

**INFLUENCE OF LIQUIDITY RISK MANAGEMENT PRACTICES ON FINANCIAL
PERFORMANCE OF LICENCED DEPOSIT TAKING SACCOS IN NAIROBI KENYA.**

BY

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MASTER OF SCIENCE IN COMMERCE (FINANCE & ACCOUNTING)

KCA UNIVERSITY

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**A RESEARCH DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN
COMMERCE IN THE SCHOOL OF BUSINESS AND PUBLIC MANAGEMENT AT
KCA UNIVERSITY**

NOVEMBER 2018.

DECLARATION

I declare that this Dissertation is my original work and has not been previously published or submitted elsewhere presented for award of a degree. I also declare that this contains no material written and published by other people expect where due reference is made and author duly acknowledged.

Simon N. Kagunda

17/00325

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And have approved it for examination.

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ABSTRACT

This study sought to evaluate influence of liquidity risk management practices on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya. The following objectives guided the study: to investigate the influence of asset quality management practices on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya; to assess the influence of capital adequacy practices on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya; and to evaluate the influence of capital leverage practices on financial performance of licensed deposit taking SACCOs in Nairobi County. The study is based on three theories which are liquidity preference theory, loanable funds theory and theory of pecking order. The study used descriptive research design. The study targeted population 41 licensed deposit taking SACCOs in Nairobi, Kenya. The data collection involved the documentary reviews of information available in financial statements and annual reports. The study relied on secondary data sources. Descriptive and inferential statistics were employed to analyze quantitative data. The study employed panel regression analysis model using Statistical Package for Social Sciences (SPSS) version 24. Data was presented in the form of tables and charts. The study found that asset quality; capital adequacy and capital leverage significantly affect financial performance of SACCOs. The study recommends that SACCOs should work to increase capital adequacy and asset quality ratio. The study also recommends that deposit taking SACCOs should maintain a liquidity ratio that is enough to comply with SASRA regulations and at the same time ensuring an optimum liquidity level to minimize the institution's liquidity risks. Further studies should be conducted to investigate other factors responsible for financial performance of deposit taking SACCOs.

Keywords: *Savings and Credit Cooperatives, Gross Domestic Product, International Monetary Fund*

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DEDICATION

I dedicate this Dissertation to my family for the support they accorded me during the entire period of study.

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ABBREVIATIONS AND ACRONYMS

ANOVA	:	Analysis of Variance
CBK	:	Central Bank of Kenya
ICA	:	International Co-operative Alliance
NPA	:	Non-Performing Assets
NPL	:	Non-Performing loans
ROA	:	Return on Assets
ROE	:	Return on Equity
SACCO	:	Saving and Credit Cooperative
SASRA	:	Sacco Society Regulation Authority
SPSS	:	Statistical Package for Social Sciences

DEFINITION OF OPERATIONAL TERMS

- Asset Quality** : Asset quality may be defined as the total risk that is associated with the various classes of assets that are held by Sacco. The quality of assets is an economic indicator of how the chances of an improved profitability of an entity (Ombaba,2013)
- Capital Adequacy** : Capital adequacy is the level of leverage an entity in the financial sector has when compared to the statutory requirement (Johnson, 2007).
- Capital Leverage** : It is the presence of borrowed funds in financial institution capital structure (Al-Otaibi, 2013).
- Co-operatives** : An independent group of individuals jointed willingly to achieve common desires and aspirations facilitated by a mutually owned and democratically restricted enterprise (Bottelberge & Agevi, 2010, ICA1995).
- Financial Performance** : This is the change in firm value which is attributed to the levels of voluntary disclosure (Wangari, 2014). It is also the annual unit change in shareholders' equity (Salawu et al., 2012; Hamrouni *et al.*, 2015).
- Liquidity** : The ability of an institution to generate sufficient cash or its equivalent in a timely manner at a reasonable price to meet its obligations as they fall due. (Mainelli, 2007).
- Liquidity risk** : The possibility of negative effects on the interest of owners, customers and other stakeholders of the financial institution resulting from the inability to meet current payment obligation in a timely and cost-efficient manner without

		acquiring unsatisfactory misfortunes (Wiley,2014)
Non-performing assets	:	Assets which do not generate any income for the SACCO (Khalid, 2012).
Non-performing loans	:	A loan on which the borrower fails to make interest payments or paying any principal (Ombaba, 2013).
Return on asset	:	Ratio of income to its total assets (Bodla & Richa, 2010)
Return on equity	:	The profit amount earned from the Sacco on book value basis of invested capital (Bodla & Richa, 2010)
Risk	:	This is anything that can hinder realization of specific set goals (Shafiq & Nasr, 2010).
Savings	:	Deposits payable on demand (Sacco Societies regulations, 2010).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Liquid assets in all firms whether they are profit making or not for profit have become limited and liquidity risk has increased. Financial institutions have established intricate and very laborious liquidity management programs to manage their operations due to the fact that performance is positively influenced by liquidity (Adebayo, Adeyanju & Olabode, 2013). Cooperative societies are independent association of people who come together willingly to achieve their mutual economic and social necessities in conjointly possessed and independently managed enterprises that function under the principles of cooperatives (ICA, 2012). The Cooperative Sector in Kenya has been positioned number seven globally and number one in Africa by International Cooperative Alliance in terms of various businesses, membership, capital and impact to the gross domestic product. Currently, Kenya has approximately 15,000 Savings and credit cooperatives.

Liquidity risk is deliberated amongst main risks which have the potential to interfere with financial performance of SACCOs. To manage liquidity positions, banks must assess permanent rankings and being exposed to clients who save in large scale (Navdeep, 2014). Activities that SACCOs are involved in possibly make them prone to monetary losses due to failure of solving fundamental risks promptly. When SACCOs fail to achieve set goals because of shortage of enough liquidity, it contributes to poor credit worthiness. A very high level of liquidity is also not good. Various SACCOs face liquidity challenges due to lack of savings for withdrawal and huge funds used to acquire possessions that are not earning (Graham, 2014).

Global concerns on liquidity risk management have been on the rise. In Europe, the current difference in currency change is adversely affected by failure in foreign exchange liquidity and uncertainty on the currency (Ivo, 2014). Said and Tumin (2012) carried out a research in China and Malaysia, they established a positive correlation between levels of liquidity and performances of financial institutions. Ifeacho (2014) conducted a research on performance of South African Banks and revealed that financial risks affected profits generated by assets. In Ghana, it is mandatory for Credit Unions to keep 10% of deposits and lower the percentage of non-performing liquidity to nearly zero (Kwadwo, 2015).

In Tanzania, sources of external funds are assured for the SACCOs although there are challenges associated with depending on external sources of funds. In Kenya, Olweny and Shipo (2014) assessed factors why banks fail in Kenya and revealed that value of assets and liquidity are main factors contributing to bank failures. Fredrick (2014) studied on impact of liquidity risk practices on performance of financial institutions in Kenya. He established that effective liquidity risk practices affect performance of financial institutions positively. Kotut (2013) revealed that cash costing is very important in planning for scarcity and excess of cash and affects the financial performance of banks.

Jared (2013) in his research established that the rapid growth of SACCOs in Kenya is attributed to provision of loans at a reasonable payment period to their customers. According to FSD (2009), SACCOs should invest on non-productive properties like land, buildings, vehicles, furniture and cash, to 5% of the total assets and hence invest 95% of funds to assets that bring revenue that is higher than operating costs. SACCOs should capitalize their resources more efficiently in expectation of anticipated profits in future. The decisions to invest in general comprise of diversity, achievement, transformation and replacing long-term assets (Maina,

2016). Aburime (2013) asserted that financial performance of a financial institution is dependent on its capability to forecast, prevent and observe risks, perhaps to cater for losses as a result of risks. Therefore, in deciding on resources allocation to assets, a financial organization should consider the extent to which risks affect assets. Khan & Ali (2016) observed that as financial institutions carry out the various functions involving cash and other liquid assets, they become exposed to liquidity risk. This is the risk that a financial institution may fail to meet its financial obligations to depositors when they seek to withdraw funds from the institution. This would affect the reputation of the company which may increase the cost of capital and thereby hurting the financial performance of the institution.

A financial institution with adequate capital has the capability of absorbing losses since capital performs a vital role in decreasing bank closures and losses to depositors when a bank closes (Kamau, 2015). According to Al-Otaibi (2013), a financial institution has higher chances of risks if debt level is high since it's the role of the financial institution to pay the interests resulting to large cash expenditure. This study aims at assessing the influence of liquidity risk management practices on financial performance of deposit taking SACCOs in Nairobi, Kenya.

1.1.1 Liquidity Risk Management

Central Bank of Kenya (2016) defines Liquidity as the ability of any financial institution to fund increase in its assets and at the same time meet its obligations on time without incurring undesirable losses. Financial institutions are normally assessed with consideration to their ability of acquiring cash and loan necessities or their liquidity devoid of higher expenses in the process. Liquidity management is therefore a very crucial aspect that bank managers have to take very carefully. According to Dang (2011), some financial institutions have high liquidity so as to forego expenses of some investment likely to accumulate more profits. Uzhegova (2010) noted

that a financial institution's profitability is closely linked to sufficient level of liquidity. Experience in trade-off between liquidity and return risk are indicated by an increase in a financial institutions profits by the changing of short term securities to long term loans, which also results to a rise in a financial institutions' risk in liquidity. Hence, financial institutions with high liquidity ratios have lower risks and less return.

Liquidity management has two magnitudes; that of credit creation and liquidity risk management. In creation of liquidity, financial institutions will invest idle resources in various establishments. The role of financial institutions in the economy needs not be underscored. Business entities will create credit lines with institutions that will help during hostile working capital. Without these, financial institutions might overstrain its liquidity need by over loaning these business entities. Therefore, it's a binding obligation of financial institution to devote its idle or excess funds in high quality liquid assets as defined in the societies act (Sacco Society Act, 2008) to have a buffer in times of distress.

