Strongly Disagree (1).

	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		5	**4**	**3**	**2**	**1**
i	Adherence to CAMEL & PEARLS principles					
ii	Adherence to Internal SACCO regulations					
iii	Adherence to Policies by SASRA					

19. What is your opinion on the role of SASRA on regulation of SACCOs in Kenya

……..

……

SECTION H: FINANCIAL PERFOMANCE

20. Please indicate the following financial performance variables of your SACCO for the last 5 years.

	Financial performance of the SACCO	2010	2012	2013	2014	2015
i	Gross Profit					
ii	operating expenses					
iii	Members of the Sacco					
iv	Number loan products					
v	Loan volume on the members					

Appendix II: List of registered Deposit Taking SACCOS in Kenya

1. 2nk SACCO Society Ltd
2. Afya SACCO Society Ltd
3. Agro-Chem SACCO Society Ltd
4. All Churches SACCO Society Ltd
5. Ardhi SACCO Society Ltd
6. Asili SACCO Society Ltd
7. Bandari SACCO Society Ltd
8. Baraka SACCO Society Ltd
9. Baraton University SACCO Society Ltd
10. Biashara SACCO Society Ltd
11. Bingwa SACCO Society Ltd
12. Boresha SACCO Society Ltd
13. Capital SACCO Society Ltd
14. Centenary SACCO Society Ltd
15. Chai SACCO Society Ltd
16. Chuna SACCO Society Ltd
17. Cosmopolitan SACCO Society Ltd
18. County SACCO Society Ltd
19. Daima SACCO Society Ltd
20. Dhabiti SACCO Society Ltd
21. Dimkes SACCO Society Ltd
22. Dumisha SACCO Society Ltd
23. Egerton SACCO Society Ltd
24. Elgon Teachers SACCO Society Ltd
25. Elimu SACCO Society Ltd
26. Enea SACCO Society Ltd
27. Faridi SACCO Society Ltd
28. Fariji SACCO Society Ltd

29. Fortune SACCO Society Ltd
30. Fundilima SACCO Society Ltd
31. Gastameco SACCO Society Ltd
32. Githunguri Dairy & Community SACCO Society Ltd
33. Goodway SACCO Society Ltd
34. Gusii Mwalimu SACCO Society Ltd
35. Harambee SACCO Society Ltd
36. Hazina SACCO Society Ltd
37. Ig SACCO Society Ltd
38. Ilkisonko SACCO Society Ltd
39. Imarika SACCO Society Ltd
40. Imarisha SACCO Society Ltd
41. Imenti SACCO Society Ltd
42. Jacaranda SACCO Society Ltd
43. Jamii SACCO Society Ltd
44. Jitegemee SACCO Society Ltd
45. Jumuika SACCO Society Ltd
46. Kaimosi SACCO Society Ltd
47. Kathera Rural SACCO Society Ltd
48. Kenpipe SACCO Society Ltd
49. Kenversity SACCO Society Ltd
50. Kenya Achievas SACCO Society Ltd
51. Kenya Bankers SACCO Society Ltd
52. Kenya Canners SACCO Society Ltd
53. Kenya Highlands SACCO Society Ltd
54. Kenya Midland SACCO Society Ltd
55. Kenya Police SACCO Society Ltd
56. Joinas SACCO Society Ltd
57. Kimbilio Daima SACCO Society Ltd

58. Kingdom SACCO Society Ltd
59. Kipsigis Edis SACCO Society Ltd
60. Kite SACCO Society Ltd
61. Kitui Teachers SACCO Society Ltd
62. Kmfri SACCO Society Ltd
63. Kolenge Tea SACCO Society Ltd
64. Konoin SACCO Society Ltd
65. Koru SACCO Society Ltd
66. Kwale Teachers SACCO Society Ltd
67. Kwetu SACCO Society Ltd
68. K-Unity SACCO Society Ltd
69. Lamu Teachers SACCO Society Ltd
70. Lainisha SACCO Society Ltd
71. Lengo SACCO Society Ltd
72. Mafanikio SACCO Society Ltd
73. Magadi SACCO Society Ltd
74. Magereza SACCO Society Ltd
75. Maisha Bora SACCO Society Ltd
76. Marsabit Teachers SACCO Society Ltd
77. Mentor SACCO Society Ltd
78. Metropolitan National SACCO Society Ltd
79. Miliki SACCO Society Ltd
80. Mmh SACCO Society Ltd
81. Mombasa Port SACCO Society Ltd
82. Mudete Tea Growers SACCO Society Ltd
83. Ollin SACCO Society Ltd
84. Murata SACCO Society Ltd
85. Mwalimu National SACCO Society Ltd
86. Mwietheri SACCO Society Ltd

