THE EFFECT OF LOAN LOSS PROVISIONING ON PROFITABILITY OF DEPOSIT TAKING SACCO SOCIETIES IN NAIROBI COUNTY

BY

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DECLARATION

This research project is my original work and I declare that it has not been presented elsewhere for a master degree in any other university.

Signature……. Date ……

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D61/75359/2012

This research project has been presented for presentation with my approval as university supervisor.

Signature……. Date ……

DR JOSIAH ADUDA

SUPERVISOR

DEDICATION

I would like to dedicate my research project to the Almighty God for this far he has brought because without his grace, this may not have been possible. To my Dad and Mum; thank you very much for your great encouragement. To my lovely wife-Muthoni Kimathi whose support was immense, ensured the environment was always conducive and always there for me. To my handsome sons Mureti and Mwangi, thank you for the company you gave me while we studied together. Finally to my siblings and other family members together with my colleagues who inspired me to push on with this study.

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ABSTRACT

Weaknesses in the Kenya banking system became apparent in the late 1980s and were manifest in the relatively controlled and fragmented financial system. According to Sacco Supervision Report (2011), the licensed Deposit Taking Saccos (DTS) non-performing loans (NPLs) which comprised watch, substandard, doubtful and loss loan accounts constituted 9.6% of the gross loan portfolio. This level of NPL is very high and underlines the need for the Sacco subsector to strictly enforce the credit policies to minimize the credit risk and thus loan loss provisions. The guarantee system that Saccos apply in lending to member should further cushion the Saccos exposure to bad loans.

This study sought to fill the existing knowledge gap by answering the question; what are the effects of loan loss provisioning on profitability of Deposit taking Sacco's in Nairobi County? This study was intended to establish the effect of loan loss provisions on DTS profitability. In order to achieve this objective, the study was designed to collect and analyse the relevant data from Saccos financial statements that were licensed by SASRA from 2010 in Nairobi County. In order to establish the effect of loan loss provisioning on licensed DTS profitability, secondary data was obtained from SASRA for period of four years from 2010 to 2013. Regression model on data from a sample of 45 DTS registered in Nairobi County was used to test the variables.

The findings of the study confirmed that there exists a negative relationship between loan loss provision and profitability of deposit taking Saccos in Nairobi County. Upon examining other variables that have an impact on profitability of deposit taking Saccos, the following control variables depicted a positive relationship with profitability of deposit taking Saccos; size of the Saccos, Loan intensity and Quality of Management. The positive relationship between profitability of deposit taking Saccos and size of the Sacco shows that profitable Saccos are bid in size in terms of their asset base. Quality of management was found to have positive relationship with profitability of deposit taking Saccos. The reason may be that Saccos with skilled management team who are well remunerated are able to manage and reduce non-performing portfolio's hence reducing loan loss provision which positively influence their performance. The positive relationship between profitability of deposit taking Saccos and loan intensity is an indication that increase in amount of loans leads to profitability of deposit taking Saccos, as the study found that a unit increase in loan intensity leads to unit increase in profit of deposit taking Saccos.

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ABBREVIATIONS

CAMEL	Capital Adequacy, Asset Quality, Management capacity, Earnings, and Liquidity
DTMs	Deposit Taking Microfinance's
DTSs	Deposit Taking Sacco's
ICA	International Cooperative Alliance
LLP	Loan Loss Provision
NCBFI	Non-Commercial Banks Financial Institution
NPLs	Non Performing Loans
SACCO	Savings and Credit Co-operative
SASRA	Sacco Societies Regulatory Authority
TL	Total Loans
TA	Total Assets
PE	Personnel Expenses

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise (ICA, 2011). Financial Co-operatives or Saccos are formed by individual members with the primary purpose of pooling savings and lending to each other as per the registered Bylaws. In the early 1990s, Kenya experienced difficult economic times forcing commercial banks to demand higher operating balances for individual accounts to sustain their businesses. This saw many middle and low income persons unable to operate bank accounts. Sacco's became popular among employed persons who had been unable to maintain or operate bank accounts and they responded by introducing a Front Office Service Activity (FOSA) which offered quasi banking services at competitive rates opening a new chapter in the Sacco business (Sacco Supervision Annual Report 2010).

The importance of financial services to the rural people cannot be overemphasized. To this end, rural households particularly those of developing countries need a range of enabling and sustainable financial services in order to effectively exploit abundant resources in their areas and fulfill their productive potential as well as protecting their families and livelihood. These services may be provided through either formal institutions such as government projects and/or informal institutions including family and friends, local money lenders and rotating or accumulating savings and credit associations (Malimba and Ganesan, 2009).

Financial institutions play a crucial role in the economy, as they transfer funds from surplus units to deficit units. This is known as financial intermediation which has been used by all financial intermediaries. The popularity of financial institutions came from the deposit account they offer to surplus units in order to help their desire for saving and liquidity. They accept the risk on the loans provided in lieu of interest margin over the rate they pay on the deposits. This financial intermediation function is very important in the economy, as it improves the rate of economic growth by providing capital to entrepreneurs, which increases investment, employment, and output (Suleiman and Sharif, 2013).

1.1 1 Loan Loss Provision

Loan management is an art and not a science, and failing to apply appropriate loan policies may either be related to lack of expertise and training programs (i.e. poor management), or to fraudulent activities, such as the concentration of loans to friends, relatives, or associates. Provisions are liability accounts formed as reserves for potential or actual losses emanating from bad or substandard loans. The contra accounts are financial services that generate income and create credit risk. When provisions increase, the bank will be in a better position to withstand default on loans, and therefore has a better credit policy (Sam and Simon, 2005).

A common practice among financial institutions engaged in lending is to provision against expected losses. The provision of loan losses reserves is a mechanism used by such lenders to recognise in a timely fashion impending losses on troubled loans. The fact that a certain proportion of credits will default is acknowledged and accepted by financial

institutions. In the same way, an industrial and commercial corporation would have a reserve for expected bad debts. Further, on occasions where changes in the business cycle or local factors have an adverse effect on the loan book or default experience, such reserves or provisions can be used to mitigate the consequences on the lender (Ken and Peter, 2006).

Seppala et. al (2001) and Flannery and Ragan (2002) argue that a sound credit policy would help improve prudential oversight of asset quality, establish a set of minimum standards, and to apply a common language and methodology (assessment of risk, pricing, documentation, securities, authorization, and ethics), for the measurement and reporting of non-performing assets, loan classification and provisioning (Polizatto, 1990; popiel, 1990).

Accounting frameworks only allow provisioning for losses that have already been incurred as of a financial statement date, which does not really address the concept of "expected losses" (Mustafa et. Al 2009). Moreover, a surplus of funds relative to the appropriate level of prudent loans being granted could lead to the chasing of yields and lowering of credit perception, and hence, corresponding provisions. If provisions are not able to cover the whole spectrum of potential loan defaults once an economic downturn occurs, then, naturally, the bank will need to cover the excess loss from its capital.

Some empirical evidence has shown that in most developing economies, savings and credit cooperatives have brought millions of citizens into cohesive financial institutions which are succeeding very well in providing financial services to its members for improving their standard of living (Temu, 1999; Chirwa, 1997). Nevertheless, the

existing literature has also indicated that these farmers' associations in rural areas has been experiencing problems including diseconomies scale of credit, high interest rate on loan, and very short-term loans (Chirwa, 1997). Such problems have caused high rate of default in most developed economies.

