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Determinants of financial self-sufficiency of Deposit-Taking SACCOs in Kenya.

Opondo, Kennedy Ongoro
Strathmore Business School
Strathmore University

DETERMINANTS OF FINANCIAL SELF-SUFFICIENCY OF DEPOSIT-TAKING SACCOS IN KENYA

KENNEDY ONGORO OPONDO

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Declaration

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Name of Candidate: Kennedy Ongoro Opondo

Approval

The thesis of Kennedy Ongoro Opondo was approved by the following:

Name of Supervisor: Dr. James Ndegwa

Senior Lecturer

School/Institute/Faculty: Strathmore University Business School

Dr. Angela Ndunge

Ag. Executive Dean

Strathmore University Business School.

Dr. Bernard Shibwabo

Director, Office of Graduate Studies

Abstract

Deposit-taking SACCOs in Kenya face a myriad of challenges that negatively impact their ability to continue issuing loans to members and engage in other revenue-generating activities. Among the key challenges facing SACCOs are: non-remittance of deductions by private companies and state agencies, mismanagement, fraud, liquidity constraints, and capital inadequacy. These factors largely threaten the survival of many SACCOs. The general objective of this study was to assess the determinants of Deposit-Taking SACCO self-sufficiency with a focus on the impact of corporate governance practices, loan quality, external finance, liquidity management, and investment choice on the financial self-sufficiency of DT-SACCOS in Kenya. The study adopted a descriptive research design approach employing quantitative data obtained from respective annual reports of SACCOs, SASRA, and other secondary sources, The population used for the study consisted of all the 163 deposit-taking SACCOs in Kenya at the end of 2019, however, to ensure an in-depth and critical analysis of the study variables; a sample of 37 SACCOs was used as computed using the Cochran sampling technique. The study employed a panel regression model for the analysis of the secondary data collected over five years (2014-2018); the results of the analysis of the secondary data revealed a positive relationship between corporate governance, external finance, liquidity management, control variable, and financial self-sufficiency whereas there was a negative relationship between loan quality, investment choice and financial self-sufficiency. Loan quality and investment choice had a statistically significant negative relationship with financial self-sufficiency whereas external finance had a statistically significant relationship with financial self-sufficiency. The study recommends that DT-SACCOs should improve their credit management policies and improve debt collection strategies so as to improve remittances thus reducing the extent of non-performing loans and improving loan quality. DT-SACCOs should seek external financing to improve their cash pool enabling them to increase loans to members and conduct other financial activities without financial distress. Lastly, DT-SACCOs should focus on core activities such as member loans and reduce investment alternatives that expose DT-SACCOs to liquidity challenges and increased financial risks.

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Abbreviations

BODs – Board of Directors

BOSA – Back Office Service Activities

CFF - Central Finance Facility

DTS – Deposit-Taking SACCOs

DT-SACCOs – Deposit Taking Savings and Credit Co-operatives

FOSA - Front Office Services Activities

FSSR – Financial Self Sufficiency Ratio

GLS – Generalized Least Squares

KUSCCO- Kenya Union of Savings and Cooperatives

LCT – Life Cycle Theory

MFI – Microfinance Institution

OER – Operation Efficiency Ratio

PEARLS – Protection, **E**ffective financial structure, **A**sset Quality, **R**ates of Return and Cost, **L**iquidity, and **S**igns of Growth

POR – Pay-out Ratio

SACCO - Savings and Credit Co-Operative

SASRA - Sacco Societies Regulatory Authority

S**PSS** – Statistical Package for the Social Sciences

SSA – Sacco Societies Act

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Dedication

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CHAPTER ONE
INTRODUCTION

This research consists of five main sections to ensure a chronology of the presentation of the dissertation. The first chapter provides a background of the study giving a historical framework of the SACCO industry, a discussion of the factors that contribute to SACCO self-sufficiency under discussion, the challenges of SACCO self-sufficiency, problem statement, research objectives, research scope and a justification of the study. The second chapter presents the theoretical framework, empirical literature review, summary of the empirical review and research gap, conceptual framework and the operationalization of the research variables. The third chapter outlines the research design, the philosophy of the study, population and sampling, data collection, data validity and reliability, data analysis techniques and ethical considerations. Chapter four presents the results of the data analysis whereas Chapter five offers insights into the findings, conclusions and recommendations of the study.

1.1 Background of the Study

A Savings and Credit Cooperative Organization is a member-based financial services institution that serves the purpose of mobilization of savings and deposits from members and advancement of credit to their members at competitive, fair, and reasonable interest rates (Mmari & Thinyane, 2019)**.** Financial transactions consisting of savings and offering credit facilities are integral in the financial services industry and as such; SACCOs are normally referred to as financial cooperatives. The cooperatives serve a significant gap in the financial systems market through a sustainable financial model premised on reaching an undeserved but bankable client base with a prudent financial offering, by using the member resources and savings first criteria to credit discipline (Henock, 2018). In Kenya, the SACCO movement has transformed in the last four decades and plays a crucial role in financial inclusion.