87. Mwingi Mwalimu SACCO Society Ltd
88. Muki SACCO Society Ltd
89. Mwito SACCO Society Ltd
90. Nacico SACCO Society Ltd
91. Nafaka SACCO Society Ltd
92. Nandi Farmers SACCO Society Ltd
93. Nanyuki Equator SACCO Society Ltd
94. Narok Teachers SACCO Society Ltd
95. Nassefu SACCO Society Ltd
96. Nation SACCO Society Ltd
97. Nawiri SACCO Society Ltd
98. Ndege Chai SACCO Society Ltd
99. Ndosha SACCO Society Ltd
100. Ng'arisha SACCO Society Ltd
101. Noble SACCO Society Ltd
102. Nrs SACCO Society Ltd
103. Nufaika SACCO Society Ltd
104. Nyahururu Umoja SACCO Society Ltd
105. Nyala Vision SACCO Society Ltd
106. Nyambene Arimi SACCO Society Ltd
107. Nyati SACCO Society Ltd
108. New Forties SACCO Society Ltd
109. Orient SACCO Society Ltd
110. Patnas SACCO Society Ltd
111. Prime Time SACCO
112. Puan SACCO Society Ltd
113. Qwetu SACCO Society Ltd
114. Rachuonyo Teachers SACCO Society Ltd
115. Safaricom SACCO Society Ltd

116. Sheria SACCO Society Ltd
117. Shirika SACCO Society Ltd
118. Simba Chai SACCO Society Ltd
119. Siraji SACCO Society Ltd
120. Skyline SACCO Society Ltd
121. Smart Champions SACCO Society Ltd
122. Smart Life SACCO Society Ltd
123. Solution SACCO Society Ltd
124. Sotico SACCO Society Ltd
125. Southern Star SACCO Society Ltd
126. Shoppers SACCO Society Ltd
127. Stake Kenya SACCO Society Ltd
128. Stima SACCO Society Ltd
129. Sukari SACCO Society Ltd
130. Suba Teachers SACCO Society Ltd
131. Supa SACCO Society Ltd
132. Tai SACCO Society Ltd
133. Taifa SACCO Society Ltd
134. Taraji SACCO Society Ltd
135. Tembo SACCO Society Ltd
136. Tenhos SACCO Society Ltd
137. Thamani SACCO Society Ltd
138. Transcounties SACCO Society Ltd
139. Trans Nation SACCO Society Ltd
140. Times U SACCO Society Ltd
141. Tower SACCO Society Ltd
142. Trans- Elite County SACCO Society Ltd
143. Ufanisi SACCO Society Ltd
144. Uchongaji SACCO Society Ltd

145. Ukristo Na Ufanisi Wa Angalicana SACCO Society Ltd
146. Ukulima Saco Society Ltd
147. Unaitas SACCO Society Ltd
148. Uni-County SACCO Society Ltd
149. United Nations SACCO Society Ltd
150. Unison SACCO Society Ltd
151. Universal Traders SACCO Society Ltd
152. Vihiga County Farmers SACCO Society Ltd
153. Vision Point SACCO Society Ltd
154. Vision Africa SACCO Society Ltd
155. Wakenya Pamoja SACCO Society Ltd
156. Wakulima Commercial SACCO Society Ltd
157. Wanaanga SACCO Society Ltd
158. Wananchi SACCO Society Ltd
159. Wanandege SACCO Society Ltd
160. Washa SACCO Society Ltd
161. Waumini SACCO Society Ltd
162. Wevarsity SACCO Society Ltd
163. Winas SACCO Society Ltd
164. Yetu SACCO Society Ltd