1.1.2 Profitability of Deposit Taking SACCO'S

Bank profitability is the ability of an institution to generate revenue in excess of cost, in relation to the bank's capital base. A sound and profitable banking sector is better able to withstand negative shocks and contribute to the stability of the financial system (Athanasoglou, Brissimis and Delis, 2005).

Profitability in the form of retained earnings is typically one of the key sources of capital generation. A sound banking system is built on profitable and adequately capitalized financial institutions. Profitability is a revealing indicator of a banks competitive position in banking markets and of the quality of its management. It allows a bank to maintain a certain risk profile and provides a cushion against short-term problems. The income statement is a key source of a bank's profitability, reveals the sources of its earnings and their quantity and quality, as well as the quality of the bank's loan portfolio (Hennie and Bratanovic, 2003).

A sound banking system with good performance indicators necessitates sound risk management and regulatory frameworks. Assessing the overall performance of banks requires looking at both efficiency measures and risk-taking behavior. In many instances risk is not accounted for, and banks suffer from operational and other inefficiencies (Sam and Simon, 2005)

Profitability can be measured in several ways. The rate of return on average assets (net income/average total assets) allows for comparison of one bank to another. The return on average assets (ROAA) is the key ratio in evaluating the quality of bank management, because it tells how much profit bank management can generate with a given amount of assets. Another measure for profitability is the rate of return on average equity (net income/average equity capital). Return on average equity (ROAE) tells the bank owners how management has performed on their behalf –the amount of profit in relation to their capital contribution to the firm (Kidwell et al, 2007).

While profitability may be important for the stability of financial systems, especially in light of the continuing global crisis, high profitability may, at the same time, have adverse consequences for the wider economy, including implications for growth of savings and investment, and even pricing out of certain users from the financial system. The functions of financial institutions positively and strongly foster a country's economic growth and development, however, activities and practices of institutions that, intentionally or unintentionally, lead to involuntary exclusion of any form are likely to have the reverse effect, i.e. retard economic growth and potentially increase poverty and inequality (Beck et. al., 2007).

1.1.3 Loan Loss Provision and Profitability of D T SACCO'S

Loan-loss provisioning policy is critical in assessing financial system stability, in that it is a key contributor for fluctuations in banks' profitability and capital positions, which has a bearing on banks' supply of credit to the economy (Beatty and Liao, 2009). In principle, loan loss provision allows banks to recognize in their profit and loss statements the

estimated loss from a particular loan portfolio(s), even before the actual loss can be determined with accuracy and certainty as the events unfold and are actually written off.

The level of loan loss provisioning, should be able to reflect the beliefs of bank management on the quality of the loan portfolio that they have, indicating that provisions should be able to cover the whole spectrum of expected credit losses if they are to think of provisions as a measure of true credit risk (Dugan, 2009).

Deposit Taking Sacco societies continue to embrace the use of technology to deliver services to members. Adoption of such cost effective delivery channels to sustain Saccos growth momentum has largely contributed to the rise in profitability of these institutions. Most notable has been the connectivity to ATMs and mobile delivery channels by a majority of the Deposit Taking Saccos. As at December 2012, 139 licensed Saccos had connected to the Sacco Link network while several others hooked on the Pesa point ATM network (Sacco Supervision Annual Report 2012).

From an accounting perspective, loans should be recognized as being impaired, and necessary provisions should be made, if it is likely that the bank will not be able to collect all the amounts due – principal and interest – according to the contractual terms of the loan agreement(s). Sometimes banks may be reluctant to account for the whole amount of incurred losses because of the negative effect of provisions on profits and on shareholders' dividends. In other cases, if provisions are tax-deductible, banks have an incentive to overstate their loss provisions and to smooth profits over time in order to reduce the amount of tax liability (Laurin and Majnoni, 2003).

1.1.4 Deposit Taking Sacco's in Kenya

Sacco Societies form a significant part of the larger Cooperative sector in Kenya. Cooperatives can broadly be categorized as Financial Co-operatives (Savings & Credit Co-operative Societies-Saccos) and Non-financial Co-operatives (includes produce marketing, housing, transport and investment co-operatives). Sacco's further comprise both deposit and non-deposit taking. Deposit Taking Sacco (DTS) is that Sacco operating a front office savings activity (FOSA). A FOSA activity is a quasi-banking activity undertaken by licensed Sacco's (Sacco Supervision Annual Report 2010).

FOSA operating Sacco societies provide a wide array of financial products including demand savings account, ATM and custodial services. Thus members enjoy quasi banking services unlike in traditional Sacco societies whose services are limited to non-withdrawable or share savings and credit to member. The ability of the FOSA Saccos to offer many and flexible financial services has propelled growth such that these category of Saccos account for over three quarters of the sub-sector's assets and deposits.

The Sacco subsector had Ksh.293.5 billion in total assets of which 75% comprised of loans and advances. The assets were funded by member deposit and equity. DTSs assets totaled Kshs.223.5 billion with loans and advances taking the biggest chunk of Kshs167.6 billion or 75% of total assets. The licensed DTSs had gross NPLs of Kshs.11.5billion representing a 9.6% of the gross loan portfolio. NPLs net of provisions to core capital ratio remains very high relative to the banking or DTMs reflecting inadequate provisioning for loan losses (Sacco Supervision Annual Report 2012).

The development of the Sacco Societies to offer banking like services and expansion of the membership definition has brought additional risks to a hitherto conservative and closed bond Sacco Industry. This increased and diverse membership driven by the bank like products has equally increased the systemic importance of deposit taking Sacco's. The need to improve the financial soundness of the Sacco subsector explains the policy objective of the prudential regulatory framework that SASRA is mandated to implement. The licensed deposit taking saccos are required to observe minimum operational regulations and prudential standards in the conduct of Sacco business. SASRA adopted CAMELS evaluating framework to measure and monitor the financial soundness of the deposit taking Sacco societies (Sacco Supervision Annual Report 2012).

1.2 Research Problem

Weaknesses in the Kenya banking system became apparent in the late 1980s and were manifest in the relatively controlled and fragmented financial system. Differences in regulations governing banking and non-bank financial intermediaries, lack of autonomy and weak supervisory capacities to carry out the Central Bank's surveillance role and enforce banking regulations, inappropriate government policies which contributed to an accumulation of nonperforming loans, and non-compliance by financial institutions to regulatory requirements of the 1989 Banking Act among others posed a challenge to the Kenya banking system. Many banks that collapsed in the late 1990's were as a result of the poor management of credit risks which was portrayed in the high levels of nonperforming loans (Central Bank Supervision Report, 2005).

According to Sacco Supervision Report (2011), the DTS non-performing loans (NPLs) which comprised substandard, doubtful and loss loan accounts constitute 9.6% of the gross loan portfolio. This level of NPL is very high and underlines the need for the Sacco subsector to strictly enforce the credit policies to minimize the credit risk and thus loan loss provisions. The guarantee system that Saccos apply in lending to member should further cushion the Saccos.

Oretha (2012) carried a study on the relationship between credit risk management practices and financial performance of commercial banks in Liberia where he found out those banks incurred losses because they lacked credit risk management policies.

Locally, a study by Okello (2010) on risk management practices by Saccos in Kenya identified liquidity as a major risk that affects cash flows in many societies. Wamalwa (2012) studied the effects of regulation on financial performance of Sacco's operating FOSA's in Kenya. He concluded that governance, prudential standards and reporting standards impacted positively on financial performance of Sacco's operating FOSA's in Kenya.

