

**THE EFFECT OF ASSET QUALITY ON THE FINANCIAL
PERFORMANCE OF SAVINGS AND CREDIT COOPERATIVE
SOCIETIES IN NAIROBI COUNTY**

BY

PHILIP MUCHIRI KARIUKI

**A RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF
DEGREE OF MASTER OF BUSINESS ADMINISTRATION,
UNIVERSITY OF NAIROBI**

AUGUST, 2016

DECLARATION

I hereby declare that this research is my original work and has not been presented for a degree in any other University.

Signed _____ Date _____

PHILIP MUCHIRI KARIUKI

D61/78672/2012

This research project has been submitted for examination with my approval as the University Supervisor.

Signed _____ Date _____

Mr. Ronald Chogii

Signed _____ Date _____

Dr. Lisiolo Lishenga

Lecturers, Department of Finance and Accounting

School of Business, University of Nairobi

ACKNOWLEDGEMENTS

I am indebted to God for having enabled me complete this MBA program; for providing the wisdom and direction in this journey -Thank you Lord!

The success of this study is not exclusively my own. I would therefore wish to acknowledge and express my deepest gratitude to the following people for their contributions that made this study possible.

My family for their moral support and encouragement during this academic journey. Certainly the largest expression of my gratitude goes to my wife Stella whose patience, encouragement and understanding made this educational journey possible.

University of Nairobi management, lecturers and facilitators of the school of business for the various roles each one of them played towards the successful completion of this project including provision of learning materials.

I owe my supervisors Mr. Ronald Chogii and Dr. Lisiolo Lishenga a special gratitude for their immense support and guidance. Their positive criticism greatly enhanced and enriched this study. Thank you for your patience and for being available during the research project.

Special thanks to Mr. Jeremy Were the head of research, and Mr. Evans Odongo incharge of the registry at SASRA, for allowing me access and for helping me locate all the records that I needed in the course of collecting data.

To all my colleagues in the MBA class - thank you not only for your support, but also for always being there for me.

I owe the success of this project to you all-Thank you all and may God richly bless you.

DEDICATIONS

To my son Azzie, you are a great inspiration to me – Thank you, I love you.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
DEDICATIONS	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
ABSTRACT.....	x
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background to the study	1
1.1.1 Asset Quality	1
1.1.2 Financial Performance	2
1.1.3 Asset quality and financial performance	2
1.1.4 Deposit Taking Savings and Credit Cooperative Societies	4
1.2 Research problem.....	5
1.3 Objective of the study	6
1.4 Value of the study	6
CHAPTER TWO: LITERATURE REVIEW.....	8
2.1 Introduction.....	8
2.2 Theoretical Review	8
2.2.1 Modern Portfolio Theory.....	8
2.2.2 Capital Asset Pricing Model.....	9
2.2.3 Arbitrage Pricing Theory	10
2.3 Determinants of Financial Performance	10
2.3.1 Asset Quality	11
2.3.2 Liabilities	12

2.3.3 Loan book	12
2.3.4 Corporate governance	13
2.3.5 Quality of staff	13
2.3.6 Regulations	14
2.4 Empirical Review	15
2.5 Summary of Empirical Review	17
CHAPTER THREE: RESEARCH METHODOLOGY	18
3.1 Research design	18
3.2 Target Population	18
3.3 Sampling and Sample Size	18
3.4 Data Collection	18
3.5 Data Analysis	19
3.5.1 Conceptual Model	19
3.5.2 Analytical Model	21
3.5.3 Diagnostic Tests	21
3.5.4 Test of Significance	21
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION	22
4.1 Introduction	22
4.2 Research Findings	22
4.2.1 Diagnostic Tests	22
4.2.2 Descriptive Analysis	23
4.3 Correlation Analysis	25
4.4 Regression of Asset Quality and Financial Performance	26
4.5 Discussion of Research Findings	29
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS ...	31

5.1 Introduction.....	31
5.2 Summary of Findings.....	31
5.3 Conclusion	32
5.4 Recommendations.....	32
5.4 Limitations of the Study.....	32
5.5 Suggestions for Future Research	33
REFERENCES.....	34
APPENDICES.....	37

LIST OF TABLES

Table 4.1: Diagnostic Tests.....	22
Table 4.2: Yearly Mean Scores of Financial Performance and Asset Quality Factors.....	23
Table 4.3: Correlation on Financial Performance and Asset Quality Factors	25
Table 4.4: Model Summary	26
Table 4.5: Analysis of Variance (ANOVA)	27
Table 4.6: Regression Coefficients	28

LIST OF FIGURES

Figure 1: Conceptual Framework	17
--------------------------------------	----

ABSTRACT

The purpose of this paper was to assess the effect asset quality has on the financial performance of cooperative societies Nairobi County, Kenya. The study sort to identify the determinants of financial performance of the cooperative societies and further establish the nature and strength of the relationship between asset quality and financial performance of the societies. The study employed descriptive research design. Secondary data was collected from the regulator, the Sacco Societies Regulatory Authority's. Data was collected from the annual financial reports that are submitted to the regulator annually and also from the regulator's own annual supervision reports. Quantitative data was coded and entered into Statistical Packages for Social Scientists and analyzed using descriptive statistics, correlation analysis and ANOVA. Quantitative data is presented in tables while text is used to give explanations to these and qualitative data. From the analysis, the asset quality factor identified-the proportion of investment in an asset to total assets, had a fairly statistical significant effect on financial performance. This implies that asset quality is not an exclusive determinant of financial performance. Other determinants identified in the study include the asset base, liabilities, loan book, corporate governance, quality of staff and regulations. Based on the findings, a positive relationship between asset quality and financial performance was established. A small increase in asset quality could result to a higher financial performance due to reduction in provisions. Having found that cooperative invested more than 70 percent of their funds in loans and advances, the study recommends a strict determination of loan asset quality to reduce loan losses. Further research on the other factors influencing the performance would add great value to the performance of cooperatives and academic literature.

CHAPTER ONE: INTRODUCTION

1.1 Background to the study

Ombaba, 2013 assert that asset quality also referred to as portfolio quality has been defined as the total risk associated with the various assets held by an entity. Asset quality is usually used to gauge the extent to which assets are at an economic risk and thus establish how much provision for probable losses must be made. Due to the risk of borrowers defaulting on repayment obligations, loans and advances require a stern assessment of quality to avoid these turning non-performing assets and also reduce the provision for loan losses must be made.

According to Van Horne et al (2010) a portfolio is a combination of two or more assets, or categories of assets invested in. It is an investment in a blend of broad asset classes aimed at obtaining optimum return with minimum risk through diversification. An investment is a present allocation of resources in anticipation of a future inflow of funds that will reward the investor. Diversification of investment helps to spread risk over many assets because in a well-diversified portfolio of investments, some assets may not perform while some may perform, thus balance exists. Managing a portfolio thus predominantly involves minimizing risk rather than maximizing return.

The subject of this research is founded on the basis that there has been little empirical research on asset quality, particularly with respect to the relationship between asset quality and financial performance of cooperative societies in Kenya.

1.1.1 Asset Quality

Asset quality is an appraisal or assessment assessing the risk associated with a specific asset that usually requires interest payments – e.g. investment portfolios. Risk advisors often evaluate the quality of such assets by allocating an arithmetical grade to the various assets contingent upon how much risk is associated with the asset. The rating naturally weakens with a drop in timely and full repayment.

Many factors are considered when measuring asset quality. These include the level of portfolio diversification, regulatory framework and efficiency of operations among others. The risk level associated with an asset is measured by decrease in uncertain assets, fall in provision losses, reduction in non-performing loans, and growth in receivables. While cooperative societies continue to expand their provision of financial products, loan and advances still form the major element of its asset base. For that reason, asset quality remains a fundamental pointer of a cooperative society's financial viability.

