EFFECT OF CREDIT INFORMATION SHARING ON FINANCIAL PERFORMANCE OF SASRA REGULATED SACCOS

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DECLARATION

I, the undersigned, declare that this project is my original work and it has not been presented in any other University or Institution for academic credit.

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DEDICATION

This thesis is dedicated to my family members who have always believed in my potential and encouraged me to join the Masters programme in University of Nairobi, thanks for your prayers. To my supervisor, lecturers and fellow students for their undying support throughout my studies.

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ABSTRACT

Today, through the ability to share credit information banks, microfinance institutions, and SACCOs can share information on outstanding loans through the Credit Reference Bureau (CRB). Through credit information sharing lenders of finance can access reports relating to the past credit history of the borrower and the repayment patterns (CIS Kenya, 2018). The CRB provides information on the entire loan book of an individual meaning that one can view past and current repayments and whether they are up to date or they are overdue. The study is aimed at understanding the effect of credit information sharing through a comparison between the periods before the enactment of the bill calling for information sharing and the period after the bill. A descriptive research design was used to analyze the impact of credit information sharing on SACCOs. The study established that financial performance was higher before credit information sharing than after. This underscores the fact that credit information sharing brings about better financial performance of the savings and credit corporations. The findings established a significant difference between financial performance before and after credit information sharing. The study concluded that credit information sharing has helped correct this inequity by letting Saccos and other loaning organizations to gather and part data on millions of potential borrowers, thus allowing lenders to gather information on the solvency of each. Founded on the results, the study endorses that the Government of Kenya ought to issue the credit-information rules and make consciousness for the same so that moneylenders can succumb credit information of their borrowers.

LIST OF ABBREVIATIONS

CBK	-	Central Bank of Kenya
CIS	-	Credit Information Sharing
CRB	-	Credit Reference Bureaus
GDP	-	Gross Domestic Product
NPA	-	Non-Performing Assets
NPL	-	Non-Performing Loans
SACCO	-	Savings and Credit Cooperative
SMEs	-	Small and Medium Enterprises

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Asymmetric information in the market has the ability to undermine the allocation of credit to potential borrowers while at the same time affecting the performance of financial institutions that rely on interest earned to stay sustainable (Hahm and Lee, 2011). Information asymmetry both in financial and social issues has been a great contributor to the exploitation of parties that are deemed to be less endowed with information. SACCOs are formed with the core aim of taking deposits from the members while at the same time issuing loans to improve their welfare. The most basic information required by a loans manager relates to the ability of the borrower to repay the funds issued. In the absence of such information, financial institutions are forced to use expensive investigations to gather data which in some instances may turn out incorrect. Lack of borrowers' credibility means minimal money circulation which could harm the economy. It is therefore of interest to economists in the country on the importance of sharing credit information for SACCOs. Building the confidence of participants dictates the vibrancy of the sector (Olando, Jagongo & Mbewa, 2013).

Today, through the ability to share credit information banks, microfinance institutions, and SACCOs can share information on outstanding loans through the Credit Reference Bureau (CRB). Through credit information sharing lenders of finance can access reports relating to the past credit history of the borrower and the repayment patterns (CIS Kenya, 2018). The CRB provides information on the entire loan book of an individual meaning that one can view past and current repayments and whether they are up to date or they are overdue. Credit information sharing is beneficial to the lender and the borrower. The borrower has the ability to differentiate themselves as opposed to being labelled a defaulter owing to other people's track record. It provides them with

the ability to negotiate interest rates and credit terms. Further, they are subjected to less paperwork and thus fast loan processing.

On the other hand, lenders have reduced risk as they give funds to persons with a higher likelihood to pay. Credit sharing Information provides a platform to quickly assess the character, capacity, capital, collateral, and condition of their customers. It means that they can process loans at a higher speed and with better efficiency. Lenders are protected against borrowers who borrow simultaneously from multiple sources without the knowledge of the lenders (Jappelli & Margo, 2005). The study is aimed at understanding the effect of credit information sharing through a comparison between the periods before the enactment of the bill calling for information sharing and the period after the bill.

1.1.1 Credit Information Sharing

Credit information sharing (CIS) entails the exchange of information on the credit status of applicants' credit status between financial institutions and credit bureaus. CIS could be done privately by financial institutions whose principal role is to gather information on borrowers depending on the details requested. However, in such instances, information is one way as some institutions may refuse to give information owing to client confidentiality. However, when imposed by the government, it becomes compulsory for institutions to share information (Jappelli & Margo, 2005).

Credit information sharing in Kenya was gazetted in July 2008 and came into operation in February 2009. The establishment of the regulations provides an avenue for regulation of the CRBs which are allowed to collect and share information with institutions that are licensed under the Bank Act. Sharing of credit information provides the people of Kenya with an opportunity to access

affordable credit as information asymmetry is reduced and thus lowers the cost of accessing credit. In the past, the cost of accessing information or bearing the risk of information asymmetry was borne by the borrowers as a risk premium (Central Bank of Kenya, 2013).

Credit information sharing is done through the use of information technology that allows ease in the transmission of data between the institutions. The Central Bank of Kenya requires that at the end of each month starting from July 2010 all non-performing loans be submitted to licensed CRBs with a provision of incremental information being provided on a monthly basis. Failure to provide such information by the listed institutions can attract remedial action from the CBK (CIS Kenya, 2018).

In the initial years of passing the law, credit reference bureaus (CRB) only shared negative information on the loans advanced to the borrowers, but advancement in operations have seen the institutions sharing both positive and negative information. CRBs have the right to retain both positive and negative information for five years as this period is considered adequate for predicting the creditworthiness of the borrowers. The CBK has in the past few years noted that CRBs have been fast to list persons yet persons with outstanding credit record have not enjoyed the benefit of cheaper credit which is an issue that the CBK expects to rectify in the future.