Wambugu; Gisemba (2010) surveyed credit risk management practices in Sacco's where they found that majority of societies had formulated credit policies for managing loan risks. Odhiambo (2012) studied relationship between working capital management and performance of deposit taking Sacco's where he concludes that effective working capital management leads to better performance. Most other local studies on Sacco's have concentrated on strategic change on performance of DTS (Mutua, 2009; Biomndo, 2012; Kulei, 2013). While a few have looked at Marketing strategies (Olunja, 2013). No study

has been done on the effects of loan loss provisioning on profitability of deposit taking Sacco's under the new regulatory regime of DTS in Kenya. This study therefore sought to fill the existing knowledge gap by answering the question, what are the effects of loan loss provisioning on profitability of Deposit taking Sacco's in Nairobi County?

1.3 Objective of the Study

To establish the effect of loan loss provisions on DTS profitability.

1.4 Value of the Study

This study will be of great importance to Deposit taking Sacco's in Kenya as they adopt to a new regulatory regime that raises the bar in the way Sacco have done business in the last couple of decades. This study will help them understand the importance of managing risk in a fast changing financial sub-sector.

The Government of Kenya through the regulator-SASRA may find this study valuable in policy formulation and changes in legal platform as they continue enforcing the prudential's standards to streamline and regulate DTS. This is in addition to monitoring any adverse or otherwise effect it may have on licensed DTS.

This study will form a basis for further research by researchers and scholars in this new concept of deposit taking Sacco's framework. Unlike commercial banks model which has attracted massive interest and research, this is an area of growing interest as they will find this literature an important foundation of future study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This Chapter presents a summary of literature review from previous scholars who did a research related to the current study. It provides theoretical and empirical literature on which this study is grounded. It will also provide a conceptual framework of the study.

2.2 Review of theories

2.2.1 Portfolio Theory

Harry Markowitz (1952) introduced Portfolio Theory also known as Modern Portfolio Theory in his paper 'Portfolio Selection' which was published in the Journal of Finance in 1952. The theory suggests an hypothesis on the basis of which, expected return on a portfolio for a given amount of portfolio risk is attempted to be maximized or alternately the risk on a given level of expected return is attempted to be minimized. This is done so by choosing the quantities of various securities cautiously taking mainly into consideration the way in which the price of each security changes in comparison to that of every other security in the portfolio, rather than choosing securities individually. In other words, the theory uses mathematical models to construct an ideal portfolio for an investor that gives maximum return depending on his risk appetite by taking into consideration the relationship between risk and return. According to the theory, each security has its own risks and that a portfolio of diverse securities shall be of lower risk than a single security portfolio. Simply put, the theory emphasizes on the importance of diversifying to reduce risk.

James Tobin (1958) added to the Portfolio Theory by introducing the Efficient Frontier. According to the theory, every possible combination of securities can be plotted on a graph comprising of the standard deviation of the securities and their expected returns on its two axes. The collection of all such portfolios on the risk-return space defines an area, which is bordered by an upward sloping line. This line is termed as the efficient frontier. The collection of Portfolios which fall on the efficient frontier are the efficient or optimum portfolios that have the lowest amount of risk for a given amount of return or alternately the highest level of return for a given level of risk.

The Efficient Market Hypothesis (Fama, 1965) is the basis of all financial models. He defined market a place where large numbers of rational and risk averse investors trade actively to maximize profits and minimize risks on the basis of the same information which is freely available to all the investors at the same time.

The Portfolio Theory broadly explains the relationship between risk and reward and has laid the foundation for management of portfolios as it is done today. It emphasizes on the significance of the relationship between securities and diversification to create optimal portfolios and reduce risk. It derives two main conclusions which is of significance even today. The first being that volatility is most dangerous if the time horizon is short and the second being that diversification reduces risk as the risk value of a diversified portfolio is less than the average risk of each of its component securities.

2.2.2 The Capital Asset Pricing Model Theory

The Capital Asset Pricing model (CAPM) extends from the portfolio theory that is used to determine the required rate of return for a risky asset. CAPM was developed by

William Sharpe (1964) and John Lintner (1965). It takes into account the asset's sensitivity to non-diversifiable risk (also known as systematic risk), as well as the expected return of the market and the expected return of a theoretical risk free asset. Using beta as the measure of risk, the CAPM then redefines the expected return in terms of risk-free rate and the expected risk premium.

The CAPM builds on the model of portfolio choice developed by Harry Markowitz (1959). In Markowitz's model, an investor selects a portfolio at time *t* _ 1 that produces a stochastic return at *t*. The model assumes investors are risk averse and, when choosing among portfolios, they care only about the mean and variance of their one-period investment return. As a result, investors choose "meanvariance- efficient" portfolios, in the sense that the portfolios 1) minimize the variance of portfolio return, given expected return, and 2) maximize expected return, given variance. Thus, the Markowitz approach is often called a "meanvariance model."

The portfolio model provides an algebraic condition on asset weights in meanvariance-efficient portfolios. The CAPM turns this algebraic statement into a testable prediction about the relation between risk and expected return by identifying a portfolio that must be efficient if asset prices are to clear the market of all assets. Sharpe (1964) and Lintner (1965) add two key assumptions to the Markowitz model to identify a portfolio that must be mean-variance-efficient. The first assumption is *complete agreement*: given market clearing asset prices at *t* _ 1, investors agree on the joint distribution of asset returns from *t* _ 1 to *t*. And this distribution is the true one—that is, it is the distribution from which the returns we use to test the model are drawn. The second assumption is that there is

borrowing and lending at a risk-free rate, which is the same for all investors and does not depend on the amount borrowed or lent (Eugene F. Fama and Kenneth R. French, 2004)

2.2.3 Arbitrage Pricing Model Theory

An arbitrage opportunity is an investment that has some probability of yielding positive return yet it doesn't require net outflow of cash and carries no chance of losing money for example when two assets offer same returns, but trade at different prices. The Arbitrage pricing theory (APT) was developed by Ross (1976) who explored what asset prices should be in order to eliminate arbitrage opportunities since prices change when arbitrage exists. APT is an equilibrium pricing model; it reaches conclusions about what determines equilibrium rates of return of capital assets. According to this theory, a number of independent macro-economic variables referred to as risk factors influence the expected return of a stock or portfolio (Ross, 1976). Arbitrageurs use APT to identify and profit from mispriced securities (Levy and Post, 2005).

Ross argues that if equilibrium prices offer no arbitrage opportunities over static portfolios of the assets, then the expected returns on the assets are approximately linearly related to the factor loadings. (The factor loadings, or betas, are proportional to the returns' covariances with the factors.) Ross' (1976a) heuristic argument for the theory is based on the preclusion of arbitrage. Ross' formal proof shows that the linear pricing relation is a necessary condition for equilibrium in a market where agents maximize certain types of utility.

The APT is a substitute for the Capital Asset Pricing Model (CAPM) in that both assert a linear relation between assets' expected returns and their covariance with other random

variables. (In the CAPM, the covariance is with the market portfolio's return.) The covariance is interpreted as a measure of risk that investors cannot avoid by diversification. The slope coefficient in the linear relation between the expected returns and the covariance is interpreted as a risk premium. Such a relation is closely tied to mean-variance efficiency.