The business model of financial institution operates on very fragile capital structure which makes it susceptible to financial risks like credit, liquidity and exchange rate risk. Much of the operational cash inflow comes from the depositors who can decide to withdraw their funds without notice. This state of operation requires financial institution to put in place sound management systems. Good liquidity management platform will monitor cash inflow as well as cash outflow. The mismatch of banks' own liquidity and customers' liquidity anticipation leads to financial institution liquidity risk. Therefore, it becomes the responsibility of finance institution to properly manage its liquidity in the state of intricate aspects of balancing assets and liabilities management (Elyse, 2008).

Liquidity risk is determined through various indicators including asset quality, capital adequacy and capital leverage. According to Ombaba (2013) asset quality is the general risks related to many assets owned by an organization. Financial institutions employ this phrase to assess the number of assets at risks and the amount of funds to set aside in case they incur loss.

Capital adequacy is adequacy of equity to engross tremors that a SACCO might face (Kosmidou, 2013). Capital sufficiency which is indicated by capital-asset ratio is a necessity for all financial institutions successful survival which is the role of deposits and capital funds. financial institutions with adequate capital make more profits as compared to those with low capitals. Mwandia (2014) established that capital adequacy eventually influences how better SACCOs can handle shocks in the balance sheets.

Capital adequacy ratio is therefore utilized to measure bank's capability in handling risks like credit and operational risks. The SACCO capital design comprises of organization capital and non-organization capital.

Capital leverage is the degree to which a financial institution utilizes equity and debts to finance its assets (Al-Otaibi, 2013). When debts rise, capital leverage also rises.). A financial institution has higher chances of risks if debt levels are high since it's the role of the financial institution to pay the interests resulting to large cash expenditure (Al-Otaibi, 2013). Low deposit to asset ratio requires the SACCO to seek for funds through borrowing to fill the gap. Higher costs of incurring debts will contribute to reduced earnings and liquidity disaster as a result of spending more cash (Jacob, 2014)

1.1.2 Financial Performance

Performance is the extent to which goals of an organization will be achieved (Yahaya & Lamidi, 2015). Kajirwa (2015) asserted that an organization performance refers to how successfully an organization utilizes its resources from its key duty of conducting business and its consequent production of profit. Performance can also denote the overall well-being of an organization with regards to financial annual reports. Financial performance is a very important goal that organizations particularly profit-making wish to attain (Yahaya & Lamidi, 2015). The financial performance analysis can focus on issue like dividend growth, returns on sales, capital utilization and firm resources (Omondi & Muturi, 2013). Performance is a very important measure of economic success for instance attainment of set goals (Xu & Wanrapee, 2014).

Organization shareholders usually have an interest in the organization performance in terms of profits. Financial performance of an organization has various main characteristics, capabilities of the firm, competitive advantage, and economic intentions of the organization leaders and dependability of the current or future contractors (Dufera, 2010). Financial performance is frequently articulated with reference to growth in sales or stocks (Maghanga & Kalio, 2012). This study adopts returns on Assets as a measure of financial performance in licensed deposit taking SACCOs in Nairobi, Kenya.

1.1.3 Deposit Taking SACCOs in Nairobi County

The Cooperative movement in Kenya can be tracked in 1908 when a cooperative was established in Kericho for the purpose of looking for better market of the tea. At their growing stages, SACCOs operated on planned instead of market oriented environment. In 2004, government changed the laws and inverted its responsibility in supervising and monitoring the functions of SACCO societies to protect the members' savings and ultimately the country economic growth.

In Kenya there are more than 17,000 registered cooperatives and slightly above 150 deposit taking SACCOs licensed by SASRA. Nairobi County has 41 deposit taking SACCOs licensed by SASRA. The movement is approximated to possess more than Ksh500 billion in savings and more than Kenya Shillings 650 million in capital and providing job opportunities to approximately 500,000 people directly. SACCO's contribute approximately 4% to gross domestic profit whereby a number of people get their livelihood from the SACCO movement. Liquidity management of SACCOs in Kenya is controlled by Sacco Society Act; 2008. It calls for Sacco Societies to keep 15% of deposits and short termed debts in liquid assets so as to run their affairs smoothly (SASRA, 2014).

1.2 Statement of the Problem

In present world and Kenya in particular, there has been an increased proliferation of SACCOs which are started with the aim of attaining financial intermediation, acting as a link between the savers and lenders. SASRA (2018) indicates that there are 162 deposit taking SACCOs in Kenya which are registered and licensed by SASRA. However, in Nairobi, there are 41 deposit taking SACCOs which have been licensed by SASRA despite the greater number of SACCOs which exist in the County. This might be due to the tough measures which were enforced by SASRA on deposit taking SACCOs. SASRA calls for all SACCOs to keep a capital adequacy ratio of 10% of the total assets, 8% of all deposits and 8% of the SACCO capital to total assets. A Sacco society shall maintain 15% of its savings deposits and short term liabilities in liquid assets (Sacco Societies Act 2008). The growth of the SACCO industry in Kenya has presented a new challenge of liquidity leading to deregistration of several of them. Eight SACCOs, two of them

in Nairobi have had their licences restricted and one revoked for failure to comply with SASRA regulations on liquidity. (SASRA 2018)

There is research dichotomy on the relationship between liquidity risk management practices and financial performance. While Tumin (2011) and Fredrick (2014) determined that liquidity risk management practices do not affect performance, Osoti (2014) as well as Otieno *et al.* (2015) establishes that liquidity risk management practices affect firm performance.

Tumin (2011) researched on the relationship between liquidity and performance of banks in China and Malaysia. Ifeacho (2014) carried out a research in South Africa on effect of liquidity risk management practices on SACCOs' performance. Fredrick (2014) determined the impact of liquidity risk management on financial performance of financial institutions in Kenya. Osoti (2011) assessed factors affecting growth of SACCOs and demand for loans by members. Kimathi, Mugo, Njeje and Otieno (2015) determined the factors affecting liquidity risk management in microfinance banks in Kenya. Oludhe (2010) in his study on the impact of credit risk management on financial performance of commercial banks in Kenya found that there was strong impact between, Capital Adequacy, Asset Quality, Management, Earnings, Liquidity, and Sensitivity (CAMELS) components on financial performance. Ngaari (2016) researched on the effects of risk management practices on profitability of listed commercial banks in Kenya.

Clearly many types of risks affect financial performance of financial institutions, however, little has been done locally to unveil the influence of liquidity risk management practices on the financial performance. Past researchers have concentrated their studies on banks and SACCOs in general.

This paper sought to improve the research work on influence of liquidity risk management practices in deposit taking SACCOs by using panel data regression. Also by

separating the liquidity risk variables into asset quality, capital adequacy, and capital leverage, the paper sought to evaluate how each liquidity risk component affect financial performance of deposit Taking SACCOs in Nairobi Kenya. Unlike the other past studies, adopting return on assets as a measure of financial performance, this study focused specifically on the influence of liquidity risk management practices on the financial performance with a bias to licenced deposit taking SACCOs in Nairobi, Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

To examine the influence of liquidity risk management practices on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya.

1.3.2 Specific Objectives

- i. To investigate the influence of asset quality management practice on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya.
- ii. To assess the influence of capital adequacy management practice on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya.
- iii. To evaluate the influence of capital leverage management practice on the financial performance of licensed deposit taking SACCOs in Nairobi County, Kenya.

1.4 Research Questions

- i. How does asset quality management practice influence the financial performance of licensed deposit taking SACCOs in Nairobi Kenya?
- ii. In which ways does capital adequacy management practice influence the financial performance of licensed deposit taking SACCOs in Nairobi Kenya?

iii. Does capital leverage management practice influence the financial performance of licensed deposit taking SACCOs in Nairobi Kenya?

1.5 Significance of the Study

1.5.1 Government

The findings of this research helps the government to formulate and implement strong regulatory legal frameworks with regards to liquidity risk management of SACCOs which may contribute to better protection of depositors' fund and shareholders' investments as well as improving the Sacco's financial performance and stability.

1.5.2 Sacco Management

The study is significant to SACCO management with regards to establishment of strong liquidity risk management practices and assist them to remain financially strong in the sector to enable them realize their goals. The findings empower SACCO managers on prevailing liquidity risk management prospects in pursuit of enriching the SACCO movement in Kenya.

1.5.3 Regulators

The study findings benefits the policy makers like SASRA and Vision 2030 secretariat, particularly in strengthening policy considerations in the sector. Improving policies helps in improving the guiding principles on enhancing the performance of SACCOs with an aim of improving their efficiency in liquidity regulation.

1.5.4 Academicians and other Researchers

To Academicians and researchers, the research findings are of immense value as it will contribute to the current literature on influence of liquidity risk management practices on the performance of financial institutions as well as raising insight on new areas which may require inquiries and further studies.

1.6 Scope of the Study

This study was confined to the determination of the influence of liquidity risk management practices on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya. The independent variables were asset quality management practice, capital adequacy practice and capital leverage practice. The dependent variable was financial performance of licensed deposit taking SACCOs in Nairobi County. The research was conducted targeting 41 licensed deposit taking SACCOs within Nairobi County, Kenya which were registered by SASRA as at 31st December 2017. The study was conducted in a period of 15 working days from 6th – 24th August 2018. This gave the researcher ample time to collect as well as carry out validity and reliability tests.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on past literature from other researchers on influence of liquidity risk management practices on performance of financial institutions. It covers theoretical framework, concept of financial performance, influence of asset quality management, capital adequacy and capital leverage, conceptual framework, summary of literature and research gap and operationalization of variables.

2.2 Theoretical Framework

2.2.1 Liquidity Preference Theory

Liquidity preference theory which was developed by Keynes (1936) states the interest rates are influenced by demand and supply of financial steadiness. It is assumed that people will decline interest to be earned on money held presently and rather keep it as a precaution. An increase in interest rates will mean more profit and hence reluctance to hold money presently (Keynes, 1936). Long term securities are alleged to be riskier and hence force investors to demand high premiums. A small change in interest rate contributes to a significant change in speculative demand for money.