1.1.2 Financial Performance

Financial performance denotes the extent to which financial goals of an organization are accomplished by ensuring that resources available are used in the most efficient and effective way. The essence is to provide for the organization the maximum return on the capital employed in the business. Monetary terms are used to measure the financial performance of an entity's strategies and processes. The measuring is done by evaluating various aspects of the organization. It involves computing and analyzing various ratios to come up with comparative data for a given period. The measures include liquidity, solvency, profitability and financial efficiency among other critical financial aspects.

Financial performance for cooperative societies is very important because managers need to know how well the cooperative societies are performing. There are two major reasons as to why Savings and Credit Cooperative Societies should have financial performance measurement (Johnson and Rogelio, 1997)-timely production of financial statements, and to produce information that would help them improve their performance, through analysis of the statements.

1.1.3 Asset quality and financial performance

According to Van Horne et al (2010) performance is defined as the reward that members get from the investment of their funds. A return from a portfolio is the weighted average of returns projected from the various assets included. The weights in this case are equivalent to the portion of funds committed in the various assets, out of the total funds. The most significant decision in managing portfolios according to Chandra (2009), is the asset mix decision.

There are various theories employed in managing portfolios. These are based on a number of assumptions concerning the behavior of the investor. Under Markowitz Portfolio Theory, a particular asset or portfolio is said to be efficient if it promises greater expected return with the same or lower risk, or lower risk with the same or greater expected return when compared to another asset or combination of assets. Capital Asset Pricing Model illustrates how risk and return can be linked together. The CAPM equation suggests that the expected return on any (risky) asset is equivalent to the riskless rate of return added to a risk premium. That the expected returns of assets vary only due to the variations in their betas. The Arbitrage Pricing Theory assumes well-diversified portfolios and forecasts an association amongst the return of a single asset and that of a portfolio via a linear combination of numerous independent macro-economic factors. The central idea behind this model is that we can price some assets in relation to other assets.

From an accounting perspective, the concept of “prudence” requires that assets should be reviewed and revalued to reflect their realistic value because the value of certain assets is a function of some future events and or developments. To comply with the “matching” principle the cost of such assets have to be allocated to the periods that will benefit from such assets. The expenditures for these assets are matched against the revenues that the assets help to produce through provisions. From this view, adequate provisions should be made, if it is likely that the entity will not be able to collect all the amounts due as per the contract, thus recognizing impairment. Financial institutions should thus save some funds that are charged to the income statement as provisional expenses, to safeguard against any losses that it may incur in future.

Ombaba (2013) noted that asset quality is a strong determinant of financial institution performance because it influences the interest incomes while at the same time reduces the cost burden of bad debts management. The higher the non-performing assets to the gross / net assets book, the lower the asset quality and vice versa and therefore it means that the trade-off between asset quality and financial performance is expected to be negative. Ales and Bosworth (1998) argues that loss of principal and interest, costs of recovery and the opportunity cost of time taken to recover defaulted loans weakens an entity’s financial

viability. Poor financial performance of an institution will affect the attraction of the institution to would be investors which may lead it to insolvency and eventual collapse (Amalendu and Sri, 2011).

1.1.4 Deposit Taking Savings and Credit Cooperative Societies

The Sacco subsector is a major actor in the delivery of financial services to Kenyan individuals and small and medium enterprises. In 2014, the statistical report of World Council of Credit Unions (WOCCU), documented a total of 57,000 credit unions. The Unions (Savings and Credit Cooperative Societies) had a combined savings of \$ 1.5 trillion (US dollars), and an asset base of \$ 1.8 trillion (US dollars) out of which \$ 1.2 trillion (US dollars) constituted the loan portfolio. In the report, the Kenyan subsector recorded an impressive performance and continued to maintain its first ranking position in Africa, in terms of the asset base.

According to Owen (2007), the first Savings and Credit Cooperatives were registered in Kenya in 1964 after the country became independent in 1963. The Sacco subsector in Kenya is regulated by the Sacco Societies Regulatory Authority, a state corporation established with the primary obligation of licensing, supervising and regulating the sector in Kenya. The Deposit-taking Sacco Societies are part of the larger sector in Kenya which consist of the deposit-taking and the non-deposit taking Sacco societies. The regulator's mandate under the Sacco Societies Act and Regulations 2010 applies only to deposit-taking Sacco Societies. The Authority had as at December 2014 renewed a total of 180 licenses for deposit-taking Sacco Societies to operate in 2015(Sacco Supervision Annual Report 2014).

The Authority requires Savings and Credit Cooperative Societies to follow the guidelines on categorization of risk assets and loss provisioning of the same. An analysis of the aggregate balance sheet of Savings and Credit Cooperative Societies for the period ending December 2014 showed that Deposit-taking Sacco Societies registered an improved performance in key asset headings, recording an increase of 17.2 percent from Kshs 257.4 billion in 2013 to Kshs 301.5 billion in 2014. The major investments

included: Cash and Cash Equivalents 9%, Prepayments & Other Receivables 6%, Investments 4%, Loans and advances 74% Properties, Equipment and other assets 7%.

The Authority has been implementing a risk based supervision model using the CAMEL-rating framework, which aims to identify risks associated with the deposit-taking business. Explicitly, the regulator directs that the loans and advances be categorized based on repayment vis-à-vis loan contract terms.

1.2 Research problem

According to Jones (1994), portfolio performance involves assessing how good the various assets in the portfolio have performed. The performance is mainly measured by the return generated by the several assets combined in the portfolio. Chandra (2009) contends one has to decide how much will be committed in each of the asset class based on objectives of the organization and constraints on resources.

According to the Sacco Supervision Annual Report 2014, Loans and credit advances constituted over 74 percent of total assets in Deposit-taking Sacco Societies, hence the single largest asset in the statement of financial position, notwithstanding being the most risky. Loans and credit advances issued during the year increased by 15.8 percent. There was also an increase in the provisions for loan losses by 30.1 percent and an increase in the level of non-performing loans by 1.01 percent over the same period.

Obtainable records reveals that there have been differences in the returns declared to members of cooperative societies every year. Kimotho (2008) conducted a survey on the investment practices adopted by Savings and Credit Cooperative Societies based in Nairobi County. As much as he looked at the investment management strategies adopted and preferable investment areas, he did not look at the contribution each asset class made to the overall benefit declared. Wangi (2015) focused on effects of investment decisions on efficiency of deposit taking cooperative societies based in Nairobi County. He used efficiency is an indicator of how well an organization uses its resources to produce goods and services through cost reduction but ensuring that quality is maintained. He identified preferable investment areas but did not look at the extent to which each of the asset categories contributed to the overall financial performance.

Nzoka (2015) conducted a research to try and form the effect of asset quality on banks' performance in Kenya. He did not look at how banks invested in the different asset classes. The survey was limited to commercial banks and did not cover cooperative societies. Mayoli (2013) looked at allocation of financial asset in relation to financial performance of banks in Kenya. Mwendwa (2015) researched on commercial banks 'asset quality and the relationship with profitability in Kenya. Both studies were limited to commercial banks in Kenya, thus did not cover Savings and Credit Cooperative Societies.

Kiplagat (2014) surveyed pension funds in Kenya, specifically how their financial performance of was affected by asset allocation. As much as he looked at the various asset classes invested in and the effect on financial performance, the survey was limited to pension funds in Kenya, and did not cover Savings and Credit Cooperative Societies. Onyango (2011) researched on pension funds in Kenya. He looked at how financial performance was related to the investment strategies adopted by the fund managers, but failed to look at how the whole performance of the scheme was affected by the contribution of each specific asset class. From the above literature, there is a gap to address the influence of portfolio holdings on the financial performance of cooperative societies.

1.3 Objective of the study

To investigate the effect asset quality has on the financial performance of cooperative societies in Nairobi County.

