EFFECT OF CAPITAL ADEQUACY ON THE FINANCIAL PERFORMANCE OF SACCOS IN SAMBURU COUNTY

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ABSTRACT

The study established the effect of capital adequacy on the financial performance of SACCOs in Samburu County, Kenya. There were 34 active Savings and Credit Co-operative Societies. The study was guided by the Liquidity Preference Theory by Keynes in 1936 and Efficiency Structure Theory by Frantz Roger in 1988. The study adopted descriptive research survey design. Data was collected by use of questionnaires from a sample of 26 SACCO managers selected using purposive sampling technique. Data collected was analyzed for descriptive statistics (frequencies, means and percentages) and inferential statistics (Pearson correlation and regression analysis) with the aid of the SPSS software. The results were presented in the form of charts and tables. The study established that capital adequacy did not have a significant influence on the financial performance of SACCOs in Samburu County. Following this, the study recommended that the SACCO management should consider mobilizing additional capital so as to ensure that their SACCO has enough funds to service all the loans requested by members.

INTRODUCTION

A Savings and Credit Cooperative is a form of cooperative whose purpose is to pool the members ' savings and then provide them with credit facilities (UN-HABITAT, 2010). Savings and Credit Co-operative Societies are formed with the general objective of promoting the economic interests and general welfare of its members. These are important institutions because they are capable of advancing loans at interest rates, lower than other financial institutions' charges. SACCOs play a pivotal role on the economies of the world. Globally, the industry has over one billion memberships and a workforce of over employed 250 million people. This is a sector that generates a turnover of 2.2 trillion US Dollars while providing infrastructure and services that the society needs to flourish. As at 2014, there were 57,000 Savings and Credit Co-operative Societies (SACCOs) spread across 105 countries (World Co-operative Monitor, 2014).

In 1844, Robert Owen established the first ever SACCO. Co-operative activities have existed throughout history (Cobia, 2008). Man has been working with others since the early days to help kill large animals for survival and to achieve the goals they could not achieve if they worked independently. Cooperation has happened all over the world. Ancient records show that cooperative farming was practiced by the Babylonians and that the Chinese formed similar savings and loan associations to those currently in use. In North America, all joint efforts were needed to clear land in preparation for crop planting, threshing beans, and barn raisings. It is believed that the first organized cooperative enterprise was formed in 1752 in the United States, which is about a quarter of a century before the Declaration of Independence.

According to ICA (2009) Rochdale Pioneers was the founder of the contemporary Cooperative Movement in Lancashire, England, to deliver cheap alternative to poor-quality and adulterated food and provisions food, by the use of surplus so as to benefit the community. Subsequently, the co-operative movement has succeeded spreading throughout the world and incorporating all parts of the economy. The principles that supported cooperatives ways of doing trade is still recognized today as the basis upon which all co-operatives operate.

In Africa, the SACCO idea sprung up in various parts of the continent in the early years of the 20th Century. In Ghana for instance, a Roman Catholic priest, Father John McNulty helped villagers to form a Savings and Credit Co-operative in Jirapa town (Africa Confederation of Cooperative Savings and Credit Associations (ACCOSCA) (2014). Currently, the continent of Africa has membership of

16 million, which is 8 percent of the whole world membership with a saving of 62% and loans of 65% being third after Asia and North America, which has 36 million and 102 million respectively (Barus, *et al.* 2017). Some of the services provided by SACCOs in Africa include normal loans, emergency loans, school fees loans and front office services for example; payment of salaries, salary advances, bank cheques, safe keeping of documents, and Automated Teller Machines (ATMs) support services (Ngaira, 2011). This therefore means that their financial performance is crucial as poor performance can lead to massive job losses.

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 24 percent in 2014 (Hesse & Cihak, 2017). 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, 2014). 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, 2017).

Cooperatives were established in Kenya in 1908 and membership was limited to white colonial settlers. Lumbwa, now Kipkelion district, is where the first cooperative was created. In 1944, Africans were allowed to form and join cooperatives by colonial officers (Gamba & Komo, 2012). A new Cooperative Societies Ordinance was enacted in 1945 that allowed African involvement in the cooperative movement. In 1946 a cooperative department was established and a cooperative registrar appointed. In 1950 most colonial civil servants began supporting and encouraging cooperative growth and by 1952 about 160 cooperatives were registered (Alila & Obado, 1990). There were about 1000 cooperatives in 1963, which since then has grown rapidly in size. In recognition of SACCO's growing importance and complexity, a SACCO Societies' Act was passed in 2008 to pave the way for robust implementation of SACCO's prudential requirements through FOSAs. This gave rise to SACCO Regulatory Authority (SASRA). The body charged with the responsibility of regulating deposit-taking SACCOs.

According to Bwana and Mwakujonga (2013), depending on the membership profile different types of SACCOs exist and the items applied to the members vary accordingly. Essentially, there are three broad categories of SACCOs, such as SACCOs based on the population; SACCOs based on workers, and agricultural SACCOs. Today the co-operative movement now contributes well over 45 per cent of Kenya's GDP and it is estimated that at least one out of every two Kenyans directly or indirectly derives his/her livelihood from the co-operative movement. While the exact number of SACCOs operating in Kenya is not known, estimates range from almost 4,000 up to 5,000 (Financial Sector Deepening (FSD), 2014).