The theory emphasizes that people will always hold cash for immediate consumption. Elgar (1999) asserted that people need money because they plan to spend it or they speculate on the future fluctuation of interest rate or because they are not certain of what will happen in the future and therefore it is worthwhile to keep some part of resources in form of pure purchasing power. These reasons are known as transactions, speculative and precautionary reasons to demand money. A premium will be demanded whenever an investment in non-liquid assets for

instance bonds is preferred. This premium increases with increase in the investment period (Auerbach, 1988).

Reilly and Norton (2016) stated that the theory of liquidity preference holds that long term securities have to produce more revenue as compared to short term securities since shareholders have the will to sacrifice some profits to invest in short maturity debts to prevent the high cost instability of long maturity debts. The inference of the theory is that various financial institutions have varying liquidity. According to this theory, extreme liquid bank ought to impose lower interest rates on loans so as to appeal more members and interest rate on deposits ought to be lower so as to dispirit savings or if the charges are similar with other financial institutions then interest rates on savings must stay extremely low. Therefore, interest rate on extremely liquid financial institutions must be relatively higher than less liquid financial institutions. Financial performance of relatively higher liquid financial institutions is higher than low liquid bank (Rochon & Vernengo, 2012).

This theory states that bonds which take short time to mature are better as compared to those that take long time to mature because investors are more likely to opt for short timed bonds as opposed to long timed bonds for they can be liquidated easily without fear of losing the principle. SACCOs should therefore invest in long term securities so as to produce more revenue since high asset quality and high levels of liquidity are indicators of financial performance. A financial institution can acquire enough funds by liquidating its assets fast at fair cost. SACCO's management should therefore prioritize diversification of its activities so as to achieve sustainable performance. This theory informs the importance of asset quality management practices in financial institutions.

2.2.2 The Loanable Funds Theory

Loanable funds theory, propounded by Wicksell (1851) considers that interest rates are influenced by availability of loanable capital and demand for loans. Funds availed for lending is highly determined by the saving habits of depositors and money supply additions through creation of credit by bank during a particular period. The Theory assumes that at equilibrium, banks savers and borrowers should be well compensated. Interest rate spread should be at a point where all parties are comfortable (Froyen, 2014).

The theory assumes that constrained savings limits credit supply that is meant to finance investment opportunities. This theory is influenced by association between the demand and availability of loanable capital. Holding supply constant, rise in demand for loanable funds might contribute to higher interest and the vice versa. In addition, a rise in the supply of loanable capital might contribute to a decrease in the rate but when demand and supply of the loanable capital vary, consequent rate might rely heavily on degree of the demand and supply of the loanable funds (Froyen, 2014). Adequate loanable capital help banks to absorb unanticipated shocks and also signal that financial institution will always carry out its activities efficiently.

Savings are used to lend money to lend loans. Customers need a reward on interest in order for them to save consistently and they will also be discouraged from saving if the interest rates on saving are low and encouraged to save if the rates are high. The high demand for loans indicates the readiness to lend. Those who apply for loans are individuals and organizations. Money borrowed is contrariwise associated to the interest rate. It is therefore important for SACCOS to have adequate loanable funds so as to benefit more from interest rates accrued from loans borrowed by customers. This will consequently increase the annual earnings.

2.2.3 Theory of Pecking order

The theory of Pecking order, propounded in 1984 by Myers and Majluf explains the implications brought about by information asymmetries that exist between outsiders and insiders of the firm. If the internal sources of finance aren't enough to finance the firm's investments, then the firm can turn to debt financing. In cases where debt financing is not useful to the firm anymore (that is when the cost associated with debt financing is more than the benefits of debt financing), the firm can issue equity in form of stocks (Raza, 2014).

Pecking order theory does not recognize that there exists target leverage: where retained earnings comes first in terms of financing preference and equity, that is the stocks comes last in preference as far as financing of new investment is concerned (Bontempi & Golinelli, 2001). The theory of Pecking order is based on assumption that decisions on the use of leverage are purely catalyst by asymmetric information between managers of a firm and investors. The firms assume that investors may view the issue of equity in a negative way. As such, firms prefer to finance its investments using retained earnings as an internal source of finance first, debt as the second option then equity as last option when the first two options are unable to meet the fully required funds for investments (Calabrese, 2011). The theory of pecking order also suggests that most of firms with a high level of financial needs will probably end up with a very great debt ratio since managers do not prefer the issue of new equity in form of stocks (Al-Tally, 2014).

According to this theory, financial leverage has significant effect if the external financing is only considered when the internal funding is not enough. Therefore, for a SACCO with high financial distress the only option is to issue equity, obviously if the surplus will persist, the SACCO would become a net lender. This theory explains the influence of capital leverage practices on the performance of SACCOs. Pecking order theory is considered of importance to

this study since it explains why majority of most best performing financial institutions borrow less. This is because they do not need external funding. Less profitable financial institutions borrow because they lack sufficient internal funds for their capital investment. More importantly, this theory shows the reverse relationship between profitability and financial leverage within the industry.

2.3 Empirical Review

2.3.1 Asset Quality Management Practice and Performance

Ombaba (2013) referred asset quality as the general risks related to many assets owned by an organization. This phrase is normally employed by financial institutions to assess the number of assets at risks and the amount of funds to set aside in case they incur loss. Loans and advances are usual financial institutions' assets that need a stern assessment of asset quality. The researcher further asserted that non-performing assets affects operating success which also affects revenue, liquidity and creditworthiness of financial institutions. Khalid (2013) asserted that an increase in the quality of loan improves the profits on bank loans and reduces the costs of failure.

Aburime (2013) stressed that financial performance of financial institutions is dependent on its capability to forecast, prevent and observe risks, perhaps to cater for losses as a result of risks. Therefore, in deciding on resources allocation to assets, a financial organization should consider the extent to which risks affect assets. Low asset quality and little levels of liquidity are the main reasons for financial institutions downfall. While as these studies concentrated on financial institutions as a whole, the present study is biased to registered SACCOs in Nairobi, Kenya.

Loans are the main SACCOs assets. They are the key factor influencing SACCOs' success and therefore their quality is actually important for measuring performance. The current and future performance of SACCOs is gauged by the asset quality trends plus variations in the economy. Defaulted loans exceeding two months are known as non-performing loans which affects the revenue of a financial institution. SACCOs get their finances from shares, deposits and borrowing from external sources. Enough security should be provided to all assets over losses as deposits security (Rehema, 2013). In addition, Rehema (2013) asserted low asset quality contributes to an increase in defaulted loans resulting to shortage in liquidity. Furthermore, it results to overstated value of assets and income. Due to the fact that customers' deposits are not safeguarded, there is likelihood of liquidity scarcity due to inadequate capital to satisfy the day to day demand to withdraw.

Enough loan provision, application of strong loan assessment processes and successive recovery techniques can be used to manage the loan assets and reestablish the best equilibrium in liquidity. Assets quality is a powerful determining factor of SACCOs' performance since it affects the interest revenue and also decreases the expense of managing non-performing loans according to the law. The SACCOs must preserve cash that can be deducted to make sure that they have the capability to handle losses as a result of defaulted loans. The greater the non-performing loans ratio to the gross/net assets the lesser the asset quality and hence it implies that trade-off between assets quality and performance is anticipated to be adverse (Ombaba, 2013).

Khalid (2012) assessed the correlation between asset quality and performance of Indian banks. The main objective was to examine the effect of asset quality on performance of banks in India. The study was guided by liquidity preference and agency theory. Descriptive statistics were employed for the study whereby 56 commercial banks were sampled. Secondary data was

used for data collection. Banks financial statements were used to collect data. The study findings established that if asset quality reduces, the bank requires other funds to carry out profit making activities, which contributes to poor performance. The researcher concluded that the fact that there are many banks in India, the situation has contributed to reduced revenue, increasing risks, and assets quality weakening as a result of malicious competition which contributed to bank failure. Banks assets quality does not only influence its financial performance but also the whole banking system. The study recommended that the government of India should regulate the banking industry so as to strengthen assets quality since with few banks there will be high competition. The research was carried out in commercial banks and the current study aims at finding out the influence of asset quality on SACCOs.

Tsai (2012) carried out a study on the standards of the banking system in Taiwan. The specific objective was to find out the influence of bank capital on its banking system. The study was guided by trade off and liquidity preference theory. Descriptive statistics were employed for the study. Secondary data was used for data collection. Data was collected from banks annual reports. The study established that if the bank system is delicate, then the bank requires being more attentive to asset quality practices so as to warrant establishment of comprehensive banking system. The study concluded that Banks which had high asset quality performed better than those with low Assets quality. The researcher recommended that banks should invest in long term securities so as to attain high asset quality. This researcher focused of effect of asset quality on banking system whereas the current researcher will focus on influence of asset quality of financial performance of SACCOs.

Ferrouhi (2014) carried out research on bank liquidity and financial performance of commercial banks in Morocco. The main objective was to examine the relationship between

liquidity risk and financial performance of Moroccan banks. The study was guided by liquidity preference theory. Descriptive research design was employed. Only four banks were sampled for the study. Secondary data was collected by use of banks financial statements. The study findings established that the main determinant of banks' performance was the asset quality. The researcher concluded that high asset quality contributes to a decrease in defaulted loans resulting to adequate liquidity. This study aims at replicating this study in Kenya to assess whether there is any resemblance and/ dissimilarity

Nzioka (2012) conducted research on influence of assets quality on the financial performance of commercial banks in Kenya. The main objective of the study was to determine the effect of assets quality on financial performance of the commercial banks in Kenya. Descriptive design was used. The researcher targeted all 44 commercial banks in Kenya. The study employed the use of secondary data. The data was collected from the Central Bank of Kenya, published financial statement of banks and Banking Survey from 2010-2014. These results provide reasonable evidence to the consistent view that, the higher the asset quality levels, the better the financial performance. The researcher concluded that banks which had low asset quality performed better than those with high asset quality.