1.4 Value of the study

This study will be of value to a number of stakeholders. Researchers within the Savings and Credit Cooperative Societies subsector will find the study useful as it will increase the existing body of knowledge and provide a basis for carrying out further research in Kenya. Scholars who would like to debate on whether asset allocation influence financial performance of entities will also find this study useful as it will provide them with a starting point.

The outcomes of this study will be useful to the regulator as it will contribute towards the formulation of better policies and rules that will be relevant in guiding investments of cooperative societies in various asset classes in Kenya. Besides, the findings of the study will inform the regulator on the need of revising existing policies on the asset allocation limits.

The study will help the Board of Directors to know the asset classes that have the greatest influence on the performance of their society, thus aid in allocation of resources to the various classes. The study will also help Board of Directors of to know the extent to which regulations on various asset classes have an effect on the performance of their society.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Literature review is any reading which provides necessary scholarly background needed for the subject under study. The reason for doing a literature review is to gain knowledge of what is already done regarding the current research problem under study. This knowledge of past studies assists the researcher to avoid pointless and accidental repetition of the same study; determine the structure of interpreting research findings; and prove their understanding of the existing knowledge (Emory, 1985). This chapter reviews the theories and literature concerning asset quality, determinants of financial performance and empirical studies. Lastly a summary review of the empirical studies and the gap this research intends to address is given.

2.2 Theoretical Review

Portfolio management is founded on various theories. Some of these include Modern Portfolio Theory, Capital Asset Pricing Model and Arbitrage Pricing Theory. Other theories include capital market theory, liquidity preference theory, and the segmented market/preferred habitat/institutional or the hedging pressure theory.

2.2.1 Modern Portfolio Theory

Modern portfolio theory was presented in 1952 by Harry Markowitz. The theory is founded on various assumptions about the behavior of investors –these include; considering every investment choice as being characterized by a probability distribution of anticipated returns over some period, that investors maximize one period expected utility and their utility curves exhibit decreasing marginal utility of wealth, investors approximate the risk of the portfolio based on the variability of estimated returns, investors' decisions being based solely on estimated return and risk, for a certain risk level, investors choose more to less returns, likewise, given a level of estimated return, investors choose less risk to more risk.

Risk aversion is generally assumed of investors. The risk management strategy employed in this theory is to hold a differentiated combination of assets-the more the assets, the less

the risk, with assets being evaluated in terms of the variance and covariance they add to the portfolio. Iyiola, Omisore, Munirat, Yusuf and Nwifo (2012) assert that the theory is a tactic in investment decisions that helps to categorize, approximate, and control the kind and the amount of risk and return that is expected from an investment. The crucial concept in this theory is that assets should not be chosen independently, but in consideration to how the price of each asset change relative to price changes of the other assets in the portfolio. This implies that a rational investor will choose a portfolio with more favorable risk-expected return profile. This theory explains how to find the best likely diversification strategy.

2.2.2 Capital Asset Pricing Model

William Sharpe introduced this model in 1964, based on Markowitz's portfolio theory. It demonstrates how risk and return can be linked together by determining what return an investor should require for assuming a given level of risk. It assumes investors maintain efficient portfolios where all unsystematic risks are eliminated. The theory is founded on a number of assumptions about the behavior of investors, including; that investors can lend or borrow unrestricted amount at a risk-free rate of interest, investors emphasis on a particular holding period, and seek to get the maximum expected utility of their terminal wealth by selecting amongst substitute portfolios based on each portfolio's likely return and standard deviation, all stockholders have similar expectations about the anticipated returns, variances and covariance amongst all the assets, all assets are perfectly marketable, transaction costs and taxes don't exist, all investors are price takers, that the quantities of assets are given and fixed.

Capital Asset Pricing Model explains the risk of a particular asset or portfolio using the surplus return on the market portfolio. It represents the connection that exists amongst risk and return stating that risk is weighed using the variations in the returns from an investment. The projected return from an investment is the reward, while the variations in returns represents the risk. This implies that investors will prefer the investment that has less variations in returns given two investments of equal returns. Likewise, given two investments of equal variations in the returns but dissimilar returns, investors prefer the investment offering greater return. If the expected return is less than the required return,

the investment should not be undertaken and funds should be returned to the shareholders to invest on their own to earn this expected return from other assets at the same risk level in the market.

2.2.3 Arbitrage Pricing Theory

Stephen Ross created this concept in the year 1976. It predicts an association amongst the returns of a portfolio and the returns of a single asset through a linear mixture of a number of independent macro-economic factors. The model is founded on a number of assumptions: a linear relationship exists between expected returns and risk factors, there exists an unlimited number of securities, investors' expectations being homogeneous, existence of perfect securities markets, well-diversified portfolios with no arbitrage opportunities in the market. The model is an approach to defining asset values based on law of one price and no arbitrage.

Arbitrage is taking advantage of a state of imbalance in a market thus attaining risk free profit. This model can be used to make profit through identification of miss-priced securities – those with a price difference from the theoretical price predicted by the model. The main idea behind this model is that some assets can be priced relative to other assets. This implies that two securities that always have the same payoff must have the same price. Investors applying this theory will be constantly scanning the market to identify assets with equal payoff but are priced lower-these should be included in their investment portfolio.

2.3 Determinants of Financial Performance

There are various factors that can be used to determine the performance of cooperative societies. These include; management practice that deals with corporate governance, education and training that deals with developing members, nature of business that elaborates the types of businesses the SACCO is engaged in, and long term investments that addresses investment decisions such as purchase of shares and properties (Ouma, 1990; Mwaura, 2005; Mbue, 2006; and Pandey, 2005).According to Daft (2000), performance refers to the economy, efficiency, and effectiveness of an activity. In this context therefore, an organization's performance is its ability to use its resources

economically, efficiently and effectively to achieve its goals. This involves habitual actions of setting organizational goals, checking progress made towards the goals, and making corrective adjustments to realize the set goals in a more economically, effective and efficient way.

Based on WOCCU's standards of measuring performance, the factors which determine the performance of cooperative societies include; asset base, liabilities, performance of the loan book, corporate governance and the quality of staff, and regulations in the industry (Kirkpatrick and Maimbo, 2002). According to SASRA, the performance indicators include loans and advances, membership, savings deposits and capital reserve.

2.3.1 Asset Quality

IASB Framework states that assets are resources under the control of an entity as a result of historical events and from which the entity presumes a flow of economic benefits in future. Before such a resource is recognized as an asset an entity's books, the inflow of such benefits must be likely and the cost or value be reliability measurable. Ombaba, (2013) asserts that asset quality is a strong determinant of financial institution performance because it influences the interest incomes and also the cost burden of bad debts management.

According to the Sacco Supervision Annual Report 2014, the Kenyan subsector registered an overall improved performance in total income driven mainly by loan interest income. Cooperative societies invest in a blend of broad asset classes including loans and advances, cash and cash equivalents, prepayments, receivables, properties, equipment, quoted and unquoted securities, government securities among others. The risk level associated with an asset is measured by decrease in uncertain assets, fall in provision losses, reduction in non-performing loans, and growth in receivables. From an accounting perspective, allowances for potential losses arising from risks associated with investments must be made and recognized in the financial statements. These allowances are recorded as expenses, which affect the overall performance. The major investments included: Cash and Cash Equivalents 9%, Prepayments & Other Receivables 6%, Investments 4%, Loans and advances 74% Properties, Equipment and other assets 7%. Due

to the size of investment in loans, the regulator directs that the loans and advances be categorized based on repayment vis-à-vis loan contract terms.

2.3.2 Liabilities

A liability is defined as a current obligation to pay, as a result of a historical event and which will result in a cost to the corporation in future. Liabilities are amounts that an entity owes and have to settle in the future.