1.1.2 Performance of Saccos regulated by Sacco Societies Regulatory Authority

Savings and Credit Cooperative Societies (SACCOs) are organization run and managed by members with a common objective with core intention being to mobilize resources with the aim of improving the economic welfare of its members. SACCOs are an integral part of the Kenyan economy as they enhance the ability of the members to generate an income, especially in the rural areas. They provide their members with the ability to borrow up to three times their savings

meaning that they have to seek funding from other sources other than their members. In addition, they are faced by the need to follow interest rate, competition, and the ever-changing technology. To resolve such issues, regulations were implemented in 2010 to ensure that capital requirements are enforced to ensure that the loan deposit ratios are maintained (SASRA, 2017).

Sacco Societies Regulatory Authority (SASRA) was formed under the Societies Act of Kenya with the mandate to license SACCOs that carry out deposit taking, to regulate and supervise their operations, and to levy contributions according to the Act. SASRA requires that SACCOs maintain the capital adequacy of 10% of the total liabilities. Further, SASRA requires that the paid-up share capital of the members not to be expended unless on the liquidation of the SACCO (SASRA, 2017).

The good performance of SACCOs is critical to the long-term competitiveness of the organization as well as its sustainability. Evidence has shown that there is a connection between the ability of an institution to manage credit and the overall performance (Kioko, 2014). However, the performance of SACCOs is influenced by other factors other than credit information. Such factors include the management and employee turnover, the inflation levels and the status of the economy. Some of the variables that indicate performance include capital adequacy, the asset quality, the management quality, earnings and liquidity. These factors will form a guideline to showing how they have been affected by credit information sharing.

1.1.3 Credit Information Sharing and performance of Saccos regulated by Sacco Societies Regulatory Authority

The good performance of credit in an institution issuing loans is key to the success of financial organizations as they influence the profitability. The Kenyan financial sector has in the past

struggled with non-performing loans that have led to not only the collapse of SACCOs but that of banks. There are persons that become serial defaulters by perpetually borrowing from one institution and failing to pay their dues. Such defaulters in the country thrived due to a lack of a mechanism to share information on the credit status of the borrowers. The development of a sustainable information sharing environment is expected to reform the financial sector and enhance economic growth (Kioko, 2014). Credit information sharing is expected to reduce the number of non-performing loans in the long run.

Jappelli and Pagano (2002) indicate that economies that allow for sharing of credit information have twice the level of lending compared to those that do not. Further, when the persons requesting for loans realize that information on their loan repayment will be shared, they are likely to have a bigger incentive to pay. It means that credit information sharing is critical to the performance of institutions, especially where they base their lending decisions on the relevant information provided by the CRBs.

Competition in the economy has increased significantly with deposit-taking institutions competing for the same clients with formal banks. It is in this age that SACCOs are tasked with the role of keeping up with changes in the economy such as the need to adopt credit information sharing. Sharing of borrowers' information should no longer be seen as a means of eroding their reputation but as a way of ensuring that loans issued are repaid within the stipulated timelines.

1.2 Research Problem

The aim of any financial institution is to make earnings, give returns to their shareholders and remain sustainable. Sacco Societies are no exception as they exist to empower the members

through the mobilization of savings that are disbursed as credit thus earning an interest which ensures that they remain financially sustainable (Mudibo, 2005). However, this does not come without risk. Sacco Societies operate with limited resources, and thus loan delinquency can send them into insolvency. Further, Sacco Societies in Kenya have the challenges of lack of confidence by the members owing to a history of poor governance. The poor management of SACCOs is associated with poor investment decisions especially when lending out funds to their members.

There has been slow growth for SACCOs with wealth being threatened by the inability to absorb losses forcing members to absorb operational losses. Such signals external financiers on the risk related to the SACCO and thus there is a risk of more liquidity. In the recent past, SACCOs have been trying to realign their operations to address the needs of their members through granting credit while protecting the financial sustainability of the organization. The enforcement of credit sharing information came to ensure that the main source of income for SACCOs and other financial institutions is protected. SACCOs are in existence with the aim of saving funds for their members and providing affordable credit (Kioko, 2014). Credit provision for SACCOs is, therefore, core business for them. There is an increase in interest in the impact of credit sharing information on financial institutions however with significant focus being on the impact on commercial banks.

In the years between 1980 and 1990, the Kenyan economy experienced a growth in non-performing loans (Dankwah, 2012). Such defaults led to the collapse of many banks in Kenya and defaulters thrived in the Kenyan economy. Since the period, numerous studies have been done to understand its impact on the banking sector. Kiage, Musyoka & Willy (2015) did a study to understand the impact of CIS in Kisii County. Okumu (2015) did a study on the impact of CIS on commercial banks. Kisengese (2014) did a study on impact of CIS on non-performing loans. There

are many studies on CIS but the focus has been on commercial banks and thus prompting the need to understand the impact that credit information sharing has on the performance of SASRA regulated Saccos by addressing the question: What is the impact of credit information sharing on performance of SASRA regulated SACCOs?

1.3 Research Objectives

The research problem will be addressed by looking into the following research objectives:

To study the effect of credit information sharing on the financial performance of SASRA regulated SACCOs.

1.5 Value of the Study

The research is aimed at understanding the effect of credit information sharing and the performance of SACCOs. The study will, therefore, inform managers of the SACCOs on the tactics that should be applied to ensure that their institutions stay sustainable and profitable in the long term. It will provide a platform to understand the financial areas that are most affected by looking into the background of their borrowers and the level of significance of credit information sharing.

The government and policy maker will understand the importance of credit information sharing on the performance of Saccos. Such knowledge is key in enforcing the laws as well as in the creation of new and important policies.

The research paper adds to the body of knowledge as they create an additional pool of knowledge that will enhance already documented information as well as that which is undocumented. The

study will specifically target Sacco's which are an isolated study area as issues of credit information sharing have in the past focused on the banking sector.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The literature review section of the study will look into other studies that have been done on the impact of credit sharing of information on regulated SACCOs and financial institutions both locally and internationally. It aims to bring forth the contribution of other scholars to the topic and the gaps that need to be addressed. The literature review will highlight other factors influencing the performance of SACCOs including the liquidity management, profitability and the solvency of the organization. Further, the chapter will cover the theoretical and empirical literature of the study as well as the conceptual framework.