Cheruiyot (2015) conducted a research on effects of asset quality on financial performance of commercial banks in Kenya. The specific objective was to determine the effect of asset quality on profitability in the Kenyan Commercial Banks sector. The researcher employed the capital asset pricing model theory and signaling theory. The researcher employed descriptive research method. The researcher targeted all 44 commercial banks in Kenya. Secondary data was collected from audited individual banks annual reports, websites and from CBK website and library. The study revealed a positive correlation between asset quality and

commercial banks performance in Kenya. This implies that the lower the NPA to gross/net assets ratio, the higher the asset quality and therefore positive trade-off between asset quality and financial performance. This research concluded that Kenyan commercial banks profitability rises with increase in proper management of expenditures and also that a positive relationship between Kenyan commercial banks profitability and capital adequacy exists. The study recommended the adoption of policies and strategies that will ensure proper management of expenditures so as to ensure high profitability. This research aims at assessing the influence of assets quality on the financial performance of SACCOs since Cheruiyot's study was inclined to commercial banks.

2.3.2 Capital Adequacy Management Practice and Performance

Capital adequacy is adequacy of equity to engross tremors that a SACCO might face (Kosmidou, 2013). Capital performs a crucial role in promoting performance. Clients have a concern with the adequacy of financial institutions' capital to ensure that their deposits are safe. Capital sufficiency which is indicated by capital-asset ratio is a necessity for all financial institutions successful survival which is the role of deposits and capital funds. A financial institution with adequate capital have the capability of absorbing losses since capital performs a vital role in decreasing bank closures and losses to depositors when a bank closes (Kamau, 2015). Ejoh and Iwara (2014) argued that high capital contributes to lower profits because financial institutions with high capital ratio are risks-hostile, they overlook possible investment chances and in return shareholders' plea for a reduced return on capital in exchange for fewer risks. Gavila and Barbra (2012) argued that even though capital is costly with regards to anticipated returns, financial institutions with high capital experience low cost of running bankrupt, less necessity for seeking for funds from outside particularly in developing economies where borrowing externally is hard. Therefore, financial institutions with adequate capital make more profits as compared to those

with low capitals. Mwandia (2014) established that capital adequacy eventually influences how better SACCOs can handle shocks in the balance sheets.

Capital adequacy ratio is therefore utilized to measure bank's capability in handling risks like credit and operational risks. The SACCO capital design comprises of organization capital and non-organization capital. Organization capital is the customers permanent and shares that cannot be withdrawn, legal reserves, general reserves, sustained revenue or accrued losses, present annual returns and borrowed funds. The non-organization capital is classified as adjusted funds, temporary funds and un-shared funds (Rehema, 2013). Adequate capital develops liquidity for a financial institution since customers are more susceptible to instability. In addition, higher capital minimizes the likeability of stress (Diamond, 2014). The major objective of adequate capital is to safeguard members' deposits. In Kenya, the recommended least basic capital is Ksh. 10 million (SACCO societies Act, 2013). Sustaining a specified level of capital enhances customer self-assurance and guarantees protection of customers' deposits. Capital inadequacy contributes to financial unsteadiness. Adequate capital supports development of funds and offers security over bankruptcy. Achieving capital necessities is a crucial factor in assessing capital sufficiency.

Shahchera (2012) studied on the correlation between capital adequacy and financial performance of banks in Malaysia. The main objective was to assess the effect of capital adequacy on banks performance. The research adopted the loanable funds and agency theory. Descriptive research design was employed. All the 35 banks in the country were targeted. Secondary data was used to collect data which was gathered from banks annual reports. The results indicated that capital adequacy did not have significant relationship with performance. This implies that the capital adequacy of banks in Malaysia did not affect their performance. The

study concluded that stricter least capital adequacy ratios are linked with more income production. The researcher recommended that banks should less funding expenses so as to experience higher interest on assets. The current researcher aims at finding out whether there exists a relationship between capital adequacy and financial performance of registered SACCOs in Nairobi, Kenya.

Alzorqan (2014) carried out a study on bank liquidity risk and performance on the banking system in Jordan. The main objective was to assess influence of ideal bank liquidity on profitable financial operations. The study was based on agency theory. Descriptive research design was employed. The researcher sampled only 2 commercial banks in Jordan. Secondary data was used to collect data by use of banks annual reports. The study findings established that there is a significant influence of capital adequacy on banks performance. The researcher concluded that capital adequacy is very essential in helping bank to stand shock and probable closure. The sample selected was very small and this current study aims at conducting a similar study with a wider sample of 41 SACCOs.

Diamond (2014) studied on factors that affect the growth of SACCOs in Nigeria. The specific was to assess the factors influencing growth of SACCOs in the country. The study adopted the capital asset pricing theory and theory of pecking order. Descriptive research design was employed. The researcher targeted all the 90 registered SACCOs in the country. Secondary data was used to collect data by use of banks financial reports. Findings established that SACCOs with adequate capital realized more profits as compared to those with inadequate capital. The study concluded that higher capital minimizes the likelihood of financial strain as well as liquidity. The researcher gave a recommendation to government to implement policies which will inspire banks to enhance their assets and capital to promote performance of the entire

banking sector. This similar study will be conducted by the current researcher with an aim of finding out whether capital adequacy affects financial performance of deposit taking SACCOs in Nairobi, Kenya.

Kamau (2014) carried out a research on influence of capital adequacy on banks' profitability in Kenya. The study was anchored to the Modigliani and Miller theory propositions I and II. The researcher employed descriptive research design. The study targeted all the 44 commercial banks in Kenya. Secondary data was collected from published accounts of commercial banks. Findings established that holding adequate capital is not enough and banks must be ready to point out various risks which might affect their capital. The study concluded that bank capitalization is an economic change with an aim of restoring consistency; steadiness and profitability in the banking sector and build sureness with its customers. The researcher recommended that banks ought to strengthen their capital base to overcome risks which might shake their capital adequacy to remain attractive to the shareholders. The study by Kamau only looked at capital adequacy of banks but the current researcher will close this gap by assessing whether capital adequacy affect SACCO's financial performance.

Suka (2011) conducted a study on influence of capital adequacy on financial performance of financial institutions quoted at the Nairobi stock exchange. The specific objective was to assess the effect of capital adequacy ratio on the financial performance of commercial banks. In the study, the researcher adopted the agency theory, trade off theory and the pecking order theory. Descriptive research design was employed. The target population was nine banks listed at Nairobi stock exchange. Secondary data was utilized as the source of data for the study. The data was acquired from the Kenya capital Market Authority Library, Internet and website of the quoted commercial banks quoted at the national stock exchange. The study established that

capital adequacy eventually shows the capability of banks to manage shocks in the balance sheets. He concluded that capital adequacy has a positive effect on banks' performance, unlike assets size which has no effect. The researcher suggested that there should be a wide capital base in the banks to strengthen confidence of depositors. This current study aims at filling a research gap on influence of capital adequacy on financial performance of deposit taking SACCOs in Nairobi.

2.3.3 Capital Leverage Management Practice and Performance

Capital leverage is the degree to which a financial institution utilizes equity and debts to finance its assets (Al-Otaibi, 2013). When debts rise, capital leverage also rises. Managers have a preference for equity financing as compared to debt as it is less risky (Matt, 2012). Leverage gives room for higher profits to investors although chances of losses are high when the venture loses its value, the loan principal and accumulated interest required to be paid (Andy *et. al.*, 2012). Subsequently, the choice of capital leverage is basic as financial institutions can use a particular combination of equity and debt in financing its investments or the daily operations (Gill & Mathur, 2013).

Financial institutions use capital leverage with an aim of gaining greater profits of fixed charges funds than their expenses (Enekwe, Agu & Eziedo, 2014). A financial institution has higher chances of risks if debt levels are high since it's the role of the financial institution to pay the interests resulting to large cash expenditure (Al-Otaibi, 2013). SASRA necessitates every SACCO to keep a 25 percent ratio on debts to all assets (SACCO societies Act, 2013). The SACCO industry has continued to grow in Kenya which has resulted to more demand for money from members. Deposit to asset ratio is employed to assess the relationship between deposits and other items in the balance sheet. The greater the ratio the lesser the SACCO capability to fund

itself from deposits. Low deposit to asset ratio requires the SACCO to seek for funds through borrowing to fill the gap. Higher costs of incurring debts will contribute to reduced earnings and liquidity disaster as a result of spending more cash (Jacob, 2014).

Thaddeus and Chigbu (2012) conducted a research on influence of capital leverage on bank profitability in Australia. The main objective was to examine the influence of capital leverage on bank profitability in Australia. The study adopted pecking order and trade off theory. Descriptive research method employed. The researcher target population was 30 commercial banks in Australia. Secondary data was used to collect data from banks financial reports. Regression was used to assess the correlation between capital leverage and performance. The findings showed varying results. Whereas some banks reported significant relationship, others showed negative relationship between capital leverage and performance. The researchers made a conclusion that higher costs of incurring debts contribute to reduced earnings and liquidity disaster. The study recommended that banks should try to maintain high deposit to asset ratio in order to avoid seeking for funds by borrowing. The current researcher aims at carrying out a similar study with a focus on financial performance of registered SACCOs in Nairobi, Kenya.

Al-Otaibi (2013) assessed the influence of capital structure on profitability of financial institutions in Saudi Arabia. The main objective was to establish whether capital structure influences performance of banks. The researcher adopted agency theory and trade off theory. Multiple regressions were employed to describe the correlation between capital leverage, price of funds borrowed interest and firm profitability. Descriptive research method was employed. The researcher targeted all 25 commercial banks in the country. This study employed secondary data that was obtained from the annual audited financial statements. Results showed a significant correlation between capital leverage, price of equity funds borrowed interest and firm

performance. He concluded that excellent debt financing is very important in making sure that financial organizations achieve enhanced financial performance. The study recommended that organizations must emphasize on minimizing some operating costs by opting for fairly less expensive sources of external funds in order to advance highly on performance. This current study will assess whether capital leverage have an influence on performance of SACCOs in Nairobi, Kenya.