IAS 37 outlines the accounting for liabilities. The main principle dictated by the standard is that an entity must estimate the expenditure needed to resolve the obligation and recognize a provision, taking into account the risks and uncertainties associated with the underlying event. Such provisions once recognized should only be utilized for the purpose for which they were initially recognized. Further the provisions must be revised at the close of each accounting year and an adjustment made to show the best most current estimate, or be reversed if it is no longer likely that resources will outflow from the entity to clear the obligation. These provisions are recognized as expenses in the financial statements of the entity thus affecting the financial performance when they are created, adjusted or reversed.

2.3.3 Loan book

Loan refers to money lent to a borrower for short-term, long-term or for unspecified period. A loan may be for general purpose or specific purpose. On the other hand advance refers to money paid in advance to meet a specific future expense, liability or to tide over some specific requirements. Advances are repaid in a shorter period than loans. Loans and credit advances constitute the largest percent of total assets of cooperative societies, hence the single largest asset in the balance sheet, yet the most risky.

According to Laurin and Majnoni (2003), accounting for loans include recognizing impairment and making necessary provisions if it is likely that the borrower will not repay all the amounts due – both principal and interest. The negative effects that provisions have on profits and dividends may make an entity be reluctant to account for all the amount of losses incurred. On the other hand, an entity may have the incentive to

exaggerate their loss provisions in cases where provisions are tax-allowable. This helps them spread their profits over time thus minimize their tax liability. In principle, loss provisioning recognizes the estimated loss from a particular portfolio, even before the actual loss can be determined with accuracy and certainty. These provisions are acknowledged in the books of the entity thus affecting the financial performance when they are created, adjusted or reversed.

2.3.4 Corporate governance

World Council of Credit Unions in their newsletter of January 2009 observed the following; “Just as a heart is to a human being, so is governance to an organization. Governance is defined by International Finance Corporation (2011), as; “The structures and processes for the direction and control of companies” or the “The manner in which the power of a corporation is exercised in the stewardship of the corporation’s total portfolio of assets and resources according to Private Sector Initiative for Corporate Governance (2002).Corporate governance thus concerns the relationships among all stakeholders.

According to Musyoki (2007), agency problems do exist giving rise to issues of corporate governance. Agency costs appear in form of conflicts between the various stakeholders who have a claim on the firm’s resources. Good governance attracts investors who bring in resources that finance the firms operations, besides giving them assurance that their investments will be safe and managed efficiently. Good governance also enrich the responsibility and performance of management by promoting efficient and effective use of available resources. Mwololo (2011) asserts that right governance is necessary to a company’s integrity, efficiency, long term growth and profitability. Kibet (2008) concluded that internal audit function played a role in corporate governance. Good corporate governance increase access to outside capital that finance assets while reducing agency costs which would otherwise be charged in the profit and loss account.

2.3.5 Quality of staff

Staff or human resource encompasses the knowledge, skills, experience and creativity of the people working in an organization (Sofian et al., 2006). Training and development of

employees can make them more productive or more effective in their jobs, positively contributing to the operations of the organization. Maxwell (2003) asserts that potential leaders are either an asset or liability to an organization. According to Helm (2011), employees are the face of the organization in every interaction with clients and other stakeholders.

Because staff interact one-on-one with customers, firms and especially service firms depend on steady and long term relationships with their customers. This continued relationship depends largely on how employees handle the clients (Cabrita and Bontis, 2008). In knowledge-based organizations, employees' knowledge is critical (Edvinsson and Malone, 1997). Davies et al. (2010) asserts that clients' opinion of an organization is influenced by their dealings with its staff and which eventually affects the firm's volume of revenue in future. Costs in training and development of employees are charged to the profit and loss. These include tuition paid to institutions, in-house training, subscriptions to professional bodies and seminars among others.

2.3.6 Regulations

Simiyu (2012), asserts that there is no a universally accepted meaning of the term "regulation" in legal and economic literature. In principle individuals and entities can be required by government to conform to recommended behavior, or face sanctions. According to Hertog (1999), regulation refers to the employment of legal instruments for the implementation policy objectives.

In Kenya the regulation of cooperative societies is implemented by Sacco Societies Regulatory Authority (SASRA). The authority's legal framework include the Sacco Societies Act, The Cooperative Societies Act, Sacco Society Regulations and the Constitution of Kenya. According to the Sacco Supervision Annual Report (2014), various tools have been developed to ensure effective carrying out of its legal mandate. These include operationalizing the Deposit Guarantee Fund, establishment of a central liquidity fund, institutionalization of the usage of information communication technology (ICT) as a means of filing regulatory returns, and the expansion of the credit information sharing platform to incorporate full file sharing with other financial sector credit players

such as banks and utility firms. The Authority requires cooperative societies to classify risk assets and provision thereof while observing the asset class allocation limits it has set.

2.4 Empirical Review

Several studies have been done on the topic of asset quality both locally and internationally. Stieglitz and Weiss (1981) noted that one major factor that affect the asset quality is high interest rates charged as a compensation for taking higher risks, causing adverse selection effects. Demircuc-Kunt (1989) and Barr and Siems (1994), presented that high levels of non-performing loans always preceded failure of banking institutions, implying that asset quality is a major predictor of insolvency.

A study that was done in Kenya by Nguthu (2009) showed investment policy adopted explained up to 62.4 percent of the variation in returns for pension schemes. Another study carried out by Kagunda (2011) represented asset allocation as a principal determinant of performance of unit trusts in Kenya, explaining a significant amount of the difference in returns. Omondi (2013) carried out a study to establish how performance of pension funds in Kenya was affected by asset allocation. The findings of the study were that asset allocation explained 28% of the variations in returns.

Adeolu, (2014) did a study on asset quality and performance of commercial banks in Nigeria. He concluded that asset quality had a strong and positive statistical influence on bank performance. However, he found no correlation between bank loans and its profitability which contradicts Khalid (2012) who reported an inverse correlation between asset quality and profitability in the banks. Trujillo-Ponce (2012) studied what determined profitability for banks in Spain. The findings of the study were; that asset quality is indicated by loan loss provision to total loans and that provision for loan losses significantly and directly influenced bank profitability.

Staikouras and Wood (2004), found that bank profitability was negatively affected by loans loss provisions in European banks. Ahmed et al., (2010), established non-performing loans and loan loss provision to be significantly positively related. This implied that a rise in non-performing loans led to a rise in provision for loan loss and

ultimately a decline in profitability. According to Achou and Tenguh (2008), non-performing loans affect banks profitability inversely. Bourke (1989) found that banks with better quality assets have the ability to grow, besides finding cheaper sources of financing, and are thus able to absorb loan losses and increase their profitability.

Kamwaro (2008) carried out a study on how financial performance of investment companies in Kenya was impacted by the choice of investment portfolio. From the findings the study revealed that the choice of investments in a portfolio affected the financial performance of the investment companies. Size of the companies was also found to have positively impacted the financial performance of the companies.

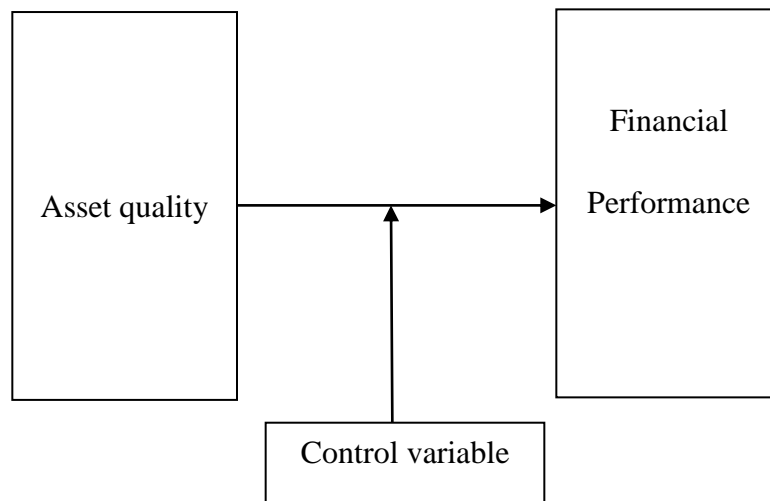
Kimotho (2006) did a survey on the investment practices among savings and credit cooperative societies in Nairobi. He noted, that investor needs and preferences were significant in choosing investments to include in a portfolio. He attributed this to pressure from members mainly during the annual general meetings. In addition, he found that the need for liquidity explained the reason for management to hold a larger portion of their assets in liquid for precaution purposes. In asset allocation, he found a majority of management had confidence in the efficiency of the Nairobi Stock Exchange and thus followed a simple buy-and-hold strategy.