2.2 Theoretical Review

Theories are formulated with the aim of explaining and understanding phenomena, predicting future occurrences as well as challenging the knowledge that is already existing within a certain set of assumptions. The theoretical framework comes in as a structure to support the theory under the research study. It provides a critical evaluation of works that have been done on the problem that the research is trying to resolve. Theories are fundamental in a study as they explain relationships, events and behaviours. The theories to be looked into in the study include the information asymmetry theory, the moral hazard theory and theory of financial intermediation.

2.1.1 Information Asymmetry Theory

The information asymmetry theory was first introduced by George Akerlof in the year 1970. The primary argument of the theory is that consumers use statistics in the market to place value on the goods that they are buying. The buyer, therefore, has the general market information while the

seller on the hand has specific information relating to the item (Auronen, 2003). It means that the seller is at an advantage to sell an item of lower quality than the market expectation which ultimately reduces the market size in the long run. It means that there is a need for an intermediator to mitigate such information asymmetry.

According to Akerlof information asymmetry in the market can be reduced by introducing intermediaries in the market known as counteracting institutions such as guarantors. They allow the buyers enough time to get to the same level of information as the sellers before they assume the full risk of the item they are about to purchase. These actions ensure that the market stays afloat and that transactions do not reduce to zero (Auronen, 2003). Akerlof has applied the theory to insurance companies where individuals understand their risk of being engaged in accidents, but insurance companies are unaware. Insurance companies need to understand such factors if they are to offer different insurance contracts based on the risk factors of their various groups. It means that insurance companies are at risk of adverse selection.

The theory has been credited on the strength that it explained the previously unexplained economic phenomenon that justifies the existence of counteracting market institutions. It justifies the need for regulation of quality in the market (Auronen, 2003). The theory further that information is a key market determinant and that financial institutions should not banish the publication of information in the footnotes. Further, the argument is applauded for its applicability in multiple disciplines.

The theory is however criticized for its weakness in oversimplifying the market which puts it at risk of being manipulated in today's complex real world (Auronen, 2003). Further, there are random variables in the market that prevent market players from distinguishing between good and

bad individuals. The weakness of the theory, however, lay in the application of the theory in the real world as opposed to its development.

The information asymmetry theory is a key theory for the study as it indicates that when one party has information that is inaccessible to the counterparties, the counterparties are likely to use it to their advantage. In financial markets, the lack of adequate information could lead to negative consequences for those possessing information and those without the information (Clarkson, Jacobsen and Batcheller, 2007). The theory comes in handy in the study in understanding the effect of credit information sharing in regulated Saccos as these are institutions that give credit to borrowers whom they do not fully understand their financial background. The borrowers in this instance are seen to have an advantage which however is mitigated by credit information sharing.

2.1.2 Moral hazard theory

The issue of moral hazard arose from the literature on insurance which looks into loss increasing behaviour under insurance when individuals feel that they are protected. The theory was brought forth by Pauly in 1968 who brings forth the concept that people lack the incentive to take care when they know they will not suffer the consequences of their previous actions (Rowell &Connelly, 2012). The theory builds on the information sharing theory as in this instance one person withholds essential information that would have been necessary in the determination of insurance premiums.

The theory is fundamental in the study as it highlights the fact that when people know that they have borrowed in the past and not repaid back as desired, and they enjoy confidentiality of information, they will have the capability to access finances from other institutions. It means that they can consistently borrow and default leaving financial institutions to suffer the loss. On the

other hand, if they know that their credit information will be shared, they are unlikely to place themselves at the risk of being listed by the credit reference bureau, and thus the rate of default may be lower.

2.1.3 Theory of financial intermediation

Financial intermediation relates to having someone come in between the borrowers and the lenders to ensure that there is an efficient allocation of resources. In a fully efficient market there would not exist financial intermediation as the outcomes in such markets are certain, and everybody has all the information. However, market imperfections have brought forth a situation where there is incomplete information, and no person can perfectly predict future occurrences. It is thus the role of financial intermediaries to discover information on the value of assets, the integrity of the consumers and their abilities (Hester, 1994). It is through the intermediaries that the characteristics of assets in the market is transformed to make it more convenient for the society to hold. They improve the manner in which data is processed to ensure efficiency in the market.

The theory has been criticized for only addressing ad hoc situations and thus leaving it open to constant extension by new models. The theory fails to evolve into a general explanation of the role of financial intermediaries in the market and the economy as a whole. The focus is mainly on investigating contingencies in the market (Scholtens & Wensveen, 2003).

The theory comes in to explain the role of credit information sharing bureaus as the intermediaries in financial markets to prevent information asymmetry. It is in their role that they should make it easier for borrowers to access funds based on good credit standing while protecting SACCOs against uncreditworthy clients accessing funds that they may never pay.

2.3 Determinants of Financial Performance of SASRA Regulated Saccos

Lenders in the financial sector provide credit that is necessary for the economic growth of the country. They need to do this in an environment that provides comprehensive information to allow them to make an informed credit assessment of the status of their borrowers. SACCOs in Kenya are the largest in Africa with over 3.5 million members with a portfolio of $2 billion in loans as of the year 2012 (Pedo, 2015). The default of loans poses the highest risk to the stability of the SACCOs. Developing countries such as Kenya lack the necessary technology and management information systems and thus straining the ability to carry out efficient operations. It results in a situation where institutions are unable to track loan delinquencies, ageing loans, loans that have been written off in the past to determine whether to give credit to their clients or not. Credit information sharing provides an avenue for organizations to work together to collect information which is not prejudiced in nature which is achieved through the credit reference bureau. In addition to credit information sharing influencing the performance of Sacco's other factors have been seen to have impact including liquidity management, interest rates, capital adequacy and asset quality.

2.3.1: Liquidity management

Financial institutions are gauged on their ability to meet their cash and debt obligations without incurring losses in the process or becoming insolvent. It means that the financial institution can fund an increase in assets in order to meet their financial obligations when they fall due (Kumar & Yadav, 2013). In the traditional sense, liquidity is viewed as the ability of an organization to meet their liabilities when they fall due. However, it could also be taken to mean that a financial institution can obtain funding from the market if they need to repay their debt. Liquidity management, therefore, relates to the ability to understand the cost-benefit analysis of financing.