Liquidity Management of Savings and Credit Co-operative Societies

Liquidity is the ability of a business entity to honour all cash payment commitments as they fall due (Kimathi, 2014). In financial terms, this is the ability to turn an organization's assets such as investments, accounts receivable, and inventory into cash (Lewis, 2017). An asset is therefore, said to be liquid if it can be easily bought or sold. The cash payment commitments can be met either by drawing from a stock of cash holdings, by using current cash inflows, by borrowing cash or by converting liquid assets into cash.

Liquidity management entails intermediation between fund lenders and fund seekers by the financial institutions (Sacco Society Act, 2008). Liquidity management has twin dimensions that of credit creation and liquidity risk management. Negus (2011) defines liquidity management as a term which broadly describes the ability of a business to fulfil financial obligations through cash flow, financing activities and capital management. Managing liquidity can be difficult, as it is influenced by activities generating revenue and expenses, capital and dividend plans, and tax strategies. Past studies show that effective liquidity risk management helps ensure a SACCO's ability to meet cash flow obligations, which are uncertain as they are affected by external events and other agent's behaviour (Song'e, 2015).

Liquidity risk management is of paramount importance because liquidity shortages can have system-wide consequences in a single institution. Liquidity is essential in all SACCOs to meet customer withdrawals, compensate for balance sheet fluctuations, and provide funds for growth (Njeri, 2014). Given the sheer volume and severity of corporate failures in 2008 and 2009, liquidity management has become a regular agenda item at meetings of the board of directors and the audit committee.

Liquidity management involves estimating liquidity requirements and meeting those needs in a cost-effective way (Owino, 2011). An efficient liquidity management allows financial institutions to predict and schedule liquidity demands over different periods, and understand how funding requirements will change under different scenarios, including unfavorable conditions. SACCOs must maintain

adequate levels of capital, liquid assets and future lines of borrowing to meet planned and contingent liquidity requirements (Ogol, 2011). The management of SACCOs 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 SACCO's total assets and its core capital. Karagu and Okibo (2014) documented that liquidity enables firms to survive during bad economic times and is achieved by holding a portfolio of liquid investment.

Liquidity Management and Financial Performance

Financial performance denotes the extent to which financial goals of an organization are accomplished by ensuring that resources available are used in the most efficient and effective way. This 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, 2014). There are two main reasons why companies should be granted measurement of financial performance. 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, 2017).

Matolcsy and Wright (2011) measured firm performance by return on assets which is EBIT / average total assets, return on equity that is net profit / equity, change in market value of equity, change in market value of equity, adjusted for dividends and risk. Yasser et al. (2011) used return on equity and profit margin for the measurement of firm performance. According to Obudho (2014), financial performance is measured in terms of Return on Assets (ROA), which is the amount of net income returned as a percentage of total assets. Financial performance of financial institutions is usually expressed as a function of internal and external factors. The performance-determining financial statement factors include expenditure control, loan composition and credit, deposit composition, market interest rates, earning and operating capacity, adjustments in capital and liquidity management.

Liquidity level indicates an institution's ability to fund increase in assets and meet obligations when they fall due. The regulatory requirements require SACCOs 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, SACCOs 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 SACCOs.

The Sacco Societies Act (Cap 490B) and the Regulations made thereunder provide for key prudential norms and requirements which SACCOs 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 SACCOs 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.

According to Ngui and Jagongo (2017), Capital adequacy, asset quality, earnings and liquidity remains the key criteria for monitoring, evaluating and measuring the financial soundness and stability of the DT-SACCO system. The key parameters of monitoring the trends in the growth performance of DT-Saccos remain the assets, deposits, loans, member share capital, reserves and membership. Sacco Societies Regulatory Authority (2016) revealed that for the period ending December 31, 2016 that only 69 of the 175 deposit-taking Sacco's met and maintained the prescribed minimum institutional capital adequacy (ICA) ratio of eight per cent, meaning more than half the lenders are in breach of the law. Continued non-compliance could lead to the regulator suspending and eventually withdrawing licenses of the defaulting DT-Saccos.

According to the Samburu County Intergrated Development Plan (2013-2017), the County has a total of 64 registered cooperative societies out of which 34 are active while 30 are dormant. The total membership in these societies is 3,213 and a turnover of 186 million Kenya Shillings. The sector plays a key role in marketing of agricultural and livestock products. Cooperative societies so far formed in the county are in the following areas: Marketing of milk, honey and livestock, and Savings and Credit activities. Sacco activities are the most and widely carried out in the county and have benefited many teachers, business community, and civil servants and self-help groups through Development loans for home improvement, farming and business; Enhancement of education in Secondary Schools, Universities and Colleges; Improved health care through emergency loans. Women Enterprise Fund, through Samburu Traders Sacco Society, which is a Government agent that disburses the fund to various

women groups. Salary processing and advances mainly to Civil Servants.

The significance of SACCO's to the Kenyan economy is evidenced by inclusion in the Vision 2030 economic blue print (Kioko, 2014). Given their significance in the financial sector and poverty alleviation, it is important to investigate performance determinants. Savings and credit cooperative societies are found in almost all sectors of the economy. The Ministry of Industrialization and Enterprise Development 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 to achieve the millennium development goals and vision 2030 objectives of increasing financial inclusion.