Kinoti (2004) studied factors that influenced decisions on asset allocation by pension fund managers' in Kenya. He concluded that returns were a central factor that influenced fund managers asset allocation decisions. Legislation was the other significant factor that affected asset allocation. However, legislation had a very small effect on asset allocation. Other findings of the study were that there was good diversification of the assets of pension funds across all the investment categories.

In Kenya, Mwangela (2015) looked at the relationship between profitability and asset quality. He concluded that as commercial banks increase loans loss provisions, profitability and return on assets increases; and as banks generate more income for their non-lending activities, profitability and return on assets increased. He also noted negative relationships between expenses and return on assets, between growth in money supply and return on assets, between the annual inflation rate and return on assets and between market capitalization and return on assets.

Simiyu (2012) carried out a study on how regulation affected financial performance of cooperative societies. Regression results indicated that the relationship between introduction of prudential regulations and financial performance is positive and significant, implying that reporting regulations are required in managing the financial performance of cooperative societies.

Figure 1: Conceptual Framework



NB. Asset quality is not the only driver for financial performance.

2.5 Summary of Empirical Review

Assets quality cannot solely determine the performance of cooperative societies. The literature review has expounded how banks and pension funds have put in to use portfolio theory so as to minimize risk and maximize their returns, thereby linking asset quality with performance. From the past studies on assets quality and financial performance reviewed, it is clear that researchers have concluded varied results on the effect and relationship between asset quality and financial performance.

It is also clear from the empirical review that little local studies have been done to try establish the relationship between asset quality and financial performance of cooperative societies in Kenya. This study therefore seeks to establish the relationship.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research design

This study adopted descriptive research design with the aim of assessing how financial performance of cooperative societies in Kenya is effected by the quality of assets that they hold. Coldwell and Herbst (2004), asserts that this type of study determines the regularity of occurrence of something or the correlation amongst variables. The design was suitable for this research, as the researcher aimed to collect and analyze data to enable him describe an existing phenomenon in its current status, and describe relationship amongst different factors at the current time, without manipulating any of the factors.

3.2 Target Population

Target population refers to the population on which the study will be generalized (Mugenda and Mugenda, 2003). Currently there are 176 cooperative societies licensed by the Sacco Societies Regulatory Authority to operate in 2016. The target population of the study was the 44 cooperative societies based in Nairobi.

3.3 Sampling and Sample Size

In the study by Robert (2003), a sample is a subset of the total population that is used to give the general views of the target population. Sampling is necessary because it will not be easy to get information from all the targeted respondents owing to their different locations. Mugenda and Mugenda (2003) proposes for 10-30% of target population as representative. The researcher chose to study all the 44 cooperative societies based in Nairobi County, representing 25% of the entire target population.

3.4 Data Collection

This research entirely relied on secondary data sources. The researcher designed data collection forms that were used to collect data from financial statements of the cooperative societies. The forms were divided into two parts; the first part sort information on society, while the other part sort data depending on the research objective.

The researcher collected data on financial performance of cooperative societies covering a period of five years, from the year 2011 to 2015.

3.5 Data Analysis

3.5.1 Conceptual Model

Conceptually the dependent variable represented by financial performance, was evaluated using the model:

$$Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + e$$

Where;

Y—the dependent or responder variable, measured by return on equity

β - The coefficient of the predictor X variable.

X1-Ratio of loans and advances to total assets

X2-Ratio of money market investments to total assets

X3-Ratio of government securities to total assets

X4-Ratio of quoted equities to total assets

X5-Ratio of corporate bonds to total assets

X6-Ratio of fixed and call deposits to total assets

X7-Ratio of unquoted equities to total assets

X8-Ratio of debentures to total assets

e - the error term

Operationalization of the variables

Variable	Description	Measure
Return on Equity	Dependent Variable	ROE=Net surplus/Shareholders' Equity
Loans and advances	Independent variable	Ratio of total loans and advances to Total Assets
Money Market Investments	Independent variable	Ratio of Money Market Investments to Total Assets
Government Securities	Independent variable	Ratio of Government Securities to Total Assets
Quoted Equities (Safaricom, KCB, Co-op bank, CIC)	Independent variable	Ratio of Quoted Equities to Total Assets
Corporate Bonds	Independent variable	Ratio of Corporate Bonds to Total Assets
Fixed and call deposits	Independent variable	Ratio of Fixed and call deposits to Total Assets
Unquoted Equities (Co-op bank, CIC Ltd, KUSCO)	Independent variable	Ratio of Unquoted Equities to Total Assets
Debentures	Control variable	Ratio of Debentures to Total Assets

3.5.2 Analytical Model

Analytically the dependent variable represented by financial performance, was evaluated using the following model to determine the strength of the relationship between asset quality and financial performance.

$$ROE = f(TLA/TA, MMI/TA, GS/TA, QE/TA, CB/TA, FCD/TA, UE/TA, DT/TA)$$

Where;

ROE–Return on Equity, TLA–Total loans and advances, TA – Total assets, MMI - Money Market Investments, GS - Government Securities, QE - Quoted Equities, CB - Corporate Bonds, FCD - Fixed and call deposits, UE - Unquoted Equities, DT - Debentures

3.5.3 Diagnostic Tests

This study adopted a multiple regression model in which two or more predictor variables are correlated. Multicollinearity came about due to the assumption that there exists a linear correlation between two or more of the predictor variables. Multicollinearity did not lessen the model’s analytical power or reliability as a whole; it only upset calculations concerning specific predictors. This implies that, the multiple regression model indicated how well the set of predictors as a whole, predicts the dependent variable, but not any specific predictor, or which predictors are redundant in relation to others.

3.5.4 Test of Significance

This study was carried on all the 44 licensed cooperative societies based in Nairobi, representing 100 % of the target population. T-test was carried out to test the probability that an association between the two variables exists, and how strong the relationship is. To achieve statistical importance, a t-score must lie far-off from the mean i.e. be reasonably different compared with the value of the mean of the distribution. If the computed t-score is equal to, or is greater than the value of t specified in the table, the conclusion will be that statistically, there is a substantial probability that the relationship between the asset quality and financial performance exists. The research hypothesis was that asset quality has a correlation to financial performance of cooperative societies in Kenya.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

The main objective of this study was to determinate and evaluate the effect asset quality has on the financial performance of cooperative societies in Nairobi County. This chapter covers the analysis of the outcomes of the study which covered the period between the years 2011 to 2015. The independent variable financial performance adopted in this study was measured by return on equity. The predictor variable asset quality, was measured by the ratios of loan and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities, and debentures to total assets. In this chapter these variables are analyzed and used to estimate the model presented in chapter three.

4.2 Research Findings

This section is focused at forming the general trend of financial performance in relation to asset quality in the savings and credit cooperatives for the period covered by the study.