Organizations need to invest their assets to generate adequate financing to ensure they can pay for the borrowed amounts at a gain (Kumar & Yadav, 2013).

Liquidity risk in an organization arises when a financial institution occurs when there is funding for long-term assets using short-term liabilities. Such risk is highly dependent on the individual characteristics of an organization (Kumar & Yadav, 2013). Gweyi, Olweny & Oloko (2016) indicate that liquidity risk has been of high interest in the recent times owing to the financial crisis in the banks. The research indicates that liquidity risk causing bank runs in the economy can adversely affect Saccos as they highly depend on banks for financing. The findings of the study found that liquidity risk influences the performance of Saccos as measured by the ability of the Saccos' liquid cash reserves ability to meet their obligations within 30 days or less.

Since the inception of SASRA regulations, over 44% of Saccos have had their licenses revoked in Kisii County due to poor performance owing to liquidity related problems (Osoro & Muturi, 2015). One of the leading causes of liquidity issues is related to the fact that Saccos lack non-withdrawable savings products and they have large amounts of assets invested in non-interest earning assets. Saccos are also seen to lack a liquidity management contingent plan meaning that they are unable to survive the shocks once they hit the market. Ogol (2011) cite that Saccos have in the recent past faced negative publicity leading to huge withdrawal of funds by the customers which further push the organization into deeper financial crisis.

2.3.2: Interest Rates

Interest rates are monies received by lenders once they forego immediate spending of money through giving it to the lenders. Interest is earned because money is an asset as one of its properties. Financial institutions including Saccos need to charge interest on money lent to its clients in order to cover for their costs and make a gain if they are to remain in operation into the unforeseeable future (Kimutai, 2003). It is through the interest rate that Saccos manage to cater for their operational costs as well as financial costs and provide for reserves necessary for the growth of the institution.

Interest income is considered the primary source of income for Saccos and therefore SASRA regulated Saccos are encouraged to maximize the returns they make on their assets. The interest rate spread which is the difference between interest earned and interest paid influences the financial position of institutions. Interest rate spread is influenced by factors including the size of the financial institution, the credit risk as measured by the level of nonperforming loans to the total loan book, return on assets, and the operating costs (Were & Wambua, 2014). In the year 2016 Kenya additional passed a bill requiring the capping of interest rates which influences the performance of financial institutions. Ngugi (2016) indicates that with the enactment of interest rate capping Saccos were forced to reduce the interest rates they charge their members to retain a competitive edge.

Saccos are however still seen as a preferred source of loans because they are less discriminatory and members can access loans based on the security of their contributions (Kamau, 2017). Kamau (2017) indicates that there is continued debate on whether interest rate capping has pushed clients to banks from the Saccos and is a topic that continues to be of interest.

2.3.3: Capital Adequacy

According to SASRA capital adequacy means that Saccos maintain a level of capital that is adequate to cushion the deposits of the members as well as creditors against loss that would occur in the event of business risks. It is a means of increasing the confidence of members to ensure that they do not panic each time negative news hit the market. Saccos are expected to maintain a capital adequacy of 10% of their total liabilities. In the event that a Sacco's capital adequacy falls below the requirement, SASRA prohibits them from issuing dividends, engaging in new business activities, suspends lending, investing and purchase of new assets. Further, they are not in a position to accept further deposits until they bring their capital adequacy to the desired levels (SASRA, 2017). Such actions have a direct impact on the performance of Saccos as it translates to halting business whereas operating expenses still have to be paid.

The inability to meet the minimum capital requirements is mainly brought about by persistent losses which lead to a lack of retention of earnings (Rehema, 2013). It translates to a situation where the Sacco is unable to absorb losses and support the financial needs of their members. When such occurs, there is a lack of confidence in the customers leading to panic withdrawals which further heightens the economic instability of the organization. It is therefore in the interest of the management of the Sacco to ensure that there is adequate capital in a bid to manage the risk of the organization.

Capital adequacy has a positive relationship with the financial performance of Saccos (Kariuki & Wafula, 2017). The study supported the argument that capitalized institutions have lower external financing costs which enhance the profitability of the institution. Osoro & Muturi (2015) found that capital adequacy has a significant positive relationship with the return on assets (ROA).

2.3.4: Asset Quality

Saccos depend on loans to generate an income, and they, therefore, form the main asset in the financial statements. It means that they are critical in measuring the performance of the Sacco. The loans in Saccos are financed by shares, deposits, and borrowing from external sources such as the banks (Osoro & Muturi, 2015).

The quality of assets in Sacco is measured by the value of the level of nonperforming loans relative to the total loans held by the organization. In financial institutions, when loans fall due for a period of over a year, they are classified as non-performing. In Kenya, SASRA requires that Saccos maintain a maximum of 5% ratio on non-performing loans (SACCO societies act, 2010). A higher ratio is an indication that the quality of assets of the organization is declining and the risk of the organization is increasing. Studies have shown that there is a significant relationship between the performance of financial institutions and credit risk management as measured by the levels of nonperforming loans. Kioko (2014) indicates that asset quality has been a major hindrance to the performance of Saccos as they are seen to concentrate high-value loans to a few individuals who end up becoming nonperforming loans.

2.4 Empirical Studies

The aim of empirical studies is to understand what other scholars have done on the topic. It is important in bringing out evidence based on the experiences and studies of other scholars both locally and internationally.

Researchers in the past have acknowledged that credit information sharing is critical especially in a market where information asymmetry is high. Such a situation could easily lead to adverse

selection which could lead to losses for the less informed party (Ndungo, Tobias & Florence, 2017). The study indicated that when institutions share information, people tend to shy away from defaulting on the loans they have taken as they do not wish to be listed on the CRB. Ndungo, Tobias & Florence (2017) did a qualitative and quantitative study with a sample size of 135 Saccos registered under SASRA using both primary and secondary findings. The study found there was a significant relationship between information sharing and performance of Saccos. The study indicates that an increase in monitoring and enforcement of the need to share information improved the rate at which information is shared.