Enekwe, Agu and Eziedo (2014) assessed the effect of financial leverage on financial performance of Nigeria pharmaceutical firms. The main objective was to determine the effect of financial leverage on financial performance of Nigeria pharmaceutical firms. The researcher adopted the pecking order and trade off theory. Only three firms were sampled for the study. The study used secondary data to collect data from financial statements. The findings established that debt ratio and debt-equity ratio had a negative relationship with profitability. He concluded that high debt levels might lead to instability of financial institutions. The current researcher will carry out a similar study based on a larger sample to assess whether the results are similar/different with respect to SACCOs in Nairobi County, Kenya.

Ismail (2016) studied on influence of financial leverage on profitability of non-financial institutions at Nairobi securities exchange. The specific objective was to evaluate the effect of financial leverage on financial performance of non-financial firms listed at Nairobi Securities Exchange. The researcher adopted the tradeoff theory and pecking order theory. The researcher targeted all non-financial firms quoted at the Nairobi securities exchange. The study used secondary data to collected data from annual reports. The findings revealed that financial leverage positively correlates with profitability (ROA). The researcher concluded that financial leverage has an adverse impact on financial performance. The researcher recommended that

managers of non-financial firms quoted at the NSE should employ minimal debt level which will not affect the performance of the firm. The current researcher will carry out a similar study on registered SACCOs in Nairobi County, Kenya.

Ochieng (2014) conducted a study on influence of financial leverage on profitability of SACCOs in Kenya. The objectives were to determine the extent to which performance of commercial banks in Kenya is related to liquidity risk as well as investigating the relationship between management effectiveness and capital leverage as control variables on commercial banks' ROA. The study adopted trade-off and pecking order theory. Descriptive research design was adopted. The researcher targeted population was 6,151 registered SACCOs in Kenya. Secondary data was gathered from the published annual financial reports. The findings established a positive correlation between financial leverage and profitability of SACCOs in Kenya. The study concluded that deposits taking SACCOs have high debt-equity and debt ratios and indication of high leverage. The researcher recommended that SACCOs must not rely much on borrowing since they increase financial risk and the risk of bankruptcy. The current researcher aims at finding out whether financial leverage influence performance of registered SACCOs in Nairobi, Kenya only.

2.4 Summary of Literature

Empirical literature has revealed that liquidity risk management practices influence financial performance. Khalid (2012) established that a reduction in bank's asset quality, forces a bank to borrow in order to carry out profit making activities, which contributes to poor performance. He also found out that presence of many banks in India have contributed to reduced revenue, increasing risks and assets quality weakening as a result of malicious competition which contributed to bank failure.

Gavila and Barbara (2012), argued that financial institutions with high capital experience low cost of running bankrupt, less necessity for seeking for funds from outside particularly in developing economies where borrowing externally is hard hence financial institutions with adequate capital makes more profits as compared to those with low capitals. Maghanga and Kalio (2012) established that capital leverage has a great influence on performance. The study also established that excellent debt financing is very important in making sure that financial organizations achieve enhanced financial performance. These liquidity risks management practices influence performance of various organizations but the extent to which they influence performance of licensed deposit taking SACCOs in Nairobi Kenya is yet to be established. The researcher aims at filling this gap.

2.5 Research Gap

The literature review shows the existence of the significant relationship between asset quality, capital adequacy, capital leverage and performance of financial institutions while some empirical studies have indicated a negative relationship. Conversely, the findings from various researches have not sufficiently concluded the effects of diverse determinants of financial institutions performance. Locally, there has been little research carried out on effects of asset quality, capital adequacy and capital leverage on financial performance of licensed deposit taking SACCOS; this study hence aims at filling the gap by examining this.

2.6 Conceptual Framework

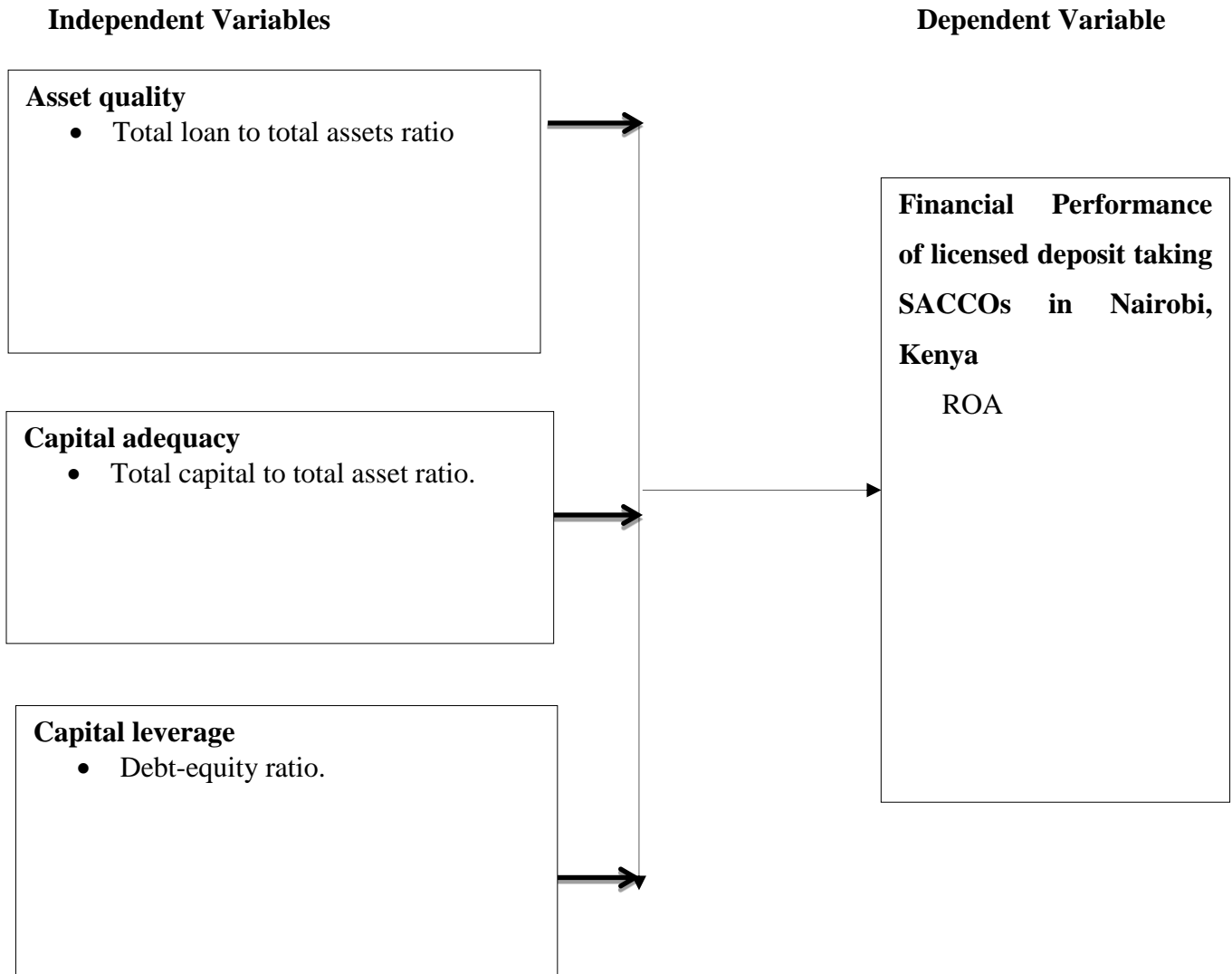


Figure 2. 1: Conceptual Framework

Source: Author (2018)

2.6.1 Description of variables

Asset quality is general risks related to many properties owned by an organization. Banks' assets are critical variables which determine profitability, they include; fixed assets, credit portfolio and other investments like real estates among other current assets. Usually, a bank loan generates more share income among the entire bank's assets. Therefore, financial institutions realize more

profits from loans than other assets. Loans and advances are usual financial institutions' assets that need a stern assessment of asset quality (Ombaba, 2013).

Non-performing assets affects operating success which also affects revenue, liquidity and creditworthiness of financial institutions. An increase in the quality of loan improves the profits on bank loans and reduces the costs of failure. Financial performance of financial institutions is reliant on its capability to forecast, prevent and observe risks, perhaps to cater for losses as a result of risks. Low asset quality and little levels of liquidity are the main reasons for financial institutions downfall (Khalid, 2012).

Capital adequacy is the percentage ratio of the capital to assets of a financial institution which indicates stability and strength. A financial institution with adequate capital have the capability of absorbing losses since capital performs a vital role in decreasing bank closures and losses to depositors when a bank closes. High capital contributes to lower profits because financial institutions with high capital ratio are exposed to risks (Kosmidou, 2013).

Although capital is costly, financial institutions with high capital experience low cost of running bankrupt thereby creating a low need for seeking for funds from outside particularly in developing economies where borrowing externally is hard. Therefore, financial institutions with adequate capital make more profits as compared to those with low capitals (Kamau, 2015).

Capital leverage is about how entities employ debt and equity as far as financing their assets is concerned. When debts rise, capital leverage also rises. Managers prefer equity financing as compared to debt as it is less risky. Leverage gives room for higher profits to investors although chances of losses are high when the venture loses its value, the loan principal and accumulated interest required to be paid. Subsequently, the choice of capital leverage is

basic as financial institutions can use a particular combination of equity and debt in financing its investments or the daily operations (Al-Otaibi, 2013).

Financial institutions use capital leverage with an aim of gaining greater profits of fixed charges funds than their expenses. A financial institution has higher chances of risks if debt levels are high since it's the role of the financial institution to pay the interests resulting to large cash expenditure (Andy *et al.*, 2012).

Oludhe (2010) in his study on the impact of credit risk management on financial performance of commercial banks in Kenya found that there was strong impact between, Capital Adequacy, Asset Quality Management, and capital leverage components on financial performance.

2.6.2 Operationalization of Variables

Table 2. 1: Operationalization of Variables

Abbreviation	Variable	Measurement
Y	Financial performance	Ratio of income to Total assets ratio (ROA)
X ₁	Asset quality	Ratio of total loan to total assets
X ₂	Capital adequacy	Ratio of total capital to total assets.
X ₃	Capital leverage	Ratio of total debt to equity

Source: Author (2018)

SACCO financial performance was measured by return on assets, assets quality by total assets, capital adequacy by the ratio of capital to assets and capital leverage was measured by the ratio of total debt to total assets.