4.2.1 Diagnostic Tests

To evaluate the validity of the chosen regression model, the model was subjected to several diagnostic tests. For constant variance of residual over time, Breusch-Pagan test for heteroscedasticity and White Heteroscedasticity Test (LM) were used while the ARCH (Autoregressive conditional heteroscedasticity) test was used detect the problem of heteroscedasticity and Ramsey RESET test used for the specification of the regression. In addition, regression and correlation analysis were used to establish the association between the predictor and the responder variables.

Table 4.1: Diagnostic Tests

Test	F-statistics	Probability
Ramsey RESET Test:	1.23	0.290
White Heteroscedasticity Test:	2.28	0.064
ARCH Test	2.29	0.063
Breusch-Pagan Test for Heteroscedasticity	2.12	0.071

Source: Research Findings 2016

Table 4.1 shows the results of diagnostic tests which shows that at 5 percent confidence level, the parameters of the regression analysis were stable and the model can be used for estimation. All the probability values were less than F-statistics coefficients at 5 percent significance level and thus the null hypothesis was not rejected. The outcomes of the diagnostic test were therefore reasonable.

4.2.2 Descriptive Analysis

Table 4.2: Yearly Mean Scores of Financial Performance and Asset Quality Factors

Ratios	2015	2014	2013	2012	2011
Loans and advances	0.7388	0.7459	0.7572	0.7665	0.7725
Money Market Investments	0.0004	0.0007	0.0013	0.0001	0.0009
Government Securities	0.0002	0.0007	0.0013	0.0009	0.0010
Quoted Equities	0.0074	0.0101	0.0036	0.0152	0.0184
Corporate Bonds	0.0002	0.0003	0.0000	0.0000	0.0001
Fixed and call deposits	0.0090	0.0228	0.0248	0.0172	0.0117
Unquoted Equities	0.0124	0.0113	0.0129	0.0151	0.0128
Debentures	0.0115	0.0124	0.0138	0.0000	0.0000
return on equity	12%	12%	15%	12%	12%

Source: Research Findings 2016

Table 4.2 reports the aggregate scores of ROE from 2011 to 2015. The mean score of ROE for the whole sector was 12% in 2011 and increased by 3% in 2013 to 15%. Despite the increase in ROE in 2013, loans and advances averaged 75.62 percent of total assets held, hence the single largest asset in the cooperative societies' books. This confirmed the findings of the Sacco Supervision Annual Report (2014), which documented that loans and credit advances constituted over 74 percent of total assets in Deposit-taking Sacco Societies, hence the single largest asset in the statement of financial position, notwithstanding being the most risky. These findings also in line with the

statistical report of World Council of Credit Unions (2014), which documented that the loan portfolio constituted the largest asset in the cooperative societies amounting \$ 1.2 trillion (US dollars) out of an asset base of \$ 1.8 trillion (US dollars). The importance of this to a country's growth and development cannot be over emphasized as the Sacco subsector is a major player in the delivery of financial services to Kenyan individuals and small and medium enterprises thus play an important role of financial intermediation.

Table 4.2 shows that although the ratio of loans and advances to total assets displayed a decreasing trend from 2011 through to 2015, investment in this asset still remained high. This implies that giving loans and advances to members is the main business for the cooperative societies.

From the table the researcher notes that all the investments classes recorded fluctuating results in successive years, but displayed an overall decreasing trend from 2011 to 2015. The ratio of money markets to total assets fluctuated between 0.09% in 2011 and to stand at 0.04% in 2015, indicating reduction in this class of investment during the period covered by the study. Quoted equities ranged from 1.84% in 2011 to .74% in 2015 indicating reduction in this class of investment. Corporate bonds moved from 0.01% in 2011 to stand at 0.02% in 2015 indicating an increase in this class of investment. Fixed and call deposits moved from 1.17 to stand at 0.09% in 2015 indicating reduction in this class of investment. Unquoted equities moved from 1.28% in 2011 to 1.24% in 2015 indicating reduction in this class of investment. Debentures ratios noted a steady decrease from .0138% in 2013 to .0015% in 2015.

The largest drop in investment was recorded in loans and advances which shed 3.37 percentage points from 2011 to 2015. Corporate bonds recorded the least drop in investments, shedding only 0.01 points. Quoted equities lost 1.10 points, fixed and call deposits lost 0.27 points, government securities lost 0.08 points, money market investments lost 0.04 points while unquoted equities lost 0.04 points.

4.3 Correlation Analysis

Table 4.3: Correlation on Financial Performance and Asset Quality Factors

		ROE	TLA /TA	MMI /TA	GS /TA	QE /TA	CB /TA	FCD /TA	UE /TA	DT /TA
Pearson Correlation	ROE	1								
	TLA/TA	-0.363	1							
	MMI/TA	0.392	-0.230	1						
	GS /TA	0.401	0.863	0.127	1					
	QE/TA	0.441	0.563	0.027	0.241	1				
	CB/TA	0.546	0.363	0.037	0.341	0.354	1			
	FCD/TA	0.640	0.463	0.227	0.445	0.304	0.484	1		
	UE/TA	0.592	0.563	0.503	0.495	0.495	0.405	0.094	1	
	DT/TA	0.633	0.495	0.540	0.423	0.422	0.411	0.112	0.512	1

Source: Research Findings 2016

Table 4.3 illustrates the correlations outcomes between factors of asset quality and financial performance of cooperative societies, holding the correlation coefficient (r) value at between plus and minus one. A positive correlation shows the degree to which the variables correspondingly increase or decrease together while a negative one shows how one variable increases as the other decreases. The study used a two-tailed test with significance level of $\alpha = .05$ (95%) and degrees of freedom (df) of 5.

The results shows that ROE is negatively correlated with loans and advances, but positively correlated with money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures. Loans and advances are negatively correlated with money market investments, but

positively correlated with loans and advances, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures.

Market investments are positively correlated with loans and advances, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures with, the highest correlation being that with debentures. Government securities are positively correlated with loans and advances, money market investments, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures, the highest correlation being that with loans and advances. Quoted equities are positively correlated with loans and advances, money market investments, government securities, corporate bonds, fixed and call deposits, unquoted equities and debentures, the highest correlation being that with loans and advances.

Corporate bonds are positively correlated with loans and advances, money market investments, government securities, quoted equities, fixed and call deposits, unquoted equities and debentures, the highest correlation being that with return on equity. Fixed and call deposits are positively correlated with loans and advances, money market investments, government securities, quoted equities, corporate bonds, unquoted equities and debentures, the highest correlation being that with return on equity. Unquoted equities are positively correlated with loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, and debentures, the highest correlation being that with return on equity. Lastly the results indicate that debentures are positively correlated with loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, and unquoted equities, the highest correlation being that with return on equity.

4.4 Regression of Asset Quality and Financial Performance

Table 4.4: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
. 0.733 ^a	. 537	.521	.006095	2.009

Source: Research Findings 2016

- a. Predictors: Constant, Loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures
- b. Dependent Variable: Financial performance

The R² measures the goodness of fit of the asset quality factors variables in influencing the variations in the financial performance of cooperative societies. From the analysis, correlation coefficient(r) was 0.733 and the coefficient of determination (r²) was 0.537. This implies that 53.7% of the financial performance of the cooperative societies can be predicted by the asset quality factors identified in the study. It can thus be said that the correlation is statistically significant since the r² is positive, therefore asset quality does influence performance of the savings and credit cooperatives.

Durbin Watson (DW) test produced a value of 2.009. It can, thus, be concluded that there was no autocorrelation. This determines the independence of the residuals by checking if the residuals of the models were not auto correlated.

Table 4.5: Analysis of Variance (ANOVA)

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	.272	8	.034	32.760	.000 ^b
Residual	.003	4	.000		
Total	.275	12			

Source: Research Findings 2016

- a. Dependent Variable: Financial performance
- b. Predictors: Constant, Loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures

Analysis of Variance was used to test the significance of relation that exists between the variables; thus, model's significance. The ANOVA results presented in Table 4.5 shows that the regression model has a margin of error of $p < .001$. This indicates that the model has a probability of less than 0.1 of giving false prediction, indicating the significance of the model.