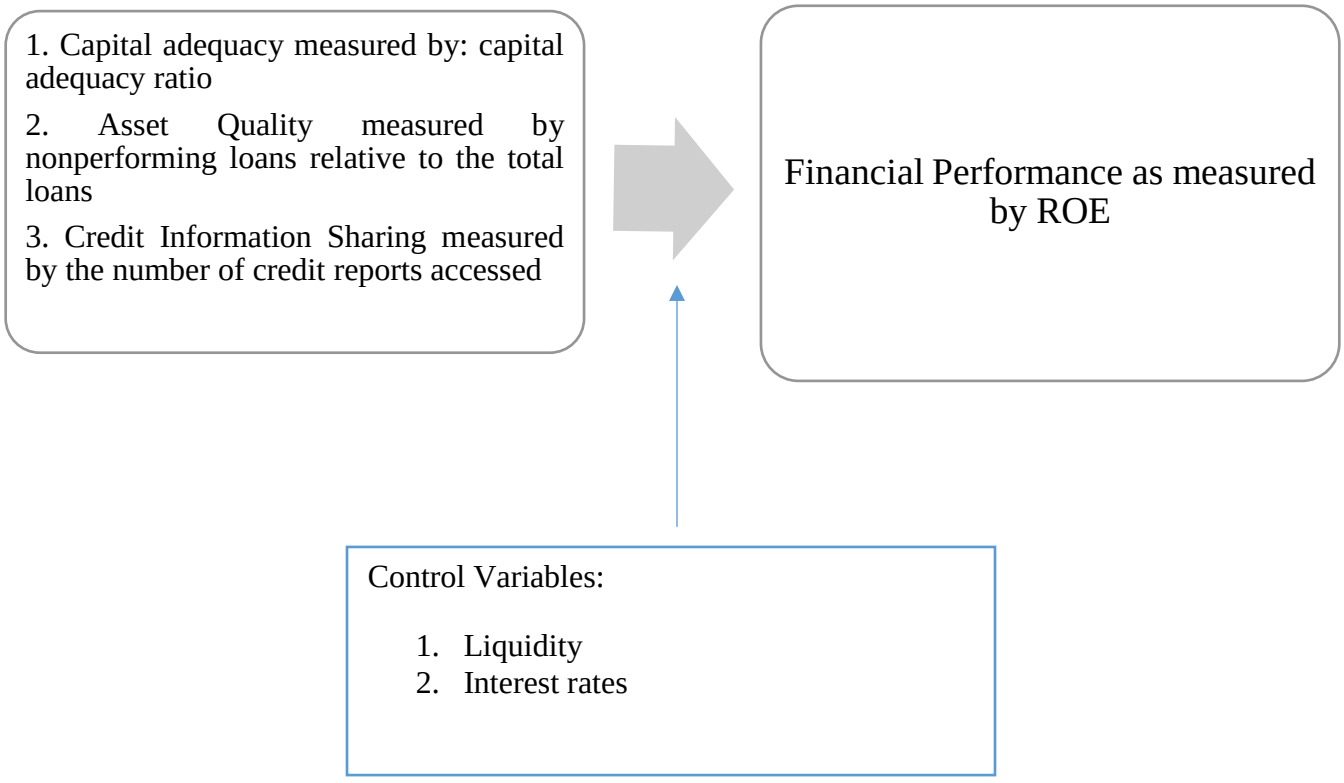
Credit information sharing is not limited to Saccos as banks are also required to share information. Kiage, Musyoka & Willy (2015) surveyed the impact of information sharing of financial banks in Kisii County. The study was conducted through primary data collection by issuing questionnaires to managers of commercial banks in the county who were 34 in number. The study found that information sharing mitigates the risk that borrowers will be over-indebted which lowers the risk that they will default finances owed by them. It means that the cost related to managing loans by the banks is significantly reduced and thus improving their profitability. The study recommended the need to ensure that there is compliance with the requirements of CIS to enhance the quality of information shared and thereby further enhancing performance.

Information asymmetry is a real issue affecting the performance of the economy (Hahm & Lee, 2011). Their study, however, focused on the impact of positive information sharing on the economy. Korea developed the need to share credit information in the year 1997 as a result of facing a financial crisis. In the face of change, financial institutions shared negative information, but with time, positive information started to be shared. The study found that banks that can utilize

both positive and negative information have better credit decision models and thus have better quality borrowers.

2.5 Conceptual Framework

The conceptual framework brings out the important variables of the study seeking to understand the effect of credit information sharing on the performance of Saccos in Kenya. The independent variables in the study include the factors that influence the financial performance of Saccos which is the dependent variable. Financial Performance as measured by ROE



Source: Author, 2018

2.6 Summary of Literature Review

The literature review was key in bringing out the theories relating to credit information sharing including the information asymmetry theory, moral hazard theory and the theory of financial intermediation. The theory of information asymmetry shows that when one party has better information than the other, then the adverse selection is likely to occur in the market which could lead to losses for the disadvantaged party. The moral hazard theory stipulated that when people know that they have borrowed in the past and not repaid back as desired, and they enjoy confidentiality of information, they will have the capability to access finances from other institutions putting the institutions at risk. The empirical studies brought out studies that have been done by other scholars on the issue of information sharing both locally and internationally. The chapter also looked into the other factors influencing the performance of Saccos including liquidity management, asset quality, capital adequacy and interest rates. The chapter finally brought out the conceptual framework.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The topic of research methodology brought into perspective the systematic manner in which the research problems were investigated and evaluated. It entailed identifying the techniques that were suitable for collecting data, processing the data and analyzing it in a bid to answer the research questions. A robust research design ensures that the researcher understands the theories that underpin the study and that the findings are free of personal bias (Austin & Sutton, 2014).