SACCOs 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 SACCOs as alternative channels of comparatively cheap credit facilities to the Kenyan population. It also shows the potential of SACCOs as a rich alternative source of capital for start-ups or other business expansions ventures, (SASRA Report, 2014). According to Sambasivam and Biruk (2013), the portfolio of deposits and loans in SACCOs amounts to about 34% of national savings and about 24% of outstanding domestic credit (CBK Report, 2008). It is obvious that loan demand by member is very high and inconsistent 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 & Biruk, 2013). SACCOs turn the savings deposits immediately available into loans with longer maturities.

Several studies have been conducted in relation to the performance of Savings and credit cooperative societies. In their research on financial practice as a determinant of SACCO's wealth growth, Clement et al. (2012) found that SACCO's wealth growth relied on financial stewardship, capital structure, and allocation of funds strategy. Karagu and Okibo (2014) did a study on the financial factors influencing performance of savings and credit co-operative organization in Kenya. Keitany (2013) studied the relationship between loan default and the financial performance of SACCOs in Kenya. These studies did not address the issue of capital adequacy, which the current study seeks to address. It is evident that there is hardly any empirical study that has focused on liquidity and performance of the

SACCOs. More so, Samburu County is the 3rd poorest county in the country and is one of the counties that register the poorest financial performance of Saccos year after year. The study therefore fills pertinent gap by focusing on the influence of liquidity on financial performance of SACCOs in Samburu County.

The study's hypothesis was

H_{O1} *Capital adequacy does not have significant effect on the financial performance of SACCOs in Samburu County.*

LITERATURE REVIEW
Liquidity Management

The Basel Committee on Banking Supervision (2008) claims that financial institutions' fundamental role in the maturity transformation of short-term deposits into long-term loans makes banks fundamentally vulnerable to liquidity risk, both institution-specific and market-specific. Then what is liquidity? Nikolaou (2009) describes liquidity as "Risk relates to the probability that a random variable will be realized that is different from the realization desired by the economic agent. Dang (2012) argues that adequate level of liquidity management is positively related to profitability. Managers usually face the tough balancing act of ensuring that funds are available to cater for withdrawals.

Shafana (2015) looked at the link between the liquidity management and financial performance of Sri Lankan financial institutions. The report followed research panel configuration spanning the years 2009 to 2013. The report gathered secondary data from 16 listed commercial banks ' annual financial statements. The liquidity status was operationalized to be calculated using an index of cash position, capacity ratio and total deposits. The data were analyzed using both correlation and regression analysis. Study results showed a positive and significant relationship between the cash position predictor, total deposit and firm performance while the power ratio had a negative and significant impact on firm performance.

Ferrouhi (2014) examined the effect of bank liquidity on financial performance of commercial banks in Morocco. The report followed research panel design; from 2001-2012 secondary data were obtained from the annual financial statements. Data was analysed using regression analysis. Results of the study revealed a positive and significant relationship between liquidity and commercial bank performance.

For the period 2009-2013, Mwangi (2014) examined the liquidity and financial performance of deposit taking microfinance institutions in Kenya. The data were derived from the annual audit reports of the published entity, the Association of Micro Finance Institutions Reports (AMFI) and the annual reports of CBK's banks supervising the five years under review. Financial performance was calculated

using asset return while cash and cash equivalents, separated by total average assets, were measured by liquidity The results revealed a positive relationship between liquidity and financial performance.

In Somalia, Sheikhdon (2016) carried out a study on factors in liquidity management that affect commercial banks' financial performance in Mogadishu, Somalia. The study found a linear relationship about the financial performance of commercial banks in Mogadishu between account receivable management, account payable and cash management. Liquidity management drivers in Mogadishu, Somalia, have been found to have an important and positive influence on the financial performance of commercial banks.

Karani (2014) established that liquidity management was one of the determinants of profitability of commercial banks in Kenya over the years of study. The researcher recommended that managers of financial institutions need to maintain a balance between the level of liquid assets and long-term assets to reinforce a balance between adequate liquidity and sustainable financial performance.

Capital Adequacy

Ensuring capital adequacy is a key component of liquidity management. According to Kosmidou (2009), Capital adequacy refers to the sufficiency of the amount of equity to absorb any shocks that the bank may experience. This therefore, means that the capital structure of SACCOs needs to be regulated at all times. This state of capital adequacy is prerequisite for a firm's financial performance. The debate that has not yet been resolved is on how much capital is enough despite the fact that there is general agreement that statutory capital requirement. Gavila *et al* (2009) argues that, although capital is expensive in terms of expected return, highly capitalized banks face lower cost of bankruptcy, lower need for external funding especially in emerging economies where external borrowing is difficult.

According to Abdessalem and Younes (2013), moral hazard behavior suggests that managers of thinly capitalized banks are less risk averse because the upside risk of low capitalization outweighs the downside risk. In other words, expected return is positively related to the amount of risk assumed by bank management whilst the bank has relatively less capital to lose in the event of default. Low capitalization therefore results to increase in NPLs thus decline in asset quality.

Maghyereh and Awartani (2014) used DEA and truncated regression model to investigate the determinants of efficiency in Gulf cooperation countries (GCC) banking sector. The study revealed that there was compelling evidence that a stringent capital requirement, a strong supervisory review, transparency, and market discipline promote efficiency. The results were argued to support the hypothesis that increased capital requirement will reduce lending, enhance loan quality, and decrease monitoring costs.