2.2.4 Transaction Cost Theory

Transaction cost economics (TCE) was originally introduced by Coase (1937) who tried to explain the existence of firms. Williamson (1975; 1985) then developed the idea further and elaborated the dependency of firms on outside partners - the term 'partners' here comprises the business relationship between service supplier and client - leading to disadvantages due to transaction costs, opportunism and uncertainty.

Transaction costs as "the costs of negotiating, monitoring, and enforcing the exchanges between parties to a transaction" measure the efficiency of a transaction (Bowen and Jones 1986, p. 430). Identifying the costs of coordinating economic activities, TCE is based on two behavioral assumptions: one is bounded rationality, the other one is opportunism.

Owing to those two conditions, transaction costs actually evolve because assets, investment and other process features are transaction-specific. Thus, service provider and customer, as the transaction partners, become dependent on each other. The actors face bounded rationality because information is scarce and costly and the capacity for information processing is always limited. Bounded rationality is based on the fact that it

is impossible to foresee all potential contingencies of a situation, especially those arising from opportunism; therefore there cannot be a complete contract prior to commitment that covers all contingencies. Opportunism is the reason that contracts exist and cannot be left incomplete; the idea that unforeseen contingencies could be met out of cooperation and mutual benevolence does not match reality and takes no account of the phenomenon of opportunism (Williamson 1985; Noteboom 1992).

TCE focuses on problems of information or rather information asymmetry which occur due to the dependency on a business transaction partner (Williamson 1975). "The basic idea in TCE is that in economic relations there are risks of dependence, which can be difficult to control for lack of reliable information on competencies, intentions and performance" This phenomenon is of particularly high relevance in supplier-customer service transactions: the service operator, for instance, faces the risk that the customer lacks the competency to co-perform during the service production. In order to control relational risk within the hierarchy of a firm, activities have to be integrated within the firm, and to an even greater extent if dependency and uncertainty are high (Noteboom 1992; Noteboom 1999).

2.3 Determinants of Non-Performing loans

2.3.1 Bad luck hypothesis

Under the ‘bad luck’ hypothesis, external events precipitate an increase in problem loans for the bank. After the loans become past due or non-accruing, the bank begins to expend additional managerial effort and expense dealing with these problem loans. Most of these costs, especially the costs associated with loan workout and default, are incurred well

after the increase in problem loans. Thus, under the bad luck hypothesis, we expect increases in nonperforming loans to Granger-cause (i.e., temporally preceded) decreases in measured cost efficiency. Importantly, under the bad luck hypothesis, the extra expenses associated with problem loans create the appearance, but not necessarily the reality, of lower cost efficiency. Faced with an exogenous increase in nonperforming loans, even the most cost efficient banks have to purchase the additional inputs necessary to administer these problem credits (Berger and DeYoung, 1997).

The bad management hypothesis considers low efficiency as a signal of poor managerial performance, which also affects loan granting behavior. Indeed poor managers do not adequately monitor loan portfolio management, owing to poor loan evaluation skills or to inadequate allocation of resources to loan monitoring. This results in a greater volume of non-performing loans. Therefore, this hypothesis predicts that reduced efficiency exerts a positive influence on non-performing loans (Jiří Podpiera and Laurent Weill, 2007).

2.3.2 Skimping hypothesis

This is hypothesis was proposed by Berger and DeYoung (1997) suggests a possible positive causality between high cost efficiency and NPLs. In particular, they suggest that high cost efficiency may reflect little resources allocated to monitor lending risks and therefore may result in higher NPLs in the future. This hypothesis is consistent with the findings of Rossi, Schwaiger, and Winkler (2005) who looked at a sample of 278 banks from nine transition countries from 1995 to 2002.

Bank managers face a trade-off between short-term operating costs and long-term non-performing loans. Therefore, if they strongly weight short-term profits they may be motivated to reduce short term operating costs by reducing the resources allocated to loan monitoring, even if this leads to a greater volume of non-performing loans in the future. Skimping behavior therefore gives the impression that banks are cost-efficient in the short term, because fewer inputs produce the same quantity of outputs, while non-performing loans are about to burgeon. Under this hypothesis, then, greater cost efficiency should increase the volume of non-performing loans (Jiří Podpiera and Laurent Weill, 2007).

2.3.3 Moral hazard

The 'moral hazard' hypothesis is the classical problem of excessive risk-taking when another party is bearing part of the risk and cannot easily charge for or prevent that risk-taking. Under this hypothesis, banks with relatively low capital respond to moral hazard incentives by increasing the riskiness of its loan portfolio, which results in higher nonperforming loans on average in the future. Thus, under the moral hazard hypothesis, we expect that low financial capital will Granger-cause high nonperforming loans. Moral hazard gives an alternative explanation for nonperforming loans, so the effects of measured cost efficiency on nonperforming loans could be biased if the potential effects of capital were neglected (Berger and DeYoung, 1997).

Keeton and Morris (1987) indeed showed that excess loss rates were prominent among banks that had relatively low equity-to-assets ratio. More generally, Keeton and Morris

(1987) argued that banks that tend to take more risks, including in the form of excess lending eventually absorbed higher losses.

2.3.4 Macroeconomic factors

There is significant empirical evidence regarding the anti-cyclical behavior of the NPLs. The general explanation is that higher real GDP growth usually translates into more income which improves the debt servicing capacity of borrowers. Conversely, when there is a slowdown in the economy the level of NPLs is likely to increase as unemployment rises and borrowers face greater difficulties to repay their debt (Salas and Suarina, 2002; Rajan and Dhal, 2003; Fofack, 2005; and Jimenez and Saurina, 2005).

Other macroeconomic variables, which affect banks' asset quality, include the exchange rate, interest rate, and inflation. In this regard, exchange rate depreciation might have a negative impact on asset quality, particularly in countries with a large amount of lending in foreign currency to un-hedged borrowers, and interest rate hikes affect the ability to service the debt, particularly in case of floating rate loans (Louzis, Vouldis and Metaxas, 2010). The impact of inflation, however, may be ambiguous. On one hand, higher inflation can make debt servicing easier by reducing the real value of outstanding loan, but on the other hand, it can also reduce the borrowers' real income when wages are sticky.

2.4 Review of Empirical Studies

Cooper, Jackson and Patterson (2003) carried a study on the determinants of profitability in Philiphines banks which show that changes in credit risk may reflect changes in the

health of a bank's loan portfolio, which may affect the performance of the institution. Duca and McLaughlin (1990), conclude that variations in bank profitability are largely attributable to variations in credit risk, since increased exposure to credit risk is normally associated with decreased firm profitability. In this direction, Miller and Noulas (1997) suggest that the more financial institutions being more exposed to high risk loans increases the accumulation of unpaid loans and decreases the profitability. This suggest that decline in loan loss provisions are in many instances the primary catalyst for increases in profit margins. Furthermore, Thakor (1987) also suggests that the level of loan loss provisions is an indication of a bank's asset quality and signals changes in the future performance (Fadzlan and Royfaizal, 2008).

Fadzlan and Parman (2009) in their paper on the specialization and other determinants of non-commercial banks financial institutions profitability in Malaysia revealed that LLP/TL had a negative relationship with bank profitability and was statistically significant indicating that NCBFIs with higher proportion of riskier loans tend to exhibit lower profitability levels. The finding is consistent with earlier studies by among others, Kwan and Eisenbeis (1995), Resti (1997), and Barr*et al.*(2002) which have found negative relationship between problem loans and bank efficiency. Furthermore, most research conducted on explaining the causes of bank or thrift industry failures have found a large proportion of non-performing loans at failing institutions prior to failure (Dermiguc-Kunt, 1989; Whalen, 1991; Barr and Siems, 1994). Berger and Humphrey (1992), Barr and Siems (1994), and Wheelock and Wilson (1995) suggest that banks approaching failure tend to have low cost efficiency and experiencing high ratios of problem loans and that failing banks tend to be located far from the best practice

frontiers. Serious banking problems have arisen from the failure of financial institutions to recognize impaired assets and create reserves for writing off these assets.