1.2 Background of Kenyan SACCO Movement

The cooperative movement in Kenya started in the year 1908, the first cooperative – Lumbwa Farmers' Cooperative Society - was started with the key purpose of marketing cereals, foods and dairy products (Ototo, 2017). Over the years the SACCO sector has metamorphosed in diversity of purpose and experienced tremendous growth in regard to the number of SACCOs registered,

registered members and the total savings. In 2010 the cooperative movement in Kenya was ranked the most vibrant in Africa, and seventh in the world (Muriuki & Ragui, 2013). As of 2018 the deposit taking SACCOs had assets of Kshs 497.28 billion, issued loans Kshs 373 billion, capital reserves of Kshs 92 billion, core capital of Kshs 78 billion and total income reported in that period stood at Kshs 69 billion (CBK, 2018). According to KUSCCO, there are more than 14,000 cooperative societies of which about 5,000 are SACCOs.

Table 1 1.2 Licensed DT-SACCOs for year ended 2019

Licensed DT-SACCOs	DT-SACCOs with full licenses but with conditions attached	Licenses not renewed and ceased to undertake business for ensuing year.	New License
172	12	3	1

The DT-SACCOs with conditional licenses were flagged by SASRA and are operating with such conditions attached ranging from compliance issues such as failure to meet liquidity thresholds, capital adequacy and corporate governance rules (SASRA, 2019b).

In Kenya SACCOs operate under the co-operative societies Act of 2008, consequently the SSA recognizes two forms of business that undertake the SACCO business, deposit taking business and the non-deposit taking business (Laws of Kenya, 2008a). The distinguishing nature of these two forms of SACCOs is the nature of deposits that are involved, the deposit taking SACCOs (FOSA) receive withdrawable deposits from members that can be accessed by a member on demand at any time without the member losing membership in the SACCO (Justus, 2010). This signifies a similar characteristic of savings in commercial banks. Non-deposit taking SACCOs (BOSA) have non-withdrawable deposits received by the SACCO society from its members, this is mainly used as collateral for advanced credit facilities. These deposits are only refundable upon the member exiting the SACCO less any credit facilities advanced during the membership period (SASRA, 2019b).

In Kenya the laws that govern SACCOs are enshrined in the Cooperative Societies Act (CSA). The CSA deals with registration of SACCOs, incorporation of SACCOs and supervision of all cooperative societies. However, the legal framework which guides the supervision of deposit

taking DT-SACCOs is provided by the SACCO Societies Act, it also provides the legal mechanisms for regulation of the deposit taking SACCOs in line with international standards (Laws of Kenya, 2008a). The DT-SACCOs have a dual supervisory framework. Deposit taking SACCOs regulated by SASRA therefore operates under a defined set of guidelines to ensure safety of member deposits; however, this is not the case for non-deposit taking SACCOs in Kenya mainly operating under Cooperative Societies Act (CSA) guidelines (SASRA, 2019b).

SACCOs are required by law to file audited financial reports annually (Laws of Kenya, 2008b). Although most SACCOs adhere to this guideline, financial statements have shortcomings, they are subject to fraud, non-coverage of non-financial issues and do not provide a predictive value of the future. In order to ensure financial transparency, SACCOs are required to ensure timely financial reports and their external auditors should be re-evaluated for possible replacement every three to five years through a competitive and fair bidding process (Kivuvo & Olweny, 2014). According to the going concern principle, financial statements are drawn up on the basis of the assumption that the underlying entity will exist into the foreseeable future. It is on this basis that an entity's financial statements are thus prepared and submitted to external auditors to express their opinion (Wang'ombe, 2017).

The vast legislation and regulations enacted ensure protection of member funds, building confidence and ensuring there is adequate transparency. The SACCOs sector stability has a key impact on the long-run economic prosperity through its role in efficiency of financial services intermediation. SACCOs also allow for monitoring of the users of external funds and productivity of capital employed. In the long run this impacts the volume of savings in an economy and the income generating capacity (Kivuvo & Olweny, 2014). In this regard, regular financial review of SACCOs is crucial because they hold an integral position in the country's financial system. In 2012 SASRA adopted the CAMELS SACCO performance rating approach in evaluating the financial self-sufficiency of a SACCO, the effectiveness and efficiency of the approach is yet to be proven since difficulties have erupted in its application. In the recent past, even with consideration of the regulations put in place as well as the rating framework there have been observations of stability concerns; this calls for further investigations into the subject.