Umoru and Osemwegie (2016) examined the relationship between capital adequacy and financial performance of commercial banks in Nigeria. The study adopted panel research design, and collected secondary data from 2007 to 2015 among selected Nigerian commercial banks. Data was analyzed using fixed generalized least squares, results of the study revealed a positive and significant relationship between capital adequacy and firm performance. Moreover, the study revealed capital adequacy on commercial banks was less than 30%, which depicted that the amount of deposit received by commercial banks is rarely enough to meet the risk exposure and meet all liabilities on time.

A Nigerian study by Agbeja, Adelakun and Olufemi (2015) examined the relationship between capital adequacy and bank profitability through linearity approach. The study adopted panel research design, collected five secondary data from selected commercial banks financial statements. Results of the study revealed a positive and significant relationship between capital adequacy and bank profitability. The results revealed that the higher the equity levels the better the prospects for superior performance.

Muthuva (2009) undertook a study focused on the relationship between capital adequacy and cost-income ratio on one side and bank profitability on the other hand. The researcher evaluated Kenyan Commercial banks between 1998 and 2007. The study found out that there exist a negative relationship between the equity capital ratio and profitability. Nonrisk weighted capital adequacy measure (the equity capital ratio) was found to be negatively related to profitability of a bank (as measured by both ROA and ROE) while a positive relationship between risk-adjusted capital adequacy measure (that is tier 1 risk based capital ratio and core capital ratio) and profitability of a bank (as measured by both ROA and ROE). He argued that the differential relationships between bank profitability and capital could be explained by the differential effects of various measure of capital adequacy (due to risk measurement) on the profitability of the bank.

Ngui and Jagongo (2017) conducted a study to establish whether capital adequacy has any effect on the financial performance of deposit taking savings and credit co-operative societies in Kenya. The study also analysed DT-Saccos empirical data from SASRA supervision reports and Saccos audited accounts. The study established that capital adequacy influenced the financial performance of DT-Saccos in Kenya. The study suggested that SASRA revisit the core capital requirements and strengthen the ratios by providing more specific parameters on how to manage the same.

For example, Deposit taking firms will benefit a lot from changing their payout ratios to the dividend. A one percentage reduction of dividend payout would significantly improve the institutional capital of the DT-Sacco.

In Kenyan Saccos Scenario, capital requirements are provided for in law, (Republic of Kenya, 2008), namely; the Sacco Societies Act 2008, Kenya Gazette supplement No. 98. Core capital means the fully paid up members' shares, capital issued, disclosed reserves, retained earnings, grants and donations all of which are not meant to be expended unless on liquidation of the SACCO society, (Republic of Kenya, 2008) and has the following requirements;- (a) Core capital of not less than ten million (Ksh.10, 000,000) (b) Core capital to total assets of not less than ten percent (10%) (c) Institutional Capital to Total Assets of not less than eight percent (8%) (d) Core capital of not less than eight percent (8%) of the total deposits.

Maverick (2018) observed that some companies had very impressive-looking liquidity ratios but precisely because of high liquidity level, presented an unfavorable picture to analysts and investors who then considered other measures of a company's performance such as the profitability ratios of return on capital employed (ROCE) or return on equity (ROE). ROCE is a measure of company performance on how effectively a company makes use of the capital available to produce maximum profits.

Ochingo (2018) studied the effect of firm characteristics on financial performance of savings and credit cooperatives society in Kenya. Specifically, the study sought to determine the effect capital adequacy, asset quality, operational efficiency and liquidity on SACCO financial performance. The study was based on signalling hypotheses, liquidity preference theory and profitability theory. The study adopted descriptive research design and a census of the population for a period of 3 years ranging from 2013 to 2015 was carried out. The study revealed that capital adequacy, asset quality, operational efficiency and liquidity had positive and significant effect on financial performance of SACCO's in Kenya.

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.

Financial Performance

According to DeBusk (2008), the financial performance is often measured using traditional accounting Key Performance Indicators such as Return on Assets (ROA), Operating profit margin, Earnings before Interest and Tax (EBIT), Economic Value Added or Sales growth. The advantage of these measurements is their general availability, since every profit-oriented organization produces these figures for the yearly financial reporting (Smith, 2007). However, balance sheet manipulations and choices of accounting methods may also lead to values that allow only limited comparability of the financial strength of companies. Ratios are best used when compared or benchmarked against another reference, such as an industry standard or "best in class" within the industry. This type of comparison helps to establish financial goals and identify problem areas.

THEORETICAL FRAMEWORK
Liquidity Preference Theory

This study is supported by Keynes' liquidity preference theory developed by Keynes (1936). The theory states that individuals' value money for both the transaction of current business and use it as a store of wealth. Therefore, individuals will sacrifice the ability to earn interest on money that they want to spend in the present, and that they want to have it on hand as a precaution. On the other hand, when interest rates increase, they become willing to hold less money for these purposes in order to secure a profit. Elgar (1999) stated that one needs money because one has expenditure plans to finance, or is speculating on the future path of the interest rate, or, finally, because one is uncertain about what the future may have in store so it is advisable to hold some fraction of one's resources in the form of pure purchasing power.