Table 4.6: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	.039	.061		.635	.528
Loans and advances	2.311	.000	.020	2.797	.044
Money markets investments	.302	.005	.042	3.429	.013
Government securities	.136	.001	.004	6.865	.004
Quoted equities	.314	.000	.020	2.934	.034
Corporate bonds	.442	.002	.044	3.425	.013
Fixed and call options	.939	.000	.081	2.865	.042
Unquoted equities	.216	.000	.010	5.797	.000
Debentures	.068	.005	.034	3.425	.013

a. Dependent Variable: Financial performance

b. Predictors: Constant, Loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures

Table 4.6 shows that the independent variables' regression coefficients. The regression model established was:

$$\text{ROE} = 0.039 + 2.311*\text{TLA} + 0.302*\text{MMI} + 0.136*\text{GS} + 0.314*\text{QE} + 0.442*\text{CB} + 0.939*\text{FCD} + 0.216*\text{UE} + 0.068*\text{DT}$$

From the above equation, the study found that holding loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures at zero, financial performance was estimated at .039. Additionally, when money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debenture are constant, an increase by one unit in Loans and advances would result to a 2.311 increase in financial performance. When Loans and advances, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures are

constant, an increase by one unit in money market investments would result to a 0.302 unit increase in financial performance. Holding Loans and advances, money market investments, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures constant, an increase by one unit in government securities would result to a 0.136 increase in financial performance. Holding Loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures constant, an increase by one unit in quoted equities would result to a 0.314 increase in financial performance. Holding Loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures constant, an increase by one unit in corporate bonds would result to a 0.442 increase in financial performance. Holding Loans and advances, money market investments, government securities, quoted equities, corporate bonds, unquoted equities and debentures constant, an increase by one unit in fixed and call deposits would result to a 0.939 increase in financial performance. Holding Loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits and debentures constant, an increase by one unit in unquoted equities would result to a 0.216 increase in financial performance. Holding Loans and advances, money market investments, government securities, quoted equities, corporate bonds, fixed and call deposits, unquoted equities and debentures constant, an increase by one unit in debentures would result to a 0.068 increase in financial performance

4.5 Discussion of Research Findings

Evidently the results of data analysis indicated that all the factors of asset quality had some influence on the financial performance of the cooperative societies during the period under study at least, at 5% test level. This implies that alongside the other factors discussed under the literature review, asset quality impact on the financial performance significantly.

The regression analysis found that there was a positive relationship between asset quality and financial performance of the cooperative societies. This implies that an increase in asset quality could lead to higher financial performance. Conversely a decrease in poor quality assets could lead to higher financial performance mainly due to reduction in the

provisions charged as expenses in the cooperative societies' books. My findings are consistent with those of Adeolu (2014), who in a study on asset quality and performance of commercial banks in Nigeria concluded that asset quality had a strong and positive statistical influence on bank performance. This however contradicted Khalid (2012) who reported an inverse correlation in the banks.

The asset quality variables involved in this study had different levels of statistical significance in relation to financial performance. The variable with the highest level of statistical significance was loans and advances with a coefficient of 2.311, while the factor with the least significance was debentures with a low coefficient of 0.068. The high allocation of funds to loans and advances of over 70% imply that this is the main business conducted by cooperative societies. Investments in other assets is only considered after members' demands for loans and advances are satisfied.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter covers the summary of findings, conclusion and recommendations. It further highpoints the limitations encountered in the course of the study and lastly provides proposals for future research studies.

5.2 Summary of Findings

The multiple regression analysis conducted has shown that the financial performance of cooperative societies is linked to asset quality. From the findings, correlation coefficient (r) was 0.733 and the coefficient of determination (r^2) was 0.537 suggesting that 53.7% of the financial performance of the cooperative societies can be forecasted by the asset quality factors identified in the study. Given that the correlation of 0.537 is positive it can be concluded that the correlation is statistically significant and therefore asset quality influences financial performance of the cooperative societies. Adeolu (2014) also found similar results in a study for banks in Nigeria.

The analysis demonstrates that the ratio of loans and advances to total assets was the highest during the period under review. This however showed a declining trend from 2011 through to 2015 when it stood at 73.88%. Loans and advances constituted the single largest asset investment for cooperative societies constituting above 70% investment in the asset out of the total assets. It can therefore be concluded that giving members loans and advances is regarded as the main business for the cooperative societies. The ratio of all other investments to total assets fluctuated between a low of 0% and a high of 0.0248 during the period of the study. Overall, money market investments, government securities, quoted equities, fixed and call deposits, unquoted and debentures recorded a decline in investment, while corporate bonds registered an increase in investment over the same period covered by the study. Cooperative societies thus need to identify and analyze factors that affect the quality of their asset in order to enhance their financial performance.

5.3 Conclusion

The main objective of this study was to determinate and evaluate the effect asset quality has on the financial performance of cooperative societies. Data from 2011 to 2015 of 44 of the 176 SACCOs was analyzed using multiple linear regressions method. It can be concluded from the above discussion of the findings, that asset quality is one of the significant factor impacting on the financial performance of the cooperative societies in Kenya.

From the analysis all the asset quality factors had some level of statistical significance on financial performance. A positive relationship between asset quality and financial performance of cooperative societies in Kenya was established through the analysis of the results obtained. A decrease in poor quality assets could lead to higher financial performance due to reduction in the provisions charged as expenses in the cooperative societies' books. The asset quality factor with the highest level of statistical significance was loans and advances while the factor with the least significance was debentures.

5.4 Recommendations

It has been concluded that financial performance in the cooperative societies is essentially determined by management of asset quality. Based on the findings of the study the researcher commends that superior financial performance in cooperative societies can be attained by monitoring the quality of their investments in the various assets and especially the quality of loans and advances which constitute the single largest asset in their balance sheet. Good credit management and risk management strategies should be adopted to minimize repayment defaults which result to increase in the level of non-performing assets. On the other hand cooperative societies should focus on improving their investment levels in all the categories in order to improve their financial performance. This would enable the societies take full advantage of available business opportunities as well as diversifying of their portfolio to leverage on the risk reduction and maximization of returns from their activities.

5.5 Limitations of the Study

This study was limited to analysis of investment in financial assets only which are the main sources of income for the cooperative societies. Data on other investments like

land and buildings, property and equipment was not readily available and so it was not possible to determine the extent these influence financial performance.

Another limitation was that for some years, a few of the cooperative societies had their financial statements missing. This posed a challenge because the missing data could have had a bearing on the overall financial performance of the cooperative societies.

Due to time and finance constraints that would have been involved to cover the entire population of cooperative societies in the country, this research was limited to only the cooperative societies based in Nairobi County.

Due to time, the study was limited to a duration of five years from the year 2001 to 2015. A longer duration of the study would have distorted any trends in financial performance of the cooperative societies. Besides, work and family commitments also proved destructing during the course of the research.

5.6 Suggestions for Future Research

The study sought to investigate how asset quality influences the financial performance of cooperative societies in Kenya. From the findings of this study, the researcher recommends further research in the following arears.

The scope of this research was limited to the evaluation of the 44 cooperative societies that are based in Nairobi. To generalize the findings across the country, the researcher recommends further research to include all the cooperative societies in other counties in the country.

The researcher recommends further research to incorporate macroeconomic variables such inflation, interest rates and exchange rates as the variables used in the study were not exhaustive.

The findings of this study may also vary if other financial competitor institutions like microfinance institutions were included so as to increase the population of the study and also if the period of study was increased.

The researcher also recommends further studies to include cooperative societies based in other sectors of the economy like agriculture and transport. These further studies could add great value to the performance of cooperative societies and academic literature.