3.2 Research Design

The research design aims to bring into perspective the strategy that integrate the different components of research logically to ensure that the research problem is addressed. The research design ensures that the evidence collected in the study is as unambiguous as possible (Labaree, 2009).

The study on the effect of credit information sharing on the financial performance of Saccos is qualitative. A quantitative study is one that aims to establish the relationship between variables where one variable is independent, and the other variable is dependent in the population under study (Hopkins, 2000). Quantitative studies can either be descriptive or experimental. The study was descriptive as it is aimed at establishing an association between variables as opposed to establishing causality as experiments do.

A descriptive research design was used to analyze the impact of credit information sharing on SACCOs. Descriptive data analysis answers the research questions relating to “who” “how”

"what" and "when" thus becoming suitable for the study. The design is applied in the conditions where the subjects are observed in a natural setting without influencing their behaviour. Further, it is useful for quantitative studies as it gives pointers to important variables. It is also important when there is a large amount of data to be collected and analyzed (Labaree, 2009).

3.3 Population

Blume and Stambaugh (2012) refer to the study population as all individuals in the study. The population is known to share similar characteristics. The population under the study was the 178 deposit-taking SACCOs in Kenya that are regulated by SASRA as at the end of the year 2017 (SASRA, 2017).

3.4 Sample Design

Sampling was used to select a subset of the SACCOs that will be studied. The study employed a random purposive sampling design in collecting data for the research study. According to Borg and Gall (2003), at least 30% of the accessible population is enough for the sample size. Thus a sample size of 54 SACCOs was randomly selected to represent the entire population

3.5 Data Collection

Data collection entails gathering data that is necessary in measuring the variables under the study. Data collection is fundamental in ensuring that the findings made are correct and can be relied on. Data collection can be done either using primary data or secondary data. The research was based on the available secondary information. Secondary data is already existing information based on

what other parties have done on the topic. Secondary data is already available data on books, newspapers, websites and publications of an organization.

Data on the study was collected from existing Saccos financial statements that are already publicly available or on request from the Saccos. The financial statements provided quantitative information that allowed the calculation of ratios that were necessary to determine the impact of credit information sharing. Data on the financial performance of SACCOs for a period of ten years from the year 2006 to the year 2015 which caters for five years before the requirement to share information and five years after passing of the bill.

3.6 Data Analysis

Data analysis entails processing the data collected into relevant information to make a conclusion and derive recommendations. It involved the determination of the data set to be used, the models to be applied and the manner in which data was presented. The study applied statistical analysis to compare the performance of Saccos before and after the need to share credit information. Financial performance ratios was used in the statistical model and was run through the Statistical Package for the Social Science (SPSS).

The CAMELs model was used to provide an analysis of the variables to establish performance before and after the introduction of the bill on credit information sharing. The CAMELS model provided for the analysis of variables such as Capital Adequacy (CA), Asset Quality (AQ), Corporate Management Efficiency (CME), and Liquidity Management (LM). The ratios to be computed in relation to the CAMELs model were as follows:

1.Performance as measured by Return on Equity (ROE) = Net Income/Permanent's members contribution

2.Credit information sharing; represented by the number of credit reports accessed per Sacco to total number of credit reports by all Saccos per year

3.Capital adequacy measured by capital adequacy ratio (equity that must be held as a percentage of risk-weighted assets).

4.Asset Quality measured by nonperforming loans relative to the total loans

5.Size of the Sacco: measured by the natural log of total assets (derived from SPSS)

The values of the ratios was computed and graphed to present the trend of the performance of the Saccos before and after the period of introduction of credit information sharing.

Further, a regression model will be used to establish how the independent variables explain the dependent variable. The model will take the form:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + \varepsilon$$

Where:

Y = Performance as measured by Return on Assets (ROE)

a = constant (The part of SACCOs performance that is influenced by other factors other than credit information sharing).

SACCOs performance is the dependent variable that is determined by various performance measures indicated as x_1, x_2, x_3 and x_4.

X_1 = Credit information sharing; represented by the number of credit reports accessed per Sacco to total number of credit reports by all Saccos per year

X_2 = Capital adequacy measured by capital adequacy ratio (equity that must be held as a percentage of risk-weighted assets.).

X_3 = Asset Quality measured by nonperforming loans relative to the total loans

X_4= Size of the Sacco: measured by the natural log of total assets (derived from SPSS)

Ɛ = Disturbance Term

3.7 Test of Significance

The test of significance in the study was used to determine whether there is a significant relationship between the ratios in the period before credit information sharing and the period after the credit information sharing was introduced for SASRA regulated Saccos. In this research, the standard deviation between the ratios was determined, and the t-test of significance was used.

The t-test is useful in establishing the statistical significance in ratio level data and can be applied where the same group of data has different means which in the study is represented by the same group of ratios in the pre and post credit information sharing period. It is through a test of significance that researchers understand whether relationship exists by chance or is important.

The first step is establishment of the null and alternate hypothesis. The alternate hypothesis is that there is a relationship between credit information sharing and financial performance and the null

hypothesis indicates that there is no relationship between credit information sharing and financial performance. The tests will be conducted at 95% confidence level.

The data is the study is in two data sets of which is the period before credit information sharing and after credit information sharing. Each set of data will contain the 5 ratios under the study

The test statistic will be computed for each ratio to establish whether there is a significant relation in the period of study and whether the relationship is positive or negative. The test statistic will be a paired t-test as it is meant to compare two related samples.

$$t = \frac{m}{\sigma/\sqrt{n}}$$

Where

t is the t-statistic

m is the sample mean

n is the number of companies under the study

σ is the standard deviation

3.8 Validity and Reliability

Reliability looks into assessing whether the findings of the study are consistent and can be replicated in the future while validity looks into ensuring that the test used measures what it was meant to measure. To test for reliability, the Cronbach alpha was used. The Cronbach Alpha lies between 0 and 1 with acceptable levels being 0.7 and above (Heale & Twycross, 2015). Validity looks into ensuring that the content in the study measures what it was meant to measure and one measure used is theory evidence where the behaviour picked is similar to theoretical propositions.