Efficiency Structure Theory

Frantz Roger developed the Efficiency Structure Theory in 1988. The theory assumes that an organization performance is influenced largely by internal efficiencies. Liquidity management is a strategy that fosters internal efficiencies. The theory is grouped into X efficiency and scale efficiency hypotheses. The efficient-structure theory also includes two hypotheses – the X-efficiency and scale efficiency hypotheses. The X-efficiency hypothesis argues that banks with better management and practices control costs and raise profit, moving the bank closer to the best-practice, lowerbound cost curve. The scale-efficiency hypothesis argues some banks achieve better scale of operation and, thus, lower costs. Lower costs lead to higher profit and faster growth for the scale-efficient banks.

Olweny and Shipho (2011) argued that financial institutions which have consistently

registered positive superior performance are more efficient compared to others. Through increased loan books there are high chances of increasing liquidity exposure of the specific institution. Moreover, all SACCOs ought to strive to adhere to the minimum capital adequacy ratios as such to remain as a going concern. Based on this theory, effective management of capital adequacy, cash management, asset quality and loan repayments is a pathway to financial performance of the Saccos.

RESEARCH METHODOLOGY

The study adopted descriptive research survey design. This design allowed the collection of data using questionnaires. Therefore, study captured the opinions of the SACCO managers on the liquidity management and financial performance. The target population was made up of 34 SACCO managers. The sample size of this study was calculated using a scientific formula by (Kothari, 2004) as outlined below;

$$N = \frac{Z^2 pqN}{e^2(N-1)+Z^2pq}$$

Where:

n = is the sample size for a finite population

N= size of population which is the number of SACCO managers

p = population reliability (or frequency estimated for a sample of size n), where p is 0.5 which is taken for all households and

p + q= 1 e: margin of error considered is 10% for this study. Z α /2: normal reduced variable at 0.05 level of significance z is 1.96

According to the above formula, the sample size for all SACCO managers is:

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5 \times 34}{(0.1)^2 (34 - 1) + [(1.96)^2 \times 0.5 \times 0.5]}$$

= 25.3050217

= 26 SACCO managers

This implies that the size of the sample was equivalent to 26 SACCO managers will constitute the total sample for the study. Purposive sampling was used to identify the 26 SACCO managers given that each Sacco has one overall manager.

Data was collected by use of questionnaires and interview schedules. A pilot study was carried out in Samburu County in three Saccos (10% of the sample size). Content validity was established by use of experts (Kenya Methodist University Supervisors) to determine if the items are a representative sample of the skills and traits that comprise the area to be measured.

Cronbach's alpha was used to test the reliability of the measures in the questionnaire. A score obtained is correlated with scores obtained from other items in the instrument. The Cronbach's Coefficient Alpha is then computed to determine how items correlate. A value above 0.7 was acceptable.

The questionnaire responses were entered into statistical package for social sciences (SPSS) and Cronbach's alpha coefficient computed to assess reliability. The rule was that the closer Cronbach's alpha coefficient is to 1, the higher the internal consistency reliability (Sekaran, 2006), hence reliable for collecting data. The questionnaires recorded a Cronbach's Coefficient Alpha score of 0.733 and thus adapted for the study.

The study collected both quantitative and qualitative data. Quantitative data was computed for descriptive statistics (frequencies, means and percentages) with the aid of SPSS Version 23. Pearson correlation r was used to establish the association between the independent variables and was subjected to a 0.05 test significant value. These techniques show the direction and magnitude of the association between the independent variables and the dependent variable (Mugenda, 2008). Regression analysis was computed to determine the relationship between the independent variables and dependent variable as well as test the research hypothesis (H_{O1} to H_{O4}).

Qualitative data obtained from the open-ended items was analyzed with similar answers grouped together according to the responses from themes for analysis. The main themes and patterns in the responses were identified and analyzed to determine the adequacy, usefulness and consistency of the information. The results were presented in form of tables and charts.

RESULTS AND DISCUSSIONS
Gender of the Respondents

The findings in show that 60% of the respondents were female, while 40% were male. The results that majority of the SACCO managers were in the age bracket of 26 years to 35 years, implying that majority of the managers were youth. Most importantly, the researcher was able to collect views across the age divide. Most of the respondents had served in their current place of work for a period adequate enough to provide sought information for the study.

Capital Adequacy and Financial Performance
Observance the Core Capital

The results Table 1 show that 70% of the respondents strongly agreed that the role of observing the core capital to total asset requirement had an influence on the financial performance, while 30% agreed. This implied that the task of observing the core capital was critical for the financial performance of Saccos in Samburu County. The results are line with those in a study by Muthuva (2009), where it was established that there wasa positive relationship between risk-adjusted capital adequacy measure (that

is tier 1 risk based capital ratio and core capital ratio)   and profitability.

Table 1: Observing the Core Capital

Response	Frequency	Percentage
Agree	6	30
Strongly Agree	14	70
Total	20	100

Observing the Institutional Capital to Total Asset Requirement

The results in Table 2 show that 60% of the respondents strongly agreed that the role of observing the core capital to total asset requirement had an influence the financial performance of their Sacco, 30% agreed, while 10% strongly disagreed. The implication was that in most of the SACCOs, the core capital to total asset requirement was considered influential to the financial performance of the SACCOs. The results suggest that institutional capital was maintained at a level favourable for performance. The results are similar to those in a study by Almazari (2011) who observed there was a link between institutional capital and asset requirement and subsequently financial performance.