REFERENCES

- Aburime, U. (2008). Determinants of Bank Profitability: Company-Level Evidence from Nigeria.
- Anjichi D.A. (2014). Effects of Asset and Liability Management on the Financial Performance of Commercial Banks in Kenya. University of Nairobi.
- Alfred, O. (2011). Corporate Governance and Financial Performance of SACCOs in LangoSubRegion, *Master's Thesis*, Makerere University.
- Berger, A., Hunter, W. & Timme, S. (1993). The Efficiency of Financial Institutions: A review and Preview of Research; Past, Present and Future. *Journal of Banking and Finance*, 17, (2&3), 221-250.
- Bhuyan S. (2007). The "People" Factor in Co-operatives: An analysis of Members' Attitudes and Behavior. *Canadian J. Agricultural Economy*, 55: 275-298.
- Cooperative Societies Act (Cap 490) 1997. Government printer.
- Cooperative Societies Act (No.14 of 2008). Government printer.
- Cooperative Societies Rules of 1969. Kenya Subsidiary legislation. Government printer.
- Cooperative Societies (Amendment) Act, 2004. Enacted by the parliament of Kenya. Government Printer.
- Donaldson, L., & Davis, J.H. (1991). *Stewardship Theory or Agency Theory: CEO governance and shareholder returns*. *Australian Journal of Management*, 16:49-5.
- Gisemba, P. N. (2010). The Relationship between Credit Risk Management Practices and Financial Performance of SACCOs in Kenya. *Unpublished MBA Dissertation*, University of Nairobi
- Jensen, K. L. & Payne J. L. (2003). Management tradeoffs of internal control and external auditor expertise. *Auditing: A Journal of Practice and Theory*, Forthcoming.

- Kenya Gazette Supplementary Acts. (2008): Special Issue. *The Cooperative Societies Act*, 2008 Cap 490 Nairobi, Kenya.
- Kilonzo (2010). *Impact of SASRA regulation on the efficiency in SACCOs in Kenya*. Retrieved from: <http://erepository.uonbi.ac.ke>
- Kioko, B. (2010): *The impact of Sasra regulations on the efficiency in Sacco's in Kenya*. An MBA project submitted to the University of Nairobi.
- Kothari, C.R. (2004). *Research methodology: Methods & Techniques*, New Delhi India: New Age international (p) limited. 2nd E.D.
- Mathuva, D. (2009). Capital Adequacy, Cost Income Ratio and the Performance of Commercial Banks: The Kenyan Scenario. *International journal of Applied Economics and Finance* 4(12), 82-93
- Mugenda, O.M. and Mugenda, A.G. (2003). *Research Methods: Quantitative And Qualitative Approaches*. Nairobi: Acts Press
- Mbaabu, A.M. (2004). Determinants of loan non performers in commercial banks in Eldoret. *Unpublished MBA project*, Moi University, Eldoret, Kenya.
- Mwangi, J. (2012). *The relationship between the level of nonperforming loans and the financial performance of commercial banks in Kenya*. Unpublished MBA project School of Business, University of Nairobi.
- Njeri, M.M. (2013). The effect of liquidity on financial performance of deposit taking Microfinance institutions in Kenya, *Unpublished MBA project*, The University of Nairobi.
- Olumbe, C. O. (2012). The relationship between internal controls and corporate Governance in commercial banks in Kenya. Unpublished thesis, University of Nairobi.
- Opler, T.C., & Titman, S. (1994). *Financial Distress and Corporate Performance*: The *Journal of Finance* 49(3), 1015-1040.
- Pandey, I.M (1999). *Financial Management*, Vikas publishing house ltd

- RehemaMvula (2013). *Common issues affecting performance of SACCO in Malawi, 8th August, 2013.*
- SACCO Society Regulation Act, 2008 published by Government Printer.
- SACCO Societies Regulatory Authority (SASRA) (2012).*SACCO Supervision Report: Deposit Taking SACCOs.* In house Publication.
- SASRA supervision Reports 2011, 2012, 2013 and 2014; published by SASRA. Available from: www.sasra.go.ke accessed on 1st August, 2016.
- World Council of Credit Unions (WOCCU) (2015) *Statistical report*, World Council of CreditUnions, Washington D.C.
- Wainaina, S. W. (2011). An evaluation of the internal control function. Unpublished thesis, University of Nairobi.
- Wanjira, T. (2010). *The relationship between nonperforming loans management practicesand financial performance of commercial banks in Kenya: An MBA project submittedto the University of Nairobi.*

APPENDICES

APPENDIX I: Data collection form

Name of Sacco					
	2015	2014	2013	2012	2011
Membership					
Net Surplus “000”					
Shareholders’ Equity “000”					
Total Assets “000”					

Investment class	Ksh “000”	Ksh“000”	Ksh“000”	Ksh“000”	Ksh“000”
Loans and advances					
Money Market Investments					
Government Securities					
Quoted Equities					
Corporate Bonds					
Fixed and call deposits					
Unquoted Equities					
Debentures					

APPENDIX II: List of licensed SACCO

No.	NAME OF SAVINGS AND CREDIT COOPERATIVE SOCIETY
1	AFYA SACCO SOCIETY LTD
2	AIRPORTS SACCO SOCIETY LTD
3	ARDHI SACCO SOCIETY LTD
4	ASILI SACCO SOCIETY LTD
5	CHAI SACCO SOCIETY LTD
6	COMOCO SACCO SOCIETY LTD
7	ELIMU SACCO SOCIETY LTD
8	FUNDILIMA SACCO SOCIETY LTD
9	HARAMBEE SACCO SOCIETY LTD
10	HAZINA SACCO SOCIETY LTD
11	JAMII SACCO SOCIETY LTD
12	KENPIPE SACCO SOCIETY LTD
13	KENVERSITY SACCO SOCIETY LTD
14	KENYA BANKERS SACCO SOCIETY LTD
15	KENYA POLICE SACCO SOCIETY LTD
16	KINGDOM SACCO SOCIETY LTD
17	MAGEREZA SACCO SOCIETY LTD
18	MAISHA BORA SACCO SOCIETY LTD
19	MILIKI SACCO SOCIETY LTD
20	MWALIMU NATIONAL SACCO SOCIETY LTD
21	MWITO SACCO SOCIETY LTD
22	NACICO SACCO SOCIETY LTD
23	NAFAKA SACCO SOCIETY LTD
24	NASSEFU SACCO SOCIETY LTD
25	NATION SACCO SOCIETY LTD
26	NYATI SACCO SOCIETY LTD
27	SAFARICOM SACCO SOCIETY LTD
28	SHERIA SACCO SOCIETY LTD
29	SHIRIKA SACCO SOCIETY LTD
30	SHOPPERS SACCO SOCIETY LTD
31	STIMA SACCO SOCIETY LTD
32	TELEPOST SACCO SOCIETY LTD
33	TEMBO SACCO SOCIETY LTD
34	UFANISI SACCO SOCIETY LTD
35	UKRISTO NA UFANISI WA ANGALICANA SACCO SOCIETY LTD
36	UKULIMA SACO SOCIETY LTD
37	UNAITAS SACCO SOCIETY LTD
38	UNITED NATIONS SACCO SOCIETY LTD
39	WANAANGA SACCO SOCIETY LTD
40	WANANDEGE SACCO SOCIETY LTD
41	WAUMINI SACCO SOCIETY LTD
42	TRANSCOM SAVINGS AND CREDIT COOPERATIVE SOCIETIES
43	KWETU SAVINGS AND CREDIT COOPERATIVE SOCIETIES
44	FARIDI SAVINGS AND CREDIT COOPERATIVE SOCIETIES
45	CHUNA SAVINGS AND CREDIT COOPERATIVE SOCIETIES

Source: Sacco Societies Regulatory Authority