Source: SASRA website, 31.12.2015

Appendix III: Profitability of SACCOS

	Code	2009	2010	2011	2012	2013	2014	2015
Baraka	S1	19,384,102	22,164,334	27,558,299	32,977,373	45,996,554	39,341,149	54,952,583
Biashara	S2	24,822,075	35,989,332	50,703,000	72,959,488	95,325,293	119,438,351	146,502,196
Bingwa	S3		-				519,641,649	587,850,374
Centenary	S4	4,184,326	7,924,037	42,096,886	242,900,461	284,466,739	348,244,137	372,549,348
Nawiri	S5	103,681,231	109,238,808	13,060,847	18,938,389	23,890,666	38,664,864	53,913,721
Winas	S6	118,983,771	129,167,043	119,070,301	58,948,360	59,038,675	59,038,676	60,740,490
Fortune	S7	18,791,979	15,623,064	220,229,297	89,624,627	100,587,282	104,445,879	116,831,124
Imenti	S8	11,505,945	16,696,711		50,858,465	67,216,889	83,907,082	93,259,803
Laikipia Teachers	S9	166,375,240	111,859,440	19,600,700	24,585,431		297,614,177	349,617,964
Enea	S10	15,416,723	15,331,746		18,642,595	23,380,060	27,532,924	33,109,835
Maua Methodist Hospital	S11	28,473,848	34,758,440	17,392,000	22,430,656	219,029,423	260,783,500	286,448,858
Capital	S12	111,756,090	133,254,389	7,833,480	212,543,683	23,580,474	24,271,009	24,436,951
Solution	S13	214,655,381	236,818,800	114,177,792	38,739,477	23,832,511	50,471,719	61,436,050
Dhabiti	S14		39,504,228	236,817,000	102,159,970	98,831,853	116,593,708	137,953,210
Meru South Farmers	S15	74,792,394	93,925,583	39,578,158	287,459,459	326,680,023	377,044,007	421,035,172
Muhigia	S16	188,658,637	200,356,827	98,926,216	123,342,020	57,940,936	149,948,235	177,293,752
Daima	S17	64,666,560	60,548,044	238,142,135	18,770,454	21,761,618	26,204,489	25,470,484
Ndosha	S18	14,515,719	14,947,690	65,421,450	50,746,435	36,335,734		
Ntiminyakiru Rural	S19	19,122,490	12,441,885	14,947,691	44,463,817	42,500,912	42,060,669	44,703,960
Nyambene Arimi	S20	45,020,910	49,173,378	12,441,885	379,146,000	448,290,292	509,754,097	582,112,189
Nyeri Teachers	S21	244,438,084	284,135,843	51,834,068		35,223,896	37,152,561	46,198,757
County	S22	34,797,776	38,620,996	332,452,000		349,627,000	420,013,124	447,392,274
Siraji	S23	8,591,663	10,010,266	10,010,266	307,733,597	240,259,477	288,213,543	342,536,103
Yetu	S24	100,880,750	135,921,633	145,202,917	60,255,847	64,033,672	68,350,103	86,113,048

Taifa	S25	215,176,309	223,577,550	300,215,489	268,522,414	280,947,925	346,925,093	352,981,174
Tharaka Nithi	S26	147,526,891	150,876,500		23,620,488	32,719,868	45,429,838	56,111,257
Thamani	S27	50,003,652	55,925,487	57,002,366	29,050,634	33,429,647	33,198,479	30,854,283
Times U	S28	15,245,635	16,836,307	19,582,125	195,529,568	193,024,241	221,359,531	225,121,368
Wakulima Dairy	S29	13,266,356	16,871,279	16,677,000	28,121,883	57,940,936	397,078,450	483,294,268
Wananchi	S30	85,938,983	150,785,934	149,810,515	235,675,793	288,037,618	277,638,373	290,287,998

Appendix IV: Number of SACCO Members

SACCOS	Code	2009	2010	2011	2012	2013	2014	2015
Baraka	S1	3,863	8,819	9,539	9,953	10,344	11,125	13,205
Biashara	S2	1,560	8,614	8,614	1,668	29,674	41,205	48,306
Bingwa	S3						109,635	122,793
Centenary	S4	1,991	4,380	3,829	10,672	38,302	39,371	53,453
Nawiri	S5	83,020	84,818	4,380	7,153	8,396	15,698	17,955
Winas	S6	6,249	6,577	100,933	3,572	5,525	6,023	8,854
Fortune	S7	49,943		6,985	22,402	25,239	28,277	32,060
Imenti	S8	2,654	2,931		16,644	25,881	25,881	28,108
Laikipia Teachers	S9		3,474	3,158	12,359			
Enea	S10			3,500	57,970	4,014	4,582	5,040
Maua Methodist Hospital	S11			11,599	3,638	4,071	8,418	9,525
Capital	S12	19,290	25,680	1,143	3,542	13,060	14,948	17,500
Solution	S13	8,672	8,610	30,559	1,180	1,246	1,518	1,669
Dhabiti	S14			8,734	49,195	50,335	50,721	51,934
Meru South Farmers	S15			16,644	4,978	5,403	6,003	7,024
Muhigia	S16	3,989	4,109	44,399	100,933	111,002	86,537	98,258
Daima	S17	12,903	12,889	4,201	2,759	2,943	3,612	4,748
Ndosha	S18		1,761	20,763	43,544	-		