Table 2: Observing the Institutional Capital to Total Asset Requirement

Response	Frequency	Percentage
Strongly Disagree	2	10
Agree	6	30
Strongly Agree	12	60
Total	20	100

Observing the minimum core capital requirement of Kshs. 10 million

The results in Table 3 show that 40% of the respondents agreed, 30% were neutral, while 30% disagreed. The implication was that the minimum core capital requirement of Kshs. 10 million set by the government had influence on performance of the SACCOs. This was a view upheld by majority of the SACCO managers in Samburu County. The findings were in agreement with a study by Saidi (2016) in Nairobi County who established that Core capital was used as a measure of capital adequacy within the deposit taking SACCOs.

Table 3: Observing the minimum Core Capital Requirement

Response	Frequency	Percentage
Strongly Disagree	2	10
Disagree	4	20
Neutral	6	30
Agree	3	15
Strongly Agree	5	25
Total	20	100

Core Capital to Total Deposits Requirement

The results in Table 4 show that 85% of the respondents agreed, 10% were neutral, while 5% disagreed that observing the core capital to total deposits requirement had an influence on the financial performance of their Sacco. The implication was that observing the core capital to total deposits requirement had influence on performance of the SACCOs. The result suggests that Core Capital was useful in meeting total deposits requirement. This was a view upheld by majority of the SACCO managers in Samburu County. This is in line with SACCO Societies Regulations (2010) which observed that adequate core capital, as a measure of safety and soundness, should result to good financial performance as it enables smooth running of the SACCO business which eventually promotes public confidence in the institution.

Table 4: Core Capital to Total Deposits Requirement

Response	Frequency	Percentage
Disagree	1	5
Neutral	2	10
Agree	12	60
Strongly Agree	5	25
Total	20	100

Members' Loan Demand

The results in Table 5 show that 55% of the respondents agreed, 25% were neutral, while 20% disagreed that members' loan demand was very high and incompatible compared with the availability of funds. The implication was that majority of the SACCOs did not have enough funds to service all the loans requested by members, and this negatively affected the financial performance of the SACCOs. This was critical since, as Ngumo (2012) established, the amount of mortgage advanced by mortgage firms would lead to a high financial performance (EBIT) as it raises the revenue thereof.

Table 5: Members' Loan Demand

Response	Frequency	Percentage
Strongly Disagree	3	15
Disagree	1	5
Neutral	5	25
Agree	5	25
Strongly Agree	6	30
Total	20	100

Financial Performance of SACCOs

Overall Description of Financial Performance

The results show that 70% of the respondents described the financial performance of their SACCO over the last three years as good while 30% described it as good. This implied that according to a majority of SACCO managers, the financial performance of their respective SACCOs was impressive.

SACCO Membership across Five Years

The results in Table 6 and Figure 4.3 show that there has been a steady increase in Sacco members year after year, since 2012. This implied that the performance in terms of growth in membership was impressive, and this was good for financial performance. More members mean more Sacco share contributions and more people to take loans. The trend in membership is illustrated in Figure 4.3.

Table 6: SACCO Membership across Five Years

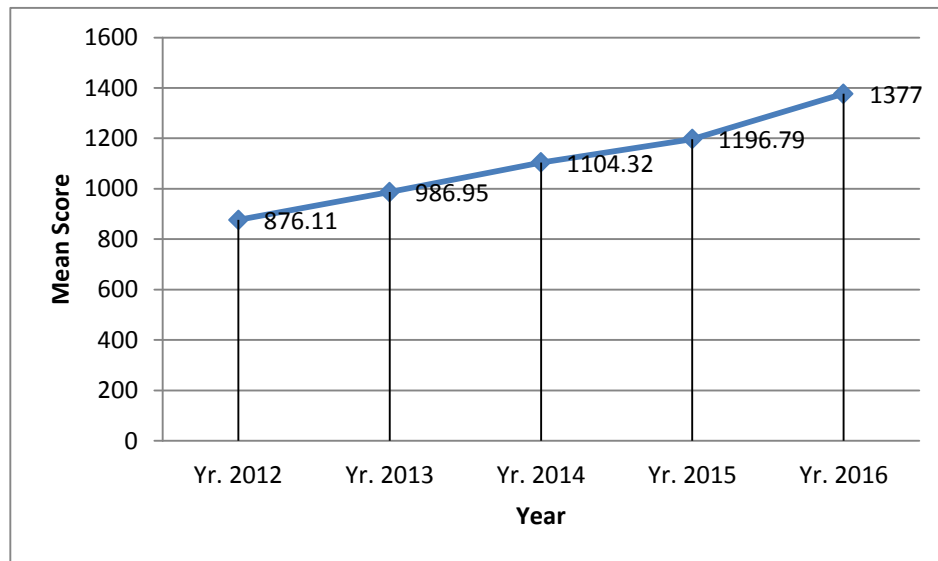| Year	N	Minimum	Maximum	Mean	Std. Deviation
2012	19	50	2787	876.11	811.828
2013	19	65	3108	986.95	894.712
2014	19	60	3262	1104.32	942.614
2015	19	71	3423	1196.79	1005.014
2016	19	72	4670	1377.00	1276.882
Valid N (listwise)	19				

Figure 1: Average Members per SACCO between 2012 and 2016

Descriptive Statistics for Gross Profit of the SACCOs

The results in Table 7 show that since the year 2012 the average gross profits have been increasing steadily. In 2012 the average gross profit per SACCO was 6.67421 million Kenya shillings; in 2015 the figure was 9.39837 while we notice double the value in 2016, which is 12.28105 million Kenya shillings.