Podder and Mamun (2004) carried out a study on Loan loss provisioning system in Bangladesh banking where the findings were that classification of loans does not ensure the improvement of the loan default situation, since classification does not ensure collection. What classification does is make a provision as per the Bangladesh Bank requirement and as such gets a tax exemption. The amount of provision is set aside from the profit before provision and taxes to write off the bad loan. Another reality is banks have to incur a huge amount of legal fees and this expense also reduces the net income of the banks and as such reduces the wealth of the banks' shareholders. In this process on a timely basis older classified bad loans may be written off first. If the actual provision kept is not sufficient to write off, then provision can be raised from the current year's profit by reducing that profit.

Ben Naceur and Goaied (2008) examine the impact of bank characteristics, financial structure, and macroeconomic conditions on Tunisian banks' net-interest margin and profitability during the period of 1980 to 2000. They suggest that banks that hold a relatively high amount of capital and higher overhead expenses tend to exhibit higher net-interest margin and profitability levels, while size is negatively related to bank profitability. During the period under study, they find that stock market development has positive impact on banks' profitability. The empirical findings suggest that private banks are relatively more profitable than their state owned counterparts. The results suggest that macroeconomic conditions have no significant impact on Tunisian banks' profitability.

Naceur (2003) evaluates the influence of bank's characteristics, financial structure and macroeconomic indicators on bank's net interest margins and profitability for a sample of 10 deposit banks from Tunisia, between 1980 and 2000. The results of the study show that a high net interest margin and profitability are associated to the banks that possess a relatively high amount of capital and with large overheads. Considering the effect of the macroeconomic indicators, the paper shows that the inflation rate and the economic growth rate have an impact upon bank's interest margins and profitability. Regarding the impact of financial structure indicators, the results of the empirical analysis show that the stock market development has a positive effect upon the bank profitability.

Sufian (2010) analyzes the determinants of the bank profitability in Korea between 1994 and 2008, and the results of his study show that the banks presenting a lower credit risk have the tendency to register higher profitability levels. Regarding the impact of the macroeconomic and banking industry specific factors, the study shows that the inflation has a significant pro-cyclical impact, the GDP has a counter-cyclical influence, and the banking sector concentration has a negative impact upon the profitability of the banks, as well.

Dietrich and Wanzenried (2010) carried out on the main determinants of profitability for the Swiss banking market after the financial crises. The empirical analysis performed on a sample of 453 commercial banks in Switzerland, from 1999 to 2008, highlights the existence of some significant differences in the banks' profitability. The results of the study show, on the one hand, that the banks which are more capitalized are also more profitable. On the other hand, regarding the crisis impact, the authors bring out that the

cost-income ratio had a significant impact on the return on assets only for the period before the crisis, while during the crisis a negative impact on the profitability was exerted by the loan loss provisions relative to total loans.

Angela and Adina (2013) studied the determinants of bank profitability in 15 commercial banks in Romania where the survey concluded that the ratio of nonperforming loans, the management quality and the ratio of liquid assets to total assets has a significant impact on the banking profitability. Other factors, respectively the ratio of total equity to total asset, the ratio of loans to total assets, funding costs and income diversification of bank did not have an important effect upon the profitability. The results of the study is in line with the ones obtained in other studies that focused on banking profitability. Based on the obtained results, it was considered Romanian banks can improve their profitability, especially by increasing the quality of the assets, improving the quality of the management, increasing the non-interest income and increasing the bank dimension.

Ben Naceur and Omran (2008) examine the influence of bank regulations, concentration, financial and institutional development on Middle East and North Africa (MENA) countries commercial banks margin and profitability during the period 1989–2005. They find that bank specific characteristics, in particular bank capitalization and credit risk, have positive and significant impact on banks' net interest margin, cost efficiency, and profitability. On the other hand, macroeconomic and financial development indicators have no significant impact on bank performance.

Abreu and Mendes (2002) in their study on commercial bank interest margins and profitability in EU countries found that credit risk, measured by loans to assets ratio, positively influenced the profitability of banks in Portugal, Spain, France and Germany. On the other hand, Bourke (1989) and Molyneux and Thornton (1992), among others, find a negative and significant relationship between the two-risk and profitability. Possibly, banks exposed to riskier loans have also accumulated higher volumes of unpaid loans, which might adversely affect profits.

Anglomkliew et al. (2009) noted that an inadequate loan grading scheme could lead to distortions in a bank's balance sheet and an overstatement of capital and capital ratios. In a similar vein, Goldstein (1998), also noted that if loan classification is dependent only on the loan's payment status, without regard to the borrower's creditworthiness or to the market value of collateral, then the delay in recognizing bad loans can be considerable. And if non-performing loans are systematically understated, loan-loss provisions are apt to be too low, and bank net income and capital will be systematically overstated.

Vong and Chan (2005) conducted a research on determinants of banking profitability in which the bank-specific variables examined, with a sample of five different banks in Macao. He found that a higher loan-to-total assets ratio may not necessarily lead to a higher level of profits. Due to the competitive credit market condition and the successive cuts in interest rate, the interest spread, i.e. the important determinant of profitability, becomes narrower. A lower spread together with a higher loan-loss lead to lower profitability. Therefore, instead of loan size, it is the spread and the quality of the loan that matter.

2.5 Summary of Literature Review

The stability and healthy of any financial institution depends on the quality of its loan asset. The core business of deposit taking Sacco's is that of lending, therefore the biggest asset item in their balance sheets is Loans and advances to members. With the changing regulatory regime geared towards protection of public funds and sustainability of DTS financial institutions, there need for DTS to employ prudential standards to remain competitive and profitable in the financial sector.

Just like Commercial banks and MFIs who handle deposits from the public, the DTS have a duty to promote quality of loan asset through careful analysis and adequate provisions to cater for the uncertain periods in future. This will help the society to withstand economic shocks and continue to generate stable cash flows.

The aspect of loan loss provision by DTS goes hand in hand to complying with statutory requirements for loan loss provisioning and classification. This requires DTS to have qualified management team who are well versed with risk management so that they are in a position to carry out proper evaluation and appraisal of loans they are advancing to members and customers.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines how the study was carried out. The following components were discussed: research design, population, sample size, data collection methods and data analysis. Research methodology is said to be important because it presents a way of solving a research problem (Kothari, 2004)

3.2 Research Design

Research design can be defined as the structure of research -- it is the "glue" that holds all of the elements in a research project together. This study adopts descriptive design. Descriptive research portrays accurately the characteristic of a population, individual, situation or a group. Descriptive research design enables a researcher to generalize the findings of to an entire population. In this study the findings from Nairobi county deposit taking Sacco's can be generalized to all deposit taking Sacco's in Kenya.

3.3 Population of the study

Brink (1996) defines a population as the entire group of people that is of interest to the researcher. The population of interest was all the licensed deposit taking SACCOs in Nairobi County as at 31st December 2013 whose number was forty five. The respondent for the study was SASRA which has data for all licensed deposit taking SACCOs. The study incorporated data for the period 2010 to 2013.