The following formulas were used to measure the study variables:

- i) Financial Performance

Financial Performance = Net income /Total assets

- ii) Asset Quality

Asset quality = Total loan/Total assets

- iii) Capital Adequacy

Capital adequacy = Total capital/Total assets

- iv) Capital Leverage

Capital leverage = Total debt/Total equity

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the research methodology is presented. This section covers the research design, target population, data collection procedures and data analysis techniques.

3.2 Research Design

A research design is a plan of research in order to answer research questions. The study employed descriptive research design (Kothari 2008). Descriptive research designs are normally structured and precisely intended to gauge the features outlined in a research question. Mugenda and Mugenda (2008) asserted that descriptive statistics allow significant explanation of measurements by use of minimal statistics. Descriptive research aims to show a precise summary of individuals, occurrences or conditions. Descriptive design is chosen since it focuses on data instead of theory.

3.3 Target Population

According to Mugenda (2003), a population is a group of individuals, events, or objects having common observable characteristics. Slim and Wright (2000) defines population as the collection of situations in which the researcher is interested in and to which he or she desires to make generalization. The target population was 41 deposit taking SACCOs in Nairobi County which were licensed by SASRA as at 31st December 2017 as listed in Appendix 1 (SASRA, 2018). The reason behind selection of licensed deposit taking SACCOs is the fact that they operate under regulation of SASRA and therefore subscribe to the same policies and operating procedures. Nairobi County was selected as the appropriate area of study essentially because majority of deposit taking SACCOs are located here, therefore, the outcome of the study can adequately be generalized.

3.4 Sampling and Sampling Procedure

A sample is a miniature proportion of target population selected for analysis. Any declaration made regarding the sample ought to be factual about the populace (Orodho, 2012). According to Mugenda and Mugenda (2008), when the target population is small, the whole population was

sampled thus the researcher sampled all the licensed deposit taking SACCOs in Nairobi County. This study therefore used census method.

3.5 Research Instruments

Research instruments are tools that help the researcher to obtain data for the study work whose results are reliable and valid (Wilkinson, 2000). The researcher used secondary data collection instruments. The data collection involved the documentary reviews of information available in financial statements and annual reports. SASRA and Sacco's websites were the sources of secondary data. Total investment to total assets ratio was used to measure financial performance. The study used a panel data of 2013 to 2017.

3.6 Data Collection Procedure

After approval of proposal, the researcher used secondary data such as the SACCOs' published regulatory filings, annual reports and published regulatory reports over a five year reporting period from 2013 to 2017. Published records are usually audited by registered auditors and therefore easily authenticated. This period of time is considered suitable for this study since it covered the period after the SASRA regulations were implemented whereby SACCOs are supposed to have structured their operations.

3.7 Data Processing and Analysis

Data analysis entails categorizing, organization and analysing raw data (Kothari, 2004). Descriptive and inferential statistics were employed to analyse quantitative data using Statistical Package for Social Sciences (SPSS) version 24. The model significance was tested using the analysis of the variance (ANOVA). The coefficient of determination shows how the model explains the deviations in the independent variable. The findings are statistically significant in the 0.05 level, which implies that the significant value needs to be less than 0.05. The study

variables were quantitatively described by use of descriptive statistics: percentage, frequency, means, maximum, minimum and standard deviation. Before the regression analysis, various diagnostic tests were undertaken as presented below.

A panel data regression was used to analyse the relationship between the independent and the dependent variable. Tests were performed to choose the most appropriate model for analysis between pooled OLS and random effect models.

The pooled OLS regression analysis assumes that the data collected for the entities does not depict unique attributes and also that there are no universal effects across time for the panel data. This model is effective when there are no major differences between the entities and when there are no universal effects across time. However, when there are some unique attributes for the entities, this model would produce inefficient estimators (Hsiao et al., 2009).

The Pooled OLS model is of the form:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it} \dots\dots\dots (1)$$

Fixed effect model on the other hand has unique attributes of individuals that do not vary across time (equation 2), or time related fixed effects that do not vary over individuals (equation 3) or both individual and time effects (equation 4) that may be analysed statistically but not accurately predicted. These attributes are predicted by μ_i for individuals and λ_t for time in regression equations.

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \mu_i + \epsilon_{it} \dots\dots\dots (2)$$

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \lambda_t + \epsilon_{it} \dots\dots\dots (3)$$

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \mu_i + \lambda_t + \epsilon_{it} \dots\dots\dots (4)$$

The random effects model on the other hand assumes that there are some unique attributes that are constant over time for the different entities. These unique attributes of the

different entities are constant over time and are not related with the independent variables applied in the regression model. This model is hence useful when inferences are required for the whole population not just the sample under consideration.

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \mu_i + \epsilon_{it} \dots\dots\dots (5)$$

Or,

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \omega_{it} \dots\dots\dots (6)$$

Where:

Y is the dependent variable (financial performance)

β_0 is the regression constant

$\beta_1, \beta_2, \beta_3$ and are the coefficients of independent variables

X1 is asset quality

X2 is capital adequacy

X3 is capital leverage

μ_i = observable individual dummy

ϵ_i = decomposed individual error term

ϵ = random error term

$\omega_{it} = \epsilon_i + \epsilon_{it}$, unobserved dummy

i = individual index, 1, 2, 3n

Identification of the Appropriate Model

A hausmann test was conducted which enabled selection of the best model to use for the data. Various diagnostic tests were executed on the data. Tests for normality are conducted in

order to compare the sample distribution shape to the normal curve shape. When the shape of the sample is normal, the population is normally distributed.

Multicollinearity was tested using VIF values. Variance Inflation Factors (VIF) explains how much amount multicollinearity (correlation between predictors) exists in a regression analysis. Correlation coefficient (r) ranging from 0.10 to 0.29 illustrates weak correlation, 0.30 to 0.49 is considered medium and whereas 0.50 to 1.0 is considered strong (Wong & Hiew, 2005). However, according to Field (2005), a coefficient of correlation value beyond 0.8 illustrates multicollinearity.

The study also conducted heteroscedasticity test. This test measures the dispersion between dependent and independent variables where highly dispersions meant there was a problem of heteroscedasticity. The presence of heteroscedasticity means that errors are biased and the true value of variances are underestimated consequently wrongfully invalidating the test. A p-value > 0.05 show no presence of heteroscedasticity while a p-value < 0.05 show presence of heteroscedasticity.

Autocorrelation test was conducted to determine the relationship between variables and itself over time intervals. It measures the relationship over time lags of variables where presence of autocorrelation will indicate errors are not random and can be corrected. The researcher used Wooldridge test to test for autocorrelation. A p-value > 0.05 indicates no presence of first-order autocorrelation in the model (i.e. errors are random) while a p-value < 0.05 indicates presence of autocorrelation (i.e. errors are not random).

Findings are presented in form of tables. The description of the study variables was quantitatively described using descriptive statistics: percentages, frequency, mean maximum, minimum and standard deviation.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter presents results from analysis of field data. Data was analysed using descriptive and inferential statistical methods and presented using tables. An attempt has been made to explain the outcomes based on the objectives of the study. The study findings were presented as per the objectives of the study.

4.2. Descriptive statistics

Table 4.1 presents the description of the variables used in this study; Return on Asset (ROA), Capital Leverage, Asset quality and Capital adequacy. The results showed that ROA had a mean of 0.1289 with a minimum of 0.030, a maximum of 0.2 and standard deviation of 0.03003. On average the findings indicate that ROA among deposit taking Saccos in Nairobi, Kenya was 0.1289 between 2013 and 2017. This implies that the institutions are optimally utilizing their assets to generate profit.

Capital adequacy had a mean of .2504, minimum of .09, maximum of 0.51 and standard deviation of .07663. The findings indicate the deposit taking Saccos in Nairobi, Kenya have adequate capital to protect their depositors and ensure efficiency and stability of the SACCOs. Asset quality had a mean of 0.2819, minimum of .01, maximum of 1.69 and standard deviation of .35861. These findings show that some deposit taking Saccos in Nairobi, Kenya are able to hold their financial performance as a result of varied liquidity. Capital leverage had a mean of 0.2819, minimum of .09, maximum of 1.69 and standard deviation of .38437. These findings show that some deposit taking Saccos in Nairobi, Kenya are able to hold debts low as well as increasing equity.

Table 4. 1: Descriptive statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Return on Asset(ROA)	197	.03	.20	.1289	.03003
Capital Leverage	196	.09	1.69	.2908	.38437
Asset quality	175	.01	1.69	.2819	.35861
Capital adequacy	196	.09	.51	.2504	.07663
Valid N (list wise)	175				

Source: Author (2018)

4.3. Study Variables

4.3.1 Asset quality management practice and Financial Performance

Ombaba (2013) referred asset quality as the general risks related to many assets owned by an organization. According to Ombaba, non-performing assets affects operating success which also affects revenue, liquidity and creditworthiness of financial institutions. Khalid (2013) also argues that an increase in the quality of loan improves the profits on bank loans and reduces the costs of failure. Financial performance of financial institutions is dependent on its capability to forecast, prevent and observe risks, perhaps to cater for losses as a result of risks (Aburime, 2013). Therefore, in deciding on resources allocation to assets, a financial organization should consider the extent to which risks affect assets. Low asset quality and little levels of liquidity are the main reasons for financial institutions downfall.

In addition, Rehema (2013) argues that low asset quality contributes to an increase in defaulted loans resulting to shortage in liquidity. Furthermore, it results to overstated value of assets and income. Due to the fact that customers' deposits are not safeguarded, there is likelihood of liquidity scarcity due to inadequate capital to satisfy the day to day demand to withdraw.

Table 4.2 presents relationship between asset quality and financial performance of deposit taking SACCOs in Nairobi County. The table summarizes the findings. It was found that asset quality had a significant relationship with financial performance of licensed deposit taking SACCOs in Nairobi, Kenya at $\alpha=0.01$. This implied that for every unit increase in asset quality management, financial performance would increase by 0.314.