Ntiminyakiru Rural	S19	4,643	6,574	2,689	5,243	5,829	5,829	6,233
Nyambene Arimi	S20	3,662	5,233	6,574	8,469	8,980	9,549	10,314
Nyeri Teachers	S21	6,907	7,213	5,243		3,423	6,381	6,594
County	S22	3,070	3,218	7,904		8,247	10,478	10,662
Siraji	S23		1,257	1,598	93,017	104,372	106,606	111,253
Yetu	S24	6,881	7,236	7,236	10,037	10,232	8,742	9,023
Taifa	S25	63,741	72,877	72,963	13,000	13,707	14,113	16,008
Tharaka Nithi	S26		12,755		6,731	11,552	11,552	12,827
Thamani	S27		9,751	9,789	16,134	14,749	14,966	17,864
Times U	S28	2,833	2,838	6,719	58,004	60,730	57,776	61,168
Wakulima Dairy	S29	4,971	5,940	5,712		9,123	10,114	12,565
Wananchi	S30	27,400	34,712	45,090	21,866	22,192	23,815	24,893

Appendix V: Growth of Loan Volumes

	2009	2010	2011	2012	2013	2014	2015
Baraka	41,291,007	43,994,323	62,366,507	83,433,228	101,924,524	132,222,564	132,648,070
Biashara	103,553,907	154,079,128	221,348,000	265,972,843	401,095,084	478,077,403	585,661,468
Bingwa						2,185,725,108	2,304,756,818
Centenary	31,624,887	55,416,682	138,577,774	1,042,669,150	1,282,332,229	1,498,467,917	1,529,370,983
Nawiri	316,104,241	247,602,271	87,192,877	134,377,373	182,639,366	296,181,606	349,184,163
Winas	772,828,805	801,261,545	294,646,702	130,791,998	141,585,757	153,246,234	141,033,581
Fortune	200,900,199	707,593,629	986,416,179	168,109,257	185,873,127	245,146,562	318,251,766
Imenti	73,882,923	83,535,463	1,776,396,574	133,312,571	184,773,572	273,370,070	279,970,344
Laikipia Teachers	279,760,252	820,373,822	82,519,000	45,934,409		1,458,670,077	1,404,457,417
Enea	46,729,102	38,280,010		1,929,998,518	101,762,674	131,562,065	150,062,239
Maua Methodist Hospital	120,449,939	113,645,629	45,011,000	93,948,622	1,100,766,692	1,280,031,130	1,465,056,017
Capital	597,237,827	648,324,154	110,123,690	1,071,274,540	33,085,719	39,283,689	49,020,046
Solution	1,543,355,752	1,579,214,666	734,405,643	133,856,236	133,825,159	189,475,354	229,196,580
Dhabiti		126,550,199	1,563,423,000	335,490,948	373,633,264	438,835,050	535,304,107
Meru South Farmers	389,357,849	392,763,459	127,035,039	1,551,961,676	1,687,564,822	2,010,271,309	2,303,732,044
Muhigia	1,049,149,052	1,348,926,511	384,768,621	206,597,954	248,335,855	294,721,543	467,978,011
Daima	175,082,217	134,801,351	1,357,969,000	87,017,356	96,519,005	115,466,184	124,065,805
Ndosha	65,599,347	66,650,758	154,265,281	137,913,809	63,863,695		
Ntiminyakiru Rural	110,011,90	92,665,206	66,650,759	60,904,735	81,665,730	114,454,46	121,141,03

	8					3	3
Nyambene Arimi	77,431,826	70,709,476	92,665,206	2,059,072,000	2,491,478,573	2,922,314,031	3,234,369,943
Nyeri Teachers	1,018,674,828	1,579,513,847	66,029,677		82,824,886	129,051,686	177,096,398
County	126,730,722	116,451,911	1,801,336,000		1,664,789,000	2,010,874,440	2,139,019,691
Siraji	53,530,724	50,794,849	59,960,436	570,460,567	746,177,573	824,410,587	1,150,289,422
Yetu	389,839,312	502,161,933	701,336,906	201,588,703	205,901,400	243,029,304	256,374,148
Taifa	748,876,367	811,658,219	556,827,999	1,320,644,728	1,341,687,020	1,533,734,070	1,835,524,056
Tharaka Nithi	821,547,888	-		106,567,502	147,782,139	185,437,329	243,840,409
Thamani	155,410,283	180,644,278	189,547,233	97,510,176	112,946,587	123,067,824	190,230,083
Times U	54,287,193	65,328,877	101,481,058	414,142,013	541,299,947	833,756,353	810,063,054
Wakulima Dairy	33,186,706	38,130,066	75,859,000	171,785,146	248,335,855	2,052,108,087	2,425,560,562
Wananchi	230,429,652	261,324,040	462,916,024	866,580,456	1,018,650,165	1,169,889,815	1,260,754,744