3.4 Data Collection Procedure

Secondary data was collected from published financial statements from SASRA which then was analysed in excel sheet to extract data relevant to this study. Clarifications from respondents of the financial statement were made where clarity of information was imperative.

3.5 Data Analysis

Data collected was edited for completeness and consistency. Quantitative data was analysed by the use of Statistical Package for Social Science (SPSS). Inferential statistics was used to establish the relationship between loan loss provision and profitability of deposit taking Sacco's. The study used regression model to tests the variable. The regression model was to provide a statistical technique for estimating the relationship among variables.

For the purpose of the regression model, profitability was the dependent variable measured by ROA (Profit after tax divided by total assets). ROA reflects the management ability to utilize the bank's financial and real investment resources to generate profits (Hassan and Bashir 2003).

The independent variables included in the regressions were LLP/TL which is a measure of Sacco risk calculated as the ratio of total loan loss provisions divided by total loans; LOGTA is a proxy measure of size, calculated as a natural logarithm of total Sacco assets; TL/TA is used as a proxy measure of loans intensity, calculated as total loans divided by total assets and PE/TA is a proxy measure for management quality, calculated as personnel expenses divided by total assets.

To test the effect of loan loss provision on profitability DTS and we estimate a linear regression model in the following form:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + e$$

where;

Y = ROA

β_0 is the y axis intercept; the constant

β_1, β_2, β_3, β_4 are the coefficients of independent variables loan loss provision; size, total loans and personnel expenses.

X**1**=represents independent variable-loan loss provision

X**2**=represents independent variable-size of Sacco

X**3**=represents independent variable-total loans

X**4**=represents independent variable-personnel expenses

e=error term

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSION

4.1 Introduction

This chapter presents the research findings to establish the effect of loan loss provisions on DTS profitability. The study was conducted on 45 Saccos licensed by SASRA where secondary data from the period of 2010 to 2013 was used in the analysis. Regression analysis was used in analyzing data in order to establish the effect of loan loss provisions on DTS profitability.

4.2 Research Findings

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 20) to code, enter and compute the measurements of the multiple regressions

4.2.1 Regression Analysis for 2010

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.886[a]	.785	.752	.0632

Adjusted R squared is coefficient of determination which tell us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.752 an indication that there was variation of 75.2% on profitability of Deposit taking Sacco's due to changes in loan loss provision, size of the Saccos, loan intensity and quality of management at 95% confidence interval. This shows that 75.2% changes in profitability of Deposit taking Sacco's could be accounted for by loan loss provision, size of the Saccos, loan intensity and quality of management. R is the correlation coefficient which shows the relationship

between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.886.

Table 2: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	3.327	.534		6.227	.000
	Loan Loss Provision	-.118	.077	-.164	-1.519	.003
	Size	.198	.099	.237	2.011	.048
	Loan Intensity	.271	.130	278	2.083	.040
	Quality Of Management	.035	.124	.036	.285	.00 6

The established regression equation for year 2010 was

$Y = 3.327 - 0.118X_1 + 0.198\ X_2 + 0.271X_3 + 0.035X_4$

From the above regression equation it was revealed that holding loan loss provision, size of the Saccos, loan intensity and quality of management to a constant zero , profitability of Deposit taking Sacco's would stand at 3.327 , a unit increase in loan loss provision would lead to decrease in profitability of Deposit taking Sacco's by a factors of 0.118, a unit increase in size of Saccos would lead to increase in profitability of Deposit taking Sacco's by factors of 0.198 , a unit increase in loan intensity would lead to increase in profitability of Deposit taking Sacco's by a factor of 0.271 and further unit increase in quality of management would lead to increase in profitability of Deposit taking Sacco's by a factors of 0.035. All the p-value were found to be less than 0.05 an indication that loan loss provision, size of the Saccos, loan intensity and quality of management significantly influence the profitability of Deposit taking Sacco's.

4.2.2 Regression Analysis for 2011

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.832[a]	.692	.653	.0583

Adjusted R squared is coefficient of determination which tell us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.653 an indication that there was variation of 65.3% on profitability of Deposit taking Sacco's due to changes in loan loss provision, size of the Saccos, loan intensity and quality of management at 95% confidence interval. This shows that 65.3% changes in profitability of Deposit taking Sacco's could be accounted for by loan loss provision, size of the Saccos, loan intensity and quality of management. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.832.

Table 4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	2.809	.519		5.414	.000
	Loan Loss Provision	-.012	.049	-.026	-.256	.001
	Size	.016	.099	.024	.166	.008
	Loan Intensity	.102	.078	.164	1.301	.010
	Quality Of Management	.088	.104	.104	.844	.001

The established regression equation for year 2011 was

$Y = 2.809 - 0.012\ X_1 + 0.016\ X_2 + 0.102\ X_3 + 0.088\ X_4$

From the above regression equation it was revealed that holding loan loss provision, size of the Saccos, loan intensity and quality of management to a constant zero , profitability of Deposit taking Sacco's would stand at 2.809 , a unit increase in loan loss provision

would lead to decrease in profitability of Deposit taking Sacco's by a factors of 0.012, a unit increase in size of Saccos would lead to increase in profitability of Deposit taking Sacco's by factors of 0.016 , a unit increase in loan intensity would lead to increase in profitability of Deposit taking Sacco's by a factor of 0.102 and further unit increase in quality of management would lead to increase in profitability of Deposit taking Sacco's by a factors of 0.088. All the p-value were found to be less than 0.05 an indication that loan loss provision, size of the Saccos, loan intensity and quality of management significantly influence the profitability of Deposit taking Sacco's.

4.2.3 Regression Analysis for 2012

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.857[a]	.734	.726	.0805

Adjusted R squared is coefficient of determination which tell us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.726 an indication that there was variation of 72.6% on profitability of Deposit taking Sacco's due to changes in loan loss provision, size of the Saccos, loan intensity and quality of management at 95% confidence interval. This shows that 72.6% changes in profitability of Deposit taking Sacco's could be accounted for by loan loss provision, size of the Saccos, loan intensity and quality of management. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.857.

Table 6: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	2.385	.408		3.944	.048
	Loan Loss Provision	-.209	.089	-.222	-2.347	.021
	Size	.069	.095	.080	.732	.006
	Loan Intensity	.134	.097	.135	1.375	.015
	Quality Of Management	.270	.091	.269	2.951	.004

The established regression equation for year 2012 was

$Y = 2.285 - 0.209\ X_1 + 0.069\ X_2 + 0.134\ X_3 + 0.270\ X_4$

From the above regression equation it was revealed that holding loan loss provision, size of the Saccos, loan intensity and quality of management to a constant zero , profitability of Deposit taking Sacco's would stand at 2.385 , a unit increase in loan loss provision would lead to decrease in profitability of Deposit taking Sacco's by a factors of 0.209, a unit increase in size of Saccos would lead to increase in profitability of Deposit taking Sacco's by factors of 0.069 , a unit increase in loan intensity would lead to increase in profitability of Deposit taking Sacco's by a factor of 0.134 and further unit increase in quality of management would lead to increase in profitability of Deposit taking Sacco's by a factors of 0.270. All the p-value were found to be less than 0.05 an indication that loan loss provision, size of the Saccos, loan intensity and quality of management significantly influence the profitability of Deposit taking Sacco's.