The study also determined the extent to which asset quality management contributes to SACCOs' financial performance by computing the coefficient of determination (r^2). The extent to which asset quality management influences contributes to SACCOs' financial performance is equal to the Square of Pearson correlation coefficient, that is, $r^2 = (0.314)^2 = 0.098596$. Enough loan provision, application of strong loan assessment processes and successive recovery techniques can be used to manage the loan assets and re-establish the best equilibrium in liquidity. Assets quality is a powerful determining factor of SACCOs' financial performance since it affects the interest revenue and also decreases the expense of managing non-performing loans according to the law.

The finding of Khalid (2012) study was consistent with the findings of this study; Khalid found asset quality increases the performance of banks in India. Another study by Tsai (2012) which was in favour of our study found that Banks which had high asset quality performed better than those with low Assets quality.

Table 4. 2: Asset Quality Management Practice and Financial Performance

		Performance
Asset quality	Pearson Correlation	0.314**
	Sig. (2-tailed)	0.000
	N	175

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Author (2018)

4.3.2. Capital Adequacy Management Practice and Financial Performance

Capital adequacy is adequacy of equity to engross tremors that a SACCO might face (Kosmidou, 2013). Capital performs a crucial role in promoting performance. Clients have a concern with the adequacy of financial institutions' capital to ensure that their deposits are safe. Capital sufficiency which is indicated by capital-asset ratio is a necessity for all financial institutions successful survival which is the role of deposits and capital funds. A financial institution with adequate capital have the capability of absorbing losses since capital performs a vital role in decreasing bank closures and losses to depositors when a bank closes (Kamau, 2015). Table 4.3 below shows the relations between capital adequacy and financial performance of deposit taking SACCOs in Nairobi County.

It was found that capital adequacy had a significant relationship with financial performance of licensed deposit taking SACCOs in Nairobi, Kenya at $\alpha=0.01$. This implied that for every unit increase in capital adequacy practice, financial performance would increase by 0.183. The study determined the extent to which asset quality management contributes to SACCOs' financial performance by computing the coefficient of determination (r^2). The extent to which capital adequacy practice influences contributes to SACCOs' financial performance is equal to the Square of Pearson correlation coefficient, that is, $r^2 = (0.183)^2 = 0.033489$.

Ejoh and Iwara (2014) argued that high capital contributes to lower profits because financial institutions with high capital ratio are risks-hostile, they overlook possible investment chances and in return shareholders' plea for a reduced return on capital in exchange for fewer risks. Gavila and Barbra (2012) argued that even though capital is costly with regards to anticipated returns, financial institutions with high capital experience low cost of running

bankrupt, less necessity for seeking for funds from outside particularly in developing economies where borrowing externally is hard. Therefore, financial institutions with adequate capital make more profits as compared to those with low capitals.

Mwandia (2014) established that capital adequacy eventually influences how better SACCOs can handle shocks in the balance sheets. Adequate capital develops liquidity for a financial institution since customers are more susceptible to instability. In addition, higher capital minimizes the likeability of stress (Diamond, 2014). Adequate capital supports development of funds and offers security over bankruptcy. Achieving capital necessities is a crucial factor in assessing capital sufficiency. A study conducted by Shahchera (2012) is consistent with the findings of our study which found that capital adequacy was correlated with financial performance with financial institution in Malaysia using Bank as case study. Another study by Alzorqan (2014) found that there is a significant influence of capital adequacy on banks performance.

Table 4. 3: Capital adequacy Management Practice and Financial Performance

		Return on Asset
Capital adequacy	Pearson Correlation	0.183*
	Sig. (2-tailed)	0.010
	N	196

** . Correlation is significant at the 0.01 level (1-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Author (2018)

4.3.3. Capital Leverage Management Practice and Financial Performance

Financial institutions use capital leverage with an aim of gaining greater profits of fixed charges funds than their expenses (Enekwe, Agu & Eziedo, 2014). A financial institution has higher chances of risks if debt levels are high since it's the role of the financial institution to pay the interests resulting to large cash expenditure (Al-Otaibi, 2013). Higher costs of incurring debts

will contribute to reduced earnings and liquidity disaster as a result of spending more cash (Jacob, 2014). Table 4.4 below describes capital leverage and financial performance of deposit taking SACCOs in Nairobi County. It was found that capital leverage practice had a significant relationship with financial performance of licensed deposit taking SACCOs in Nairobi, Kenya at $\alpha=0.01$. This implied that for every unit increase in capital leverage practice, financial performance would increase by 0.223.

The study then attempted to determine the extent to which capital leverage practice contributes to SACCOs' financial performance by computing the coefficient of determination (r^2). The extent to which capital leverage practice influences contributes to SACCOs' financial performance is equal to the Square of Pearson correlation coefficient, that is, $r^2 = (0.223)^2 = 0.049729$.

A study by Thaddeus and Chigbu (2012) was found to be consistent with the findings of our study which found capital leverage influenced the profitability of Banks. Another study by Enekwe, Agu & Eziedo (2014) assessed the effect of financial leverage on financial performance of Nigeria pharmaceutical firms. The study found debt-equity ratio had a negative relationship with profitability. He concluded that high debt levels might lead to instability of financial institutions. Ismail (2016) concluded that financial leverage has an adverse impact on financial performance. Another study by Ochieng (2014) established a positive correlation between financial leverage and profitability of SACCOs in Kenya.

Table 4. 4: Capital Leverage Management Practice and Financial Performance

		Return on Asset
Capital Leverage	Pearson Correlation	0.223**
	Sig. (2-tailed)	0.002
	N	196

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Author (2018)

4.4. Diagnostic tests

The respondents aggregate score of capital adequacy, asset quality and Capital leverage and SACCOs financial performance. To compute multiple regression between response variable (Sacco’s performance) and the predictor variables (capital adequacy, asset quality and Capital leverage) multicollinearity of residuals were tested and results were as follows.

4.4.1. Choosing the appropriate model

Hausman test was performed to determine which of the two panel data models to use for the data (random effects or fixed effects). The Hausman test results are presented in Table 4.4 indicating a p-value < 0.05 (H1 is true) of 0.03632 as presented in table 4.3, Fixed Effects model was chosen.

Table 4.5 Hausman test

	GLS Model	Fixed Effect Model	Random Effect Model	Hausman Test
Prob. – values	0.0000	0.0000	0.0000	0.03632
F – test	50.58	17.34		
Wald chi2(3)			13.06	0.0091
chibar2(01)				

Source: Author (2018)

4.4.2 Multicollinearity

Table 4.6: Multicollinearity test

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.089	.012		7.190	.000		
Capital Leverage	.001	.008	.009	.072	.943	.262	3.818
Asset quality	.025	.009	.375	2.853	.005	.264	3.785
Capital adequacy	.119	.023	.360	5.174	.000	.942	1.061

a. Dependent Variable: Return on Asset

Source: Author (2018)

Table 4.8 presents analysis on multicollinearity of liquidity risk management factors. Variance inflation factors (VIF) is used to explain how much amount multicollinearity (correlation between predictors) exists in a regression analysis. According to Hair *et al.* (1995), any value of $VIF > 10$ indicates presence of multicollinearity. Therefore, in this case the researcher concludes there is no multicollinearity. This implies that all factors predicting financial performance are correlated to one another and therefore they can be fitted in a multiple regression to predict the financial performance of SACCOs.

4.4.3. Heteroscedasticity

Table 4.6 below shows the results of heteroscedasticity test between capital Leverage, asset quality, asset adequacy and financial performance. Based on the output in the table, the obtained value of sig for capital Leverage, asset quality and asset adequacy are greater than $\alpha=0.05$ implying that there is no heteroscedasticity

Table 4.7: Heteroscedasticity test

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.011	.004		2.822	.005
	Leverage	-.007	.005	-.212	-1.458	.147
	Asset quality	.004	.005	.106	.734	.464
	Capital adequacy	.028	.014	.155	2.029	.054

a. Dependent Variable: absUT

Source: Author (2018)

4.4.4. Linearity test

Table 4.8, 4.9 and table 4.10 below shows the results of linearity test between capital Leverage, asset quality, asset adequacy and financial performance.

Based on the ANOVA output in table 4.7, the P value deviation from linearity of $.996 > 0.05$. This implies that there is a linear relationship between capital Leverage and Performance

Table 4.8: Performance * capital Leverage Linearity test

ANOVA Table							
			Sum of Squares	df	Mean Square	F	Sig.
Return on Asset * capital Leverage	(Combined)		.041	66	.001	.671	.964
	Between	Linearity	.008	1	.008	8.609	.004
	Groups	Deviation from Linearity	.033	65	.001	.549	.996
	Within Groups		.119	129	.001		
	Total		.160	195			

Source: Author (2018)

Based on the ANOVA output in table 4.8, the P value deviation from linearity of $.190 > 0.05$. This implies that there is a linear relationship between Asset quality and Performance.

Table 4. 5: Return on Asset * Asset quality Linearity test

			Sum of Squares	df	Mean Square	F	Sig.
		(Combined)	.044	58	.001	1.541	.025
Return on Asset * Asset quality	Between	Linearity	.010	1	.010	20.207	.000
	Groups	Deviation from	.034	57	.001	1.213	.190
		Linearity					
	Within Groups		.057	116	.000		
	Total		.102	174			

Based on the ANOVA output in table 4.8, the P value deviation from linearity of $.003 < 0.05$. This implies that there is linearity is violated. This was corrected by creating capital adequacy variable known as “capital adequacy squared”.

Table 4. 6: Return on Asset * capital adequacy Linearity test

			Sum of Squares	df	Mean Square	F	Sig.
		(Combined)	.052	36	.001	2.109	.001
Return on Asset * capital adequacy	Between	Linearity	.005	1	.005	7.992	.005
	Groups	Deviation from	.046	35	.001	1.941	.003
		Linearity					
	Within Groups		.108	159	.001		
	Total		.160	195			

Source: Author (2018)

4.5. Model fitting

Fixed effects model was used to examine the fixed effects of liquidity management on the financial performance of deposit taking SACCOS in Nairobi, Kenya. Liquidity management practices factors include; capital adequacy, capital leverage ratio, and asset quality as predictors.