CHAPTER FOUR; DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter presents the findings on the influence of credit information sharing on Financial Performance in SASRA Regulated Saccos. In Kenya, credit information sharing is eased by credit information bureaus approved by the CBK and includes both financial institutions and clienteles (both as individuals or institutions). In Kenya, there are two licensed credit reference bureaus, namely; CRB Africa which was accepted in 2010 and Metropol Ltd licensed in April 2011. However, the launch of credit information sharing was in July 2010. Therefore, to bring out the impact of the two variables, the data collection covered the periods between 2006 and 2015. The study conducted a test of differences for the ten year period analysis. The half split that will be as of 2010 provides 5 years prior and **five year after 2010**. The study used evocative statistics (involving mean, standard deviation and quartiles), and mean differences through t-tests to found the association between financial performance and credit information sharing.

4.2 Reliability

Reliability of the statistics was tested using Cronbach's Alpha. The statistics had a Cronbach's Alpha score of 0.873 meaning that the same was appropriate for additional examination.

4.3 Descriptive Analysis

The data obtainable underneath demonstrations that the least value of the credit information entries was 0 though this is credited to the time of commissioning of the same by the CBK.

Table 4.1: Annual Data on Credit Entries

Annual Data	Credit Reports Shared	Credit reports requested	Credit worthiness	Financial Performance
2006	253	0	.221	.009
2007	461	0	0.421	0.012
2008	561	0	0.438	0.013
2009	2120	0	0.448	0.024
2010	2560	0	.221	.011
2011	256,062	256,902	0.421	0.021
2012	282,312	260,039	0.438	0.011
2013	296,571	261,309	0.448	0.024
2014	302,152	289,303	0.454	0.025
2015	332,626	299,349	0.468	0.013
Minimum	256,062	256,902	0.421	0.026
Maximum	332,626	299,349	0.468	0.071
Mean	293,945	273,380	0.446	0.034
Standard Deviation	28,022	19,514	0.02	0.022
First Quartile	282,312	260,039	0.438	0.22
Second Quartile	296,571	261,309	0.448	0.017
Third Quartile	302,152	289,303	0.454	0.014

Between the years 2006 and 2010, before CRB Africa and Metropol were licensed, no credit intelligences were demanded. However it was seen that in 2006, 253 credit reports were shared by the Saccos, 461 reports were shared in 2007, 561 reports were shared in 2008, 2,120 reports were shared in 2009 while 2560 reports were shared in 2010.

In the year 2011 the credit reference bureaus (CRBs) had 256,062 credit reports shared. At the end of 2012, the number of credit reports shared stood at 282,312 which increased by 14,259 to 296,571 at end of December 2013 and then augmented to 302,152 in 2014 and 332,626 in 2015. The five year analysis designated a normal deviation of 28,022 credit report shared. This indicated a low variation from the mean mark on the credit reports shared.

Analyzing the statistics descriptively, it is exposed that in 2011 the credit intelligences demanded stood at 256,902. These intelligences rose to 260,039 in 2012, 261,309 in 2013, 289,303 in 2014, 245,801 in 2010, 256,902 in 2011, 260,039 in 2012, 261,309 in 2013, 289,303 in 2014 and 299,349 in 2015. On average 273,380 credit intelligences are demanded yearly however this is topic to a variation intended by the normal variation of 19,513.

Analyzing the data descriptively, it is shown that in 2011 the credit dullness stood at 42.1%, 43.8% in 2012, 44.8% in 2013, 45.4% in 2014 and 46.8% in 2015. On average the credit worthiness was calculated at 44.6% with the standard deviation being approximated at 3.4%. On NPLs, Table 4.1 shows that the minimum in financial performance of the Saccos stood at 2.6% while the maximum was 7.1%. The average of the financial performance in the 5 year examination was projected at 3.4%. The standard deviation calculated of 2.2% designated slight variation from the mean.

4.4: Trend Analysis on Credit information Sharing

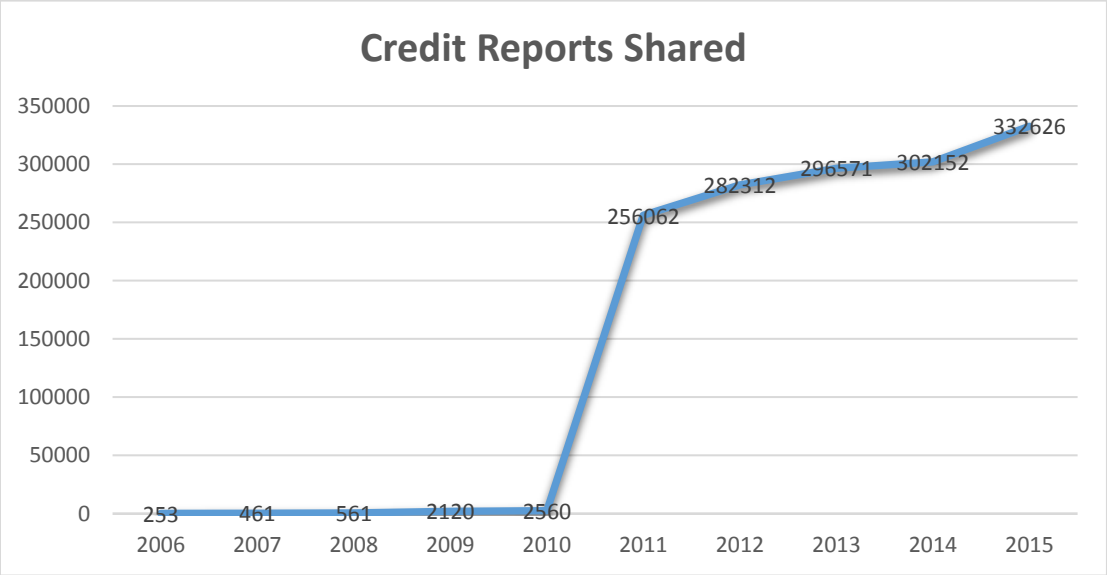


Figure 4.1: Trend Analysis

Source: Research Data

In the months starting January-2006 to December-2015, the trend results show that the number of credit intelligences communal by the Saccos has been usually cumulative. Though there has been a shrill reduction shadowed by sharp upsurge these show that the request for credit intelligences varies from time to time.