4.2.4 Regression Analysis for 2013

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.925[a]	.855	.815	.1535

Adjusted R squared is coefficient of determination which tell us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.815 an indication that there was variation of 81.5% on profitability of Deposit taking Sacco's due to changes in loan loss provision, size of the Saccos, loan intensity and quality of management at 95% confidence interval. This shows that 81.5% changes in profitability of Deposit taking Sacco's could be accounted for by loan loss provision, size of the Saccos, loan intensity and quality of management. R is the correlation coefficient which shows the relationship between the study variable, from the findings shown in the table above there was a strong positive relationship between the study variable as shown by 0.925.

Table 8: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	1.614	.394		4.098	.000
	Loan Loss Provision	-.263	.067	-.385	-3.911	.000
	Size	.111	.056	.207	1.991	.050
	Loan Intensity	.233	.079	.317	2.940	.004
	Quality Of Management	.010	.058	.016	.169	.866

The established regression equation for year 2013 was

$Y = 1.614 - 0.263\ X_1 + 0.111\ X_2 + 0.233\ X_3 + 0.010\ X_4$

From the above regression equation it was revealed that holding loan loss provision, size of the Saccos, loan intensity and quality of management to a constant zero , profitability of Deposit taking Sacco's would stand at 1.614 , a unit increase in loan loss provision would lead to decrease in profitability of Deposit taking Sacco's by a factors of 0.263, a unit increase in size of Saccos would lead to increase in profitability of Deposit taking Sacco's by factors of 0.111 , a unit increase in loan intensity would lead to increase in profitability of Deposit taking Sacco's by a factor of 0.133 and further unit increase in quality of management would lead to increase in profitability of Deposit taking Sacco's by a factors of 0.010. All the p-value were found to be less than 0.05 an indication that loan loss provision, size of the Saccos, loan intensity and quality of management significantly influence the profitability of Deposit taking Sacco's.

4.3 Summary and Interpretation of Findings

From the finding of the Adjusted R squared, the study revealed that changes in profitability of Deposit taking Sacco's could be accounted to changes in loan loss provision, size of the Saccos, loan intensity and quality of management. The study also found that there was strong positive relationship between profitability of Deposit taking Sacco's and loan loss provision, size of the Saccos, loan intensity and quality of management.

The established regression equation for year 2010 was

$Y = 3.327 - 0.118X_1 + 0.198 X_2 + 0.271X_3 + 0.035X_4$

The established regression equation for year 2011 was

$Y = 2.809 - 0.012 X_1 + 0.016 X_2 + 0.102 X_3 + 0.088 X_4$

The established regression equation for year 2012 was

$Y = 2.285 - 0.209 X_1 + 0.069 X_2 + 0.134 X_3 + 0.270 X_4$

The established regression equation for year 2013 was

$Y = 1.614 - 0.263 X_1 + 0.111 X_2 + 0.233 X_3 + 0.010 X_4$

From the above regression equation it was revealed that a unit increase in loan loss provision would lead to decrease in profitability of Deposit taking Sacco's. The study further revealed that a unit increase in size of Saccos, loan intensity and quality of management would lead would lead to increase in profitability of Deposit taking Saccos. This shows that there was positive relationship between profitability of Deposit taking Saccos and size of Saccos, loan intensity and quality of management. The study also revealed that there was negative relationship between profitability of Deposit taking Saccos and loan loss provision. All the p-value were found to be less than 0.05 an indication that loan loss provision, size of the Saccos, loan intensity and quality of management significantly influence the profitability of Deposit taking Sacco's.

The finding of this study concur with the finding of Cooper, Jackson and Patterson (2003) , who found that changes in credit risk may reflect changes in the health of a bank's loan portfolio, which may affect the performance of the institution. Further Duca and McLaughlin (1990) found that variations in bank profitability are largely attributable to variations in credit risk, since increased exposure to credit risk is normally associated with decreased firm profitability.

The findings are also in agreement with the finding of Miller and Noulas (1997), who found that, suggest that the more financial institutions being more exposed to high risk loans increases the accumulation of unpaid loans and decreases the profitability, this is an indication that decline in loan loss provisions are in many instances the primary catalyst for increases in profit margins. Thakor (1987) further argues that the level of loan loss

provisions is an indication of a bank's asset quality and signals changes in the future performance (Fadzlan and Royfaizal, 2008).

Fadzlan and Parman (2009) revealed that LLP/TL had a negative relationship with bank profitability and was statistically significant indicating that NCBFIs with higher proportion of riskier loans tend to exhibit lower profitability levels. The finding is consistent with earlier studies by among others, Kwan and Eisenbeis (1995), Resti (1997), and Barr*et al.*(2002) which have found negative relationship between problem loans and bank efficiency. Furthermore, most research conducted on explaining the causes of bank or thrift industry failures have found a large proportion of non-performing loans at failing institutions prior to failure (Dermiguc-Kunt, 1989; Whalen, 1991; Barr and Siems, 1994). Berger and Humphrey (1992), Barr and Siems (1994), and Wheelock and Wilson (1995) suggest that banks approaching failure tend to have low cost efficiency and experiencing high ratios of problem loans and that failing banks tend to be located far from the best practice frontiers.

The negative relationship between loan loss provision and profitability is in agreement with the finding of Podder and Mamun (2004) , who found that classification of loans does not ensure the improvement of the loan default situation, since classification does not ensure collection. Ben Naceur and Goaied (2008) , suggest that banks that hold a relatively high amount of capital and higher overhead expenses tend to exhibit higher net-interest margin and profitability levels, while size is negatively related to bank profitability. Naceur (2003) found that a high net interest margin and profitability are associated to the banks that possess a relatively high amount of capital and with large

overheads. Sufian (2010) found that the inflation has a significant pro-cyclical impact, the GDP has a counter-cyclical influence, and the banking sector concentration has a negative impact upon the profitability of the banks, as well.

Angela and Adina (2013) found that the ratio of nonperforming loans, the management quality and the ratio of liquid assets to total assets has a significant impact on the banking profitability. The result of the study is in line with the ones obtained in other studies that focused on banking profitability. Based on the obtained results, it was considered Romanian banks can improve their profitability, especially by increasing the quality of the assets, improving the quality of the management, increasing the non-interest income and increasing the bank dimension.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

This study was intended to establish the effect of loan loss provisions on DTS profitability. The focus was to determine whether loan loss provision influence profitability of deposit taking Saccos. In order to achieve this objective, the study was designed to collect and analyse the relevant data for licensed DTS for four years from 2010 to 2013 in Nairobi County. Secondary data was collected from the regulator-SASRA to achieve the stated objective. Regression analysis on data from a sample of 45 Saccos registered in Nairobi County. A suitable regression model was designed in order to capture all the relevant variables of the study.

From the finding of the Adjusted R squared, the study revealed that changes in profitability of Deposit taking Sacco's could be accounted to changes in loan loss provision, size of the Saccos, loan intensity and quality of management. The study also found that there was strong positive relationship between profitability of Deposit taking Sacco's and loan loss provision, size of the Saccos, loan intensity and quality of management. From the regression equation it was revealed that a unit increase in loan loss provision would lead to decrease in profitability of Deposit taking Sacco's. The study further revealed that a unit increase in size of Saccos, loan intensity and quality of management would lead would lead to increase in profitability of Deposit taking Saccos. This shows that there was positive relationship between profitability of Deposit taking Saccos and size of Saccos, loan intensity and quality of management. The study also revealed that there was negative relationship between profitability of Deposit taking

Saccos and loan loss provision. The study revealed that loan loss provision, size of the Saccos, loan intensity and quality of management significantly influence the profitability of Deposit taking Sacco's.