Table 4.10 outlines the dimensions of the model indicating the parameters and repeated cases.

Table 4.11: Model Dimension

Table 4.11 below shows that both asset quality and capital adequacy are significant at $\alpha= 0.05$ Level. This implies that capital adequacy and asset quality are potential important predictors of the financial performance of deposit taking SACCOs in Nairobi County. On the other hand capital leverage was insignificant at $\alpha= 0.05$ implying that capital leverage is not a significant predictor of the financial performance of deposit taking SACCOs in Nairobi County.

	Number of Levels	Covariance Structure	Number of Parameters	Subject Variables	Number of Subjects
Fixed Effects	Intercept	Unstructured	1	Serial number	175
	Capital Leverage		1		
	Asset quality		1		
	Capital adequacy		1		
Repeated Effects	year		5		
Total			19		

a. Dependent Variable: Return on Asset.
Source: Author (2018)

Table 4. 7: Type III Tests of Fixed Effects

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	165.387	229.492	.000
Capital Leverage	1	39.945	.008	.928
Asset quality	1	47.466	6.029	.018
Capital adequacy	1	163.024	35.646	.000

a. Dependent Variable: Return on Asset.
Source: Author (2018)

Table 4.13 gives estimates of individual parameters, as well as their standard errors and confidence intervals. The findings show that capital adequacy and asset quality significantly predicted financial performance of deposit taking SACCOS in Nairobi, Kenya at $\alpha=0.05$. Nonetheless, the findings established that there was no significant influence of capital leverage practices on financial performance of deposit taking SACCOS in Nairobi, Kenya at $\alpha=0.05$

Table 4. 13: Estimates of Fixed Effects

Estimates of Fixed Effects							
Parameter	Estimate	Std. Error	Df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	.092112	.006080	165.387	15.149	.000	.080106	.104117
Capital Leverage	.000899	.009878	39.945	.091	.928	-.019066	.020865
Asset quality	.025265	.010289	47.466	2.455	.018	.004571	.045959
Capital adequacy	.129818	.021744	163.024	5.970	.000	.086883	.172753

a. Dependent Variable: Return on Asset.

Source: Author (2018)

Fitting the findings in the model, we get;

Financial performance = .092112 + .000899(Capital Leverage) + .025265(Asset quality) + .129818
(Capital adequacy)

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings, conclusion and recommendations of the study based on the objective of the study which was to examine the influence of liquidity risk management practices on the financial performance of licenced deposit taking SACCOs in Nairobi, Kenya.

5.2 Summary

This section presents a summary of the findings as per the research objectives and the research questions.

5.2.1 Asset Quality Management Practice and Financial Performance

Non-performing assets affects operating success which also affects revenue, liquidity and creditworthiness of financial institutions. Khalid (2013) argues that an increase in the quality of loan improves the profits on bank loans and reduces the costs of failure. Enough loan provision, application of strong loan assessment processes and successive recovery techniques can be used to manage the loan assets and re-establish the best equilibrium in liquidity. Assets quality is a powerful determining factor of SACCOs' financial performance since it affects the interest revenue and also decreases the expense of managing non-performing loans according to the law.

Aburime (2013) stressed that financial performance of financial institutions is dependent on its capability to forecast, prevent and observe risks, perhaps to cater for losses as a result of risks. Rehema (2013) asserted low asset quality contributes to an increase in defaulted loans resulting to shortage in liquidity. Furthermore, it results to overstated value of assets and income. Due to the fact that customers' deposits are not safeguarded, there is likelihood of liquidity

scarcity due to inadequate capital to satisfy the day to day demand to withdraw. Khalid (2013) asserted that an increase in the quality of loan improves the profits on bank loans and reduces the costs of failure, a finding that is consistent with the findings of this study which found that asset quality had a significant relationship with performance of licensed deposit taking SACCOs.

5.2.2. Capital Adequacy Practice and Financial Performance

The effect of capital adequacy on Sacco's financial performance cannot be underestimated since adequate capital directly and automatically influences the amount of funds available for loans, which invariably affects the level and degree of risk absorption. According to Dang (2011), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR). Capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis. Mwandia (2014) established that capital adequacy eventually influences how better SACCOs can handle shocks in the balance sheets.

This study found that asset quality had a significant relationship with financial performance deposit taking SACCOs. The findings of this study were consistent with findings of Onuoga (2014) which found that capital adequacy has a positive relationship with bank performance. However, Shahchera (2012) study findings contracts the finding of our study; Shahchera found capital adequacy did not have significant relationship with performance.

5.2.3. Capital Leverage Practice and Financial Performance

Leverage gives room for higher profits to investors although chances of losses are high when the venture loses its value, the loan principal and accumulated interest required to be paid (Andy *et. al.*, 2012). Studies have found debt-equity ratio had a negative relationship with profitability. He concluded that high debt levels might lead to instability of financial institutions. For instance, a

study by Ismail (2016) concluded that financial leverage has an adverse impact on financial performance.

According to the findings of this study capital leverage practice had a significant relationship with financial performance of licensed deposit taking SACCOs; a finding which is consistent with the finding of Al-Otaibi (2013) who found that capital leverage had influence on profitability of financial institutions in Saudi Arabia. Another study by Enekwe, Agu & Eziedo (2014) which assessed the effect of financial leverage on financial performance of Nigeria pharmaceutical firms support the findings of this study. Consequently, Ismail (2016) study on influence of financial leverage on profitability of non-financial institutions at Nairobi securities exchange found capital leverage had effects of performance of non-financial institutions.

5.2.4. Liquidity Risk Management Practice and Financial Performance

Liquid assets in all firms whether they are profit making or not for profit have become limited and liquidity risk has increased. Financial institutions have established intricate and very laborious liquidity management programs to manage their operations due to the fact that performance is positively influenced by liquidity (Adebayo, Adeyanju & Olabode, 2013).

According to findings of this study capital adequacy and asset quality significantly predicted financial performance of deposit taking SACCOS while capital leverage practices had no significant effects on financial performance of deposit taking SACCOS when three factors are combined. According to Njeru (2016), 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.

5.3. Conclusions

5.3.1 Asset financing and Financial Performance

From the findings of this study, the researcher concludes that asset quality management practice has influence on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya. Since asset quality is a ratio between total loan and total assets, it implies that increase in total loans with respect to total assets will increase financial performance of SACCOs.

5.3.2. Capital Adequacy and Financial Performance

The study also concludes that capital adequacy practice has influence on the financial performance of licensed deposit taking SACCOs in Nairobi, Kenya. Increasing capital with respect to total assets would lead to increase in financial performance of deposit taking SACCOs.

5.3.3. Capital leverage and Financial Performance

Finally, it was concluded that capital leverage practice has negative influence on financial performance of licensed deposit taking SACCOs in Nairobi County, Kenya. However, when ensuring asset quality and capital adequacy, the effect of capital leverage is minimized.

5.4. Recommendation to Policy Makers

Increase in asset quality implies that there is increase in loan and advances. Loans and advances are usual financial institutions' assets that need a stern assessment of asset quality. Since increase in asset quality ratio increases financial performance of deposit taking Saccos, the study recommends the SACCOs to increase their loans and advances which will lead to increase the asset quality ratio and hence the increase in financial performance of SACCOs.

Secondly, the study recommends SACCOs to increase the capital adequacy ratio this could be achieved by increasing the capital in a SACCO. A financial institution with adequate capital has the capability of absorbing losses since capital performs a vital role in decreasing financial institution closures and losses to depositors when a bank closes. High capital contributes to lower profits because financial institutions with high capital ratio are exposed to risks. Therefore, the researcher recommends SACCOs to focus on increasing capital which in turn will lead to increase in capital adequacy ratio.

The study also recommends SACCOs to strive to build its equity as it has lower risk as compared to debts financing, i.e. SACCOs should strive to lower their capital leverage ratio which can be achieved by regulating debts. A financial institution has higher chances of risks if debt levels are high since it's the role of the financial institution to pay the interests resulting to large cash expenditure. Since capital leverage is a function of debts and equity, SACCOs should strive to maintain the capital leverage ratio as low as possible by increasing their equity.

5.5. Suggested Areas for Future Research

This study recommends a study on internal controls on financial performance of Saccos in Kenya. This would complement the findings of this study which concentrated on the influence of liquidity risk management practices of performance of deposit taking SACCOs.

5.6 Limitation of the study

This study was limited to deposit taking SACCOs in Nairobi County between year 2013 and 2017. Further study could be conducted targeting all deposit taking Saccos in Kenya and even a wider period of time. The study was also limited to asset quality, capital adequacy and capital leverage. A study can be conducted target other variables contributing to the profitability/financial performance of financial institutions.

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APPENDICES

Appendix I: List of Licensed Deposit Taking SACCOs in Nairobi Kenya

1.	AFYA
2.	AIPORTS
3.	ARDHI
4.	ASILI
5.	CHAI
6.	CHUNA
7.	COMOCO
8.	ELIMU
9.	FUNDILIMA
10.	HARAMBEE
11.	HAZINA
12.	JAMII
13.	KENPIPE
14.	KENVERSITY
15.	KENYA BANKERS
16.	KENYA POLICE
17.	KINGDOM
18.	MAGEREZA
19.	MAISHA BORA
20.	METROPOLITAN NATIONAL
21.	MWALIMU NATIONAL
22.	MWITO
23.	NACICO
24.	NAFAKA
25.	NASSEFU
26.	NATION
27.	NYATI
28.	SAFARICOM
29.	SHERIA
30.	SHIRIKA
31.	SHOPPERS
32.	STIMA
33.	TAQWA
34.	TEMBO
35.	UFANISI
36.	UKRISTO NA UFANISI WA ANGALICANA
37.	UKULIMA
38.	UNAITAS
39.	WANA ANGA
40.	WANANDEGE
41.	WAUMINI