4.5: Model Summary

Table 4.2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867a	.751	.739	.35681

The adjusted R_2, also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. The perfect had an regular coefficient of resolve (R^2) of 0.735 and which indirect that 73.9% of the variations in financial performance of the SASRA registered Saccos in Kenya are caused by the independent variables understudy (Credit information sharing, capital adequacy, asset quality, Sacco Size).

Table 4.3: Analysis of Variance

	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Regression	2.536	4	.634	5.512	.001b
Residual	.003	49	.000		
Total	2.539	53			

Critical value = 2.588

Source: Research data, 2018

From the ANOVA statics, the study recognized the reversion model had a meaning equal of 0.1% which is a sign that the statistics was perfect for making a deduction on the populace limits as the value of significance (p-value) was less than 5%. The calculated value was greater than the tabulated value (5.512 > 2.588) an indication that credit reports shared, credit intelligences requested and credit worthiness all have a significant effects on an execution advances of commercial banks in Kenya. The significance value was less than 0.05 representatives that the perfect was important.

4.6 Pre and Post-Credit Information and Financial Performance of SASRA Registered Saccos

The study further lead a self-governing t-test to found whether there is as significant differences in the means of financial performance before and after credit information sharing. This tested the

null hypothesis that the means of the two groups are not significantly different against the alternative hypothesis that the means of the two groups are significantly different.

Table 4.4: Group Statistics - Mean Differences

Period	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Before Credit information sharing (2006-2010)	54	3.49E+11	1.241E+10	4.137E+09
After Information Sharing (2011-2015)	54	3.07E+11	1.285E+10	4.897E+09

From the results presented in Table 4.2, the means of the annual financial performance before credit information sharing was $3.49*10^{11}$ compared to $3.07*10^{11}$ after the credit information sharing. This portrays that the financial performance were higher before credit information sharing than after. This underscores the fact that credit information sharing brings about better financial performance of the savings and credit corporations.

Table 4.5: Independent Samples Test

	Levene's Test for Equality of Variances		T-Test For Equality Of Means				
	F	**Sig.**	**T**	**Df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**
Equal variances assumed	.151	.703	-6.061E+00	15	.000	-3.859E+10	6.367E+09
Equal variances not assumed			-6.020E+00	14.219	.000	-3.859E+10	6.411E+09

Levene's Test for Equality of Variances tells if the two groups (financial performance beforehand and after credit information sharing) have about equal variance on the dependent variable. If the Levene's Test is significant (the value under "Sig." is less than .05), the two variances are significantly dissimilar. If it is not significant (Sig. is greater than .05), the two variances are not significantly different; that is, the two variances are approximately equivalent. From Table 4.4, The Levene's meaning is .703, which is better than .05; the alterations are about identical.

Following from Levene's test, a T value of -6.06 is established at 15 degrees of liberty. A t-significance value of $p<0.001$ was also established; thus, there is a significant difference between the two groups (the significance is less than .05). Therefore, the findings establish a significant difference between financial performance before and after credit information sharing. Read together with the results in Table 4.2, the findings exemplify that financial performance is reduced by credit information sharing.

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the summary of the finding in chapter four. Conclusion and recommendations drawn from these findings are discussed in relation to the objectives of the study which was to establish the impact of credit information sharing on financial performance of the SASRA registered Savings and Credit Corporations

5.2 Discussions

Credit information sharing was hurled in July 2010 and within the first yearly count, 246,869 credit intelligences had been communal. On average 262,312 credit intelligences are demanded yearly though this is topic to a variation intended by the normal difference of 98,523. On average the credit worthiness was calculated at 33.6% with the standard deviation being approached at 8.6%. The study showed that the least in NPLs stood at 2.6% while the maximum was 7.1%. The average of financial performance in the 10 year examination was projected at 3.4%. The standard deviation calculated of 2.2% indicated little variation from the mean.

The trend results showed that the number of credit intelligences shared by Saccos had been generally cumulative. It was though noted that there had been a sharp decrease followed by sharp increase these show that the demand for credit reports varies from time to time. The findings in the analysis showed that credit information sharing accounted for 73.9% changes in financial performance of the Saccos.

Financial Performance was lower after credit information sharing than before same; $3.49*10^{11}$ compared to $3.07*10^{11}$ afterward the credit information sharing. A t-significance value of $p<0.001$ was established; portraying a significant change in financial performance with credit information sharing.

5.3 Conclusion

Information is the lifeblood of the modern economy. Credit information sharing helped correct this inequity by letting Saccos and other loaning organizations to gather and part data on millions of potential borrowers, thus allowing lenders to gather information on the solvency of each. By facilitating information sharing among moneylenders, credit bureaus has since 2010 with over 1,784,217 exchanges by 2015 enabled loaning organizations sort good debtors from evil, value loans suitably, decrease dispensation time and reduce broadcast and other deal prices.

By the same token, credit information distribution has also assisted banks and other financial organizations recuperate advances. That is, when debtors know that their credit information was communal, they have an extra inducement to wage. Good debtors also advantage from inferior attention rates, as moneylenders contest for their commercial. This has eased copying of cash for commercial start-up or consecutively which has extremely reproduced in the monetary performance. This concurs with Jappelli and Pagano (2002) findings that Sacco lending is about twice as large in countries where credit evidence is communal, regardless of the sort of evidence swapped.

5.4 Recommendations

Founded on the results, the study endorses that the Government of Kenya ought to issue the credit-information rules and make consciousness for the same so that moneylenders can succumb credit information of their borrowers (all lenders to report positive and bad evidence on payment performance) with the credit bureaus. The study also endorses that an open scheme wants to be improved to allow financial institutions as well as non-bank objects shops, telecom and practicality businesses—admission to credit past of debtors so as to know which customers to serve and what difference value to custody to cover dangers. To ease credit information sharing even more effectively, information access should be available at little or not at all cost.

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