5.2 Conclusions

The objective of the study was to establish the effect of loan loss provisions on DTS profitability. The findings of the study confirmed that there exists a negative relationship between loans loss provision and profitability of deposit taking Saccos in Nairobi County, as the study found that a unit increase in loan loss provision lead to decrease in profitability of deposit taking Saccos in Nairobi County.

Upon examining other variables that have an impact on profitability of deposit taking Saccos, the following control variables depicted a positive relationship with profitability of deposit taking Saccos; size of the Saccos, Quality of Management and Loan intensity . The positive relationship between profitability of deposit taking Saccos and size of the Sacco shows that profitable Saccos are big in terms of their assets.

Quality of management was found to have positive relationship with profitability of deposit taking Saccos. The reason may be that well qualified and well remunerated staff are able to employ their professionalism to manage loan portfolio's and hence lead to reduced non-performing loans which in return reduces loan loss provisioning; this positively influence their performance.

The positive relationship between profitability of deposit taking Saccos and loan intensity is an indication that increase in amount of loans leads to profitability of deposit taking

Saccos, as the study found that a unit increase in loan intensity leads to profitability of deposit taking Saccos.

5.3 Policy Recommendations

From the above discussion and conclusion the study recommends that DTS should engage qualified personnel who are in a position to manage loan portfolio's which in turn reduces credit risk/loan loss provision which in effect improves profitability.

The study also recommends that management of Saccos must take note of their Size as it will affect their profitability as the study found that unit increase in size of the Saccos will lead to increase in profitability of deposit taking Saccos.

It is recommended that management of Saccos should adhere to laid down policies and regulation by SASRA on management of Saccos as it was found that quality of management positively affect the profitability of deposit taking Saccos.

The study also recommends that there is need for deposit taking Saccos to build their loan portfolio's by advancing more loans to their members as it was found that increase in loans intensity positively influence the profitability of deposit taking Saccos

5.4 Limitations of the Study

In attaining its objective the study was limited to 45 Saccos registered in Nairobi County between years 2010 to year 2013.

Secondary data was collected from the Saccos financial reports. The study was also limited to the degree of precision of the data obtained from the secondary source. While

the data was verifiable since it came from the Sacco's published financial statements, it nonetheless could still be prone to these shortcomings.

The study was limited to establishing the effect of loan loss provisions on DTS profitability. For this reason the non DTS Saccos could not be incorporated in the study.

The study was based on a four year study period from the year 2010 to 2013. A longer duration of the study would have captured periods of various economic significances such as booms and recessions. This may have probably given a longer time focus hence given a broader dimension to the problem.

5.5 Suggestions for Further Studies

A study can be designed to find out how what variables are applicable to non DTS Saccos. This will give an indication as to what factors are critical in arriving at profitability of Saccos in general.

From the findings and conclusion, the study recommends and in-depth study to be carried out on the relationship between profitability of DTS Saccos and other determinants of profitability.

There is need to conduct a study on relationship between SASRA regulation and loan loss provision among DTS Saccos.

There is need to conduct a study on the relationship between non-performing loans and profitability of deposit taking Saccos.

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APPENDICES

Appendix I: List of Licensed DTS in Nairobi County

#s	Name of Society	Postal Address
1	Afya Sacco Society Ltd	P.O Box 11607-00400, Nairobi
2	Airport Sacco Society Ltd	P.O Box 19001-00501, Nairobi
3	Ardhi Sacco Society Ltd	P.O Box 28782-00200, Nairobi
4	Asili Sacco Society Ltd	P.O Box 49064-00100, Nairobi
5	Banana Hill Sacco Society Ltd	P.O Box 333-00219, Karuri
6	Chai Sacco Society Ltd	P.O Box 278-00200, Nairobi.
7	Chuna Sacco Society Ltd	P.O Box 30197-00100, Nairobi.
8	Comoco Sacco Society Ltd	P.O Box 30135-00100, Nairobi.
9	Elimu Sacco Society Ltd	P.O.Box 10073-000100, Nairobi.
10	Fundilima Sacco Society Ltd	P.O Box 62000-00200, Nairobi.
11	Harambee Sacco Society Ltd	P.O Box 47815-00100, Nairobi.
12	Hazina Sacco Society Ltd	P.O Box 59877-00200, Nairobi.
13	Jamii Sacco Society Ltd	P.O Box 57929-00200, Nairobi.
14	Kenpipe Sacco Society Ltd	P.O Box 314-00507, Nairobi.
15	Kenversity Sacco Society Ltd	P.O Box 10263-00100, Nairobi.
16	Kenya Bankers Sacco Society Ltd	P.O Box 73236-00200, Nairobi.
17	Kenya Police Sacco Society Ltd	P.O Box 51042-00200, Nairobi
18	Kingdom Sacco Society Ltd	P.O Box 8017-00300, Nairobi.
19	Magereza Sacco Society Ltd	P.O Box 53131-00200, Nairobi.
20	Maisha Bora Sacco Society Ltd	P.O Box 30062-00100, Nairobi.
21	Miliki Sacco Society Ltd	P.O Box 43582-00100, Nairobi.
22	Mwalimu National Sacco Society Ltd	P.O Box 62641-00200, Nairobi.
23	Mwito Sacco Society Ltd	P.O Box 56763-00200, Nairobi
24	Nacico Sacco Society Ltd	P.O Box 34525-00100, Nairobi.
25	Nafaka Sacco Society Ltd	P.O Box 30586-00100, Nairobi.
26	Naku Sacco Society Ltd	P.O Box 78355-00507, Nairobi.

27	Nassefu Sacco Society Ltd	P.O Box 43338-00100, Nairobi.
28	Nation Sacco Societ Y Ltd	P.O Box 22022-00400, Nairobi.
29	Nest Sacco Society Ltd	P.O Box 14551-00800, Nairobi.
30	Safaricom Sacco Society Ltd	P.O Box 66827-00800, Nairobi.
31	Sheria Sacco Society Ltd	P.O Box 34390-00100, Nairobi.
32	Stima Sacco Society Ltd	P.O Box 75629-00100, Nairobi.
33	Telepost Sacco Society Ltd	P.O Box 49557-00100, Nairobi.
34	Tembo Sacco Societty Ltd	P.O Box 91-00618, Ruaraka.
35	Transcom Sacco Society Ltd	P.O Box 19579-00202, Nairobi.
36	Ufanisi Sacco Society Ltd	P.O Box 2973-00200, Nairobi.
37	Ufundi Sacco Society Ltd	P.O.Box 11705-001400, Nairobi.
38	Ukristo Na Ufanisi Wa Anglicana Sacco Society Ltd	P.O Box 872-00605, Nairobi.
39	Ukulima Sacco Society Ltd	P.O Box 4407-00100, Nairobi.
40	Unaitas Sacco Society Ltd	P.O Box 1145-10200, Murang'a.
41	United Nation Sacco Society Ltd	P.O Box 30552-00100, Nairobi.
42	Wana-Anga Sacco Society Ltd	P.O Box 34680-00501, Nairobi.
43	Wananchi Sacco Society Ltd	P.O Box 910-10106, Nairobi.
44	Wanandege Sacco Society Ltd	P.O Box 19074-00501, Nairobi.
45	Waumini Sacco Society Ltd	P.O Box 66121-00800, Nairobi.