Table 7: Descriptive Statistics for Gross Profit of the SACCOs

Year	N	Minimum	Maximum	Mean	Std. Deviation
2012	19	-.800	17.000	6.67421	6.156012
2013	19	.300	17.800	7.33500	6.602661
2014	19	.478	20.150	7.74689	6.733777
2015	19	.515	25.350	9.39837	7.796551
2016	19	.600	26.310	12.28105	8.277014
Valid N (listwise)	19				

Descriptive Statistics for Operating Expenses

The results in Table 8 reveal that just like the gross profits, the average operating expenses have been increasing steadily, since the year 2012. In 2012 the average operating expenses per SACCO was 3.43158 million Kenya shillings; in 2015 the value was at 4.97205 while in 2016, the value had risen to 5.93874 million Kenya shillings. Table 8 and Figure 4.4 is a graphical representation of the gross profit against expenses.

Table 8: Descriptive Statistics for Operating Expenses

Year	N	Minimum	Maximum	Mean	Std. Deviation
2012	19	-3.200	10.150	3.43158	3.719663
2013	19	.175	10.750	4.29316	3.640653
2014	19	.215	13.550	4.57274	4.183755
2015	19	.212	12.700	4.97205	4.049050
2016	19	.315	16.195	5.93874	5.032575
Valid N (listwise)	19				

Table 9: Average Means for Profitability across the Five Years

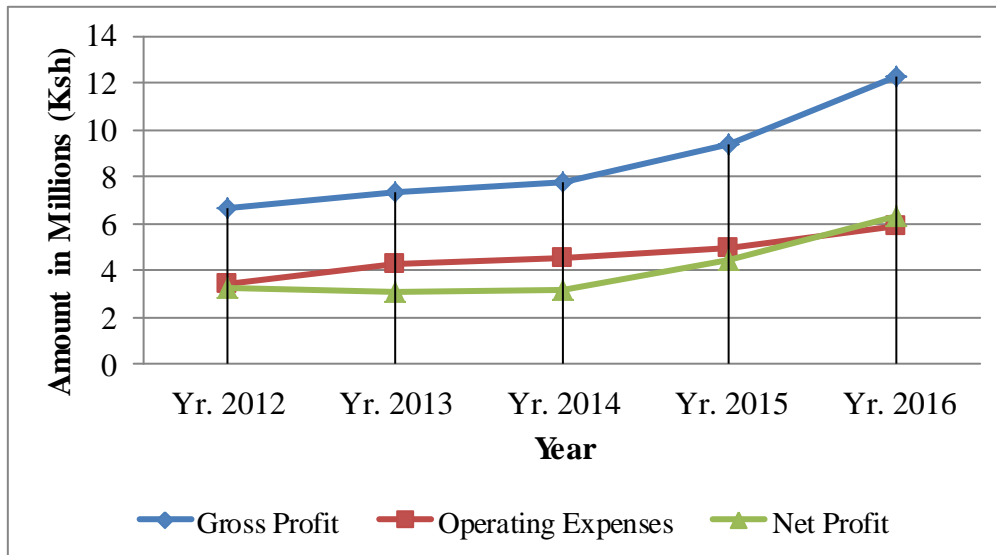|	Gross Profit	Operating Expenses	Net Profit
Yr. 2012	6.67421	3.43158	3.24263
Yr. 2013	7.335	4.29316	3.04184
Yr. 2014	7.74689	4.57274	3.17415
Yr. 2015	9.39837	4.97205	4.42632
Yr. 2016	12.2811	5.93874	6.34231

Figure 4. 1: Descriptive Statistics for Operating Expenses

Number of Loan Products (2012 to 2016)

The results in Figure 4.4 show an increase in loan products in the SACCOs year after year. For instance 70% of the SACCO managers indicated that in 2012, their SACCO had three products. Comparatively, in 2014, 2015 and 2016, all the SACCOs had more than three products. In fact in 2015 and 2016, all the SACCOs had more than four products. As opposed to the earlier periods, at least 15% of the SACCOs had more than eight products. These results are also presented graphically in Figure 4.4 as follows.
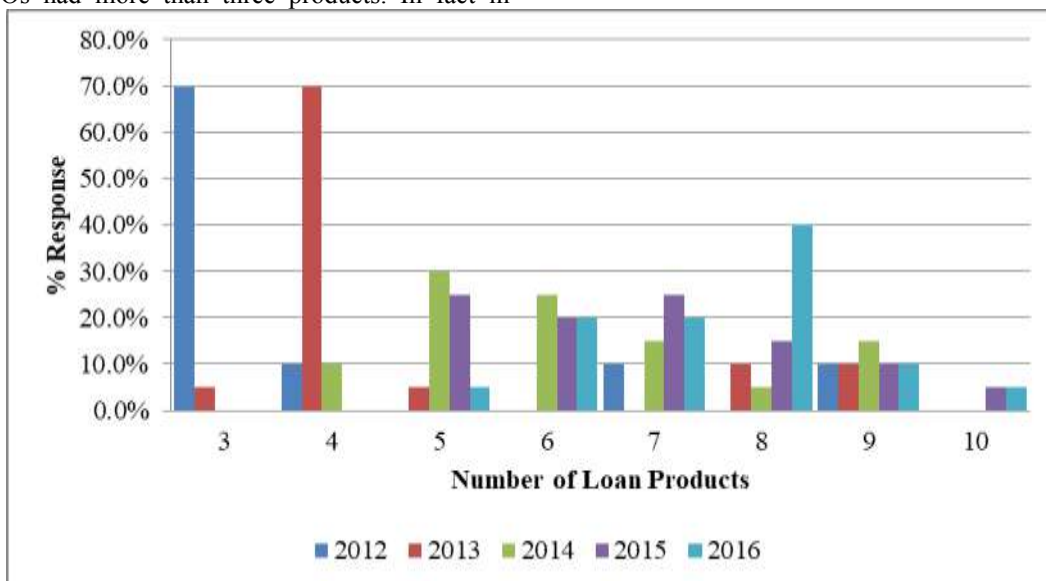

Figure 2: Number of Loan Products (2012 to 2016)

Correlations between Capital Adequacy and Financial Performance

The findings in Table 4.31 show that the Pearson correlation results between capital adequacy and financial performance of the SACCOs were as follows. There was a negative Pearson correlation between capital adequacy and financial performance ($r = -0.122$, $p = 0.607$). This shows that there was no association between capital adequacy and financial performance. Given that, the p value (0.607) was greater than the test significance level ($p > 0.05$), this relationship is not statistically significant. The findings demonstrate that most Saccos may not be having adequate capital to meet all the demands of their members.

Table 4. 1: Correlations between Capital Adequacy and Financial Performance

Liquidity Dimensions		Financial Performance
Capital Adequacy	Pearson Correlation	-.122
	Sig. (2-tailed)	.607
	N	20

Regression Analysis

Multiple regression analysis was done to establish the relationship between the independent and dependent variables and the results are presented in this section. The variables under investigation included influence of capital adequacy, cash management, asset quality and loan repayments on financial performance of SACCOs in Samburu County (dependent variable).

Model Summary

This section presents the multiple regression results with the aim of establishing the relationship between the independent variables and dependent variables.

Table 4. 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.891a	.795	.740	.34224

a. Predictors: (Constant), Loan Repayment, Capital Adequacy, Asset Quality, Cash Management

The R Square value in the Model Summary table shows the amount of variance in the dependent variable that can be explained by the independent variables. The independent variables listed below Table 4.32 accounted for 79.5 percent of the variability in student safety. The R-value (0.891) is the multiple correlation coefficients between all the entered independent variables and the dependent variable. The Adjusted R Square adjusts for a bias as the number of variables increases. The Std. Error of the Estimate is a measure of the accuracy of the prediction.

Analysis of Variances (ANOVA)

In the study, the predictors are significant when Sig. (p value) $p < 0.05$. The findings in Table 4.33 show that p value was 0.000. Since the p values are less than 0.05 (confidence level), we can conclude that the influence of liquidity on the financial performance of SACCOs is significant. As $p < 0.05$ our predictors are significantly better than would be expected by chance. The regression line predicted by studied liquidity dimensions explains a significant amount of the variance in the level of student safety. This is reported as follows: $F (4, 15) = 14.499$; $p < 0.005$, and therefore can conclude that the regression is statistically significant.

Table 4. 3: Analysis of Variances (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.793	4	1.698	14.499	.000b
	Residual	1.757	15	.117		
	Total	8.550	19			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Loan Repayment, Capital Adequacy, Asset Quality, Cash Management

From the findings, it emerges that the most influential determinant of financial performance of SACCOs was Cash Management (β = 0.299, p = 0.013). This was followed by Asset Quality (β = 0.297, p = 0.014). The rest of the factors in the order of their beta value were as follows: Capital Adequacy (Beta = -0.166, p = 0.250), and Loan Repayment (β = -0.322, p = 0.106). The findings thus show that the best two determinants of financial performance of SACCOs were cash management and asset quality.

Beta Coefficients

The Beta Coefficients with respect to regression outputs are presented in Table 4.34.

Table 4. 4: Beta Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.603	1.015		3.550	.003
	Capital Adequacy	-.166	.139	-.146	-1.196	.250
	Cash Management	.299	.106	.453	2.821	.013
	Asset Quality	.297	.107	.411	2.776	.014
	Loan Repayment	-.322	.188	-.225	-1.719	.106

a. Dependent Variable: Financial Performance

Using coefficients outputs for the independent and dependent variables in Table 24 the study hypothesis were tested. The decision rule was to reject the null hypotheses if p values computed from the regression outputs per variable under measure were less than the conventional value of 0.05.

The first hypothesis stated that "*Ho: Capital adequacy does not have significant effect on the financial performance of SACCOs in Samburu County.*" Since the p value associated with capital adequacy was 0.250, the null hypothesis is accepted and concludes that capital adequacy has an insignificant effect on the financial performance of SACCOs in Samburu County.

CONCLUSION

The study concludes capital adequacy did not have a significant influence on the financial performance of SACCOs in Samburu County. This was mainly due to the fact that majority of the SACCOs did not have enough funds to service all the loans requested by members. Capital inadequacy made it difficult for the SACCOs to achieve their financial objectives.

RECOMMENDATIONS

The SACCO management should consider mobilizing additional capital so as to ensure that their SACCO has enough funds to service all the loans requested by members.

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