1.3 SACCO Self-sufficiency

Financial inclusion is key in bridging the gap in social-economic development. Since a big proportion of Kenyans in the rural areas are unbanked, micro-finance institutions and SACCOs play a great role in ensuring the population can access financial services (Muriuki, 2019). In this light, government intervention through streamlining the microfinance industry is viewed as one of the policy resolutions used by the government to leverage the financial economy (Wafula, 2016). To ensure a sustainable economy the financial institutions operating in the microfinance sector need to be financially sustainable (Hartarska, 2009). There exists a direct relationship observed between the financial health of the microfinance industry and the economic empowerment of a nation. The knowledge thereof of the underlying determinants of the financial self-sufficiency of a SACCO are therefore essential not only to the managers of the organization but also to various stakeholders, such as regulatory authorities, policymakers, the central bank and the government (Yunus, 2010). The key measure of sustainability in the financial service sector is financial self-sufficiency.

In order to ensure the self-sufficiency of SACCOs in Kenya, SASRA has over the years highlighted the four key areas that DT-SACCOs must ensure proper compliance. These areas encompass: ensuring adequate liquidity, maintaining liquidity is deemed important for ensuring that SACCOs are in a position to issue member loans, pay operating expenses and settle financial obligations. Secondly, there is the need for capital adequacy, thirdly, the need proper corporate governance rules adherence and lastly the need for proper management of remittances with respect to non-performing loans (SASRA, 2019b).

1.4 Financial Self-sufficiency

Financial self-sufficiency is the capacity of an organization to exist viably, which means that it can pay for operational, transaction costs, financial costs, and other costs into the foreseeable future (Brau & Woller, 2004). Financial self-sufficiency is also defined as the underlying lender's ability to operate over considerable periods measured in decades independent of government subsidy or donor and altruistic support (VonPischke, 1996). For SACCOs to be considered financially sustainable in the long term, they must be in a position to cover all their financial costs, maintain

a constant return on capital and operate into the foreseeable future without the need for subsidy (Mutiso, 2019).

There are two key types of financial sustainability measures than can be used in assessing DT-SACCO sustainability; financial self-sufficiency and operational self-sufficiency (Meyer, 2002). Operational financial self-sufficiency is the ability of a financial institution to cover operating expenses that may include – office consumables, supplies, loan losses, salaries, and other administrative costs - from income generated internally or externally including soft loan expenses, subsidies, and grants, this is measured using either the operation efficiency ratio (OER) or pay-out ratio (POR) (Balkenhol, 2007). The OER indicates a SACCO's ability to raise regular income internally that will be used into the foreseeable future for operational costs whereas the POR indicates the ability of a SACCO to continually raise wealth for its members (McKillop et al., 2011). On the other hand, financial self-sufficiency –a high standard measure - considers the capacity of a financial institution to cater to all financial and operational costs from its internally generated earnings, therefore all other externally generated income is excluded (Quayes, 2012). It is measured using the financial self-sufficiency ratio (FSS), which is a ratio of the organization's adjusted revenues to adjusted expenses, An FSS ratio above one indicates that a financial institution is thus financially sustainable whereas a ratio of below one shows that the institution is not considered to be financially sustainable.

In the Kenyan context, the financial self-sufficiency of SACCOs is questionable given the recent developments in the industry. SACCO savers risk losing billions of shillings as thousands of SACCOs are facing imminent closure resulting from mismanagement which has plunged them into financial distress (Kiruga, 2019). A recent crackdown by SASRA revealed that of the 7,300 SACCOs, 2,200 had failed the self-sufficiency test. In the coastal region, roughly half of the 1,150 registered SACCOs are not active while Nairobi County has about 683 financially straining SACCOs (Michira, 2019).

1.5 Determinants of financial self-sufficiency in the SACCO sector

Financial self-sufficiency is thus justified as the capacity of an institution to continue its operations in perpetuity; institutions deemed to be sustainable should be in a position to generate and manage resources effectively for their sustained existence. In the case of financial institutions, to maintain

financial self-sufficiency there is a need for profitability, liquidity to enable the institution to cover operational costs and surplus earnings expansion (Marwa & Aziakpono, 2015). In the SACCO sector, there are other factors in addition to profitability and liquidity that will determine the financial self-sufficiency; based on earlier empirical research, these factors include the corporate governance framework, remittances of member deposits, availability of external financing and the choice of investments (Yitayaw, 2021), (Kilemile, 2017) and (Waweru, 2018). This study is focused on evaluating these factor determinants to determine their influence on SACCO self-sufficiency.

1.5.1 Corporate governance

1.5.1.1 Corporative Governance and Cooperative Governance

In the traditional view of companies, the term corporate governance is used in reference to how companies are managed and run with the oversight of the company's board of directors; thus, the members of the board are industry experts with diverse backgrounds to ensure an effective oversight role. On the contrary, with the emergence of cooperative societies, there was the emergence of boards of directors that were sourced from the members of the SACCOs Kyazze et al. (2017), as highlighted by Mutuku (2016) there is a strong relationship between board composition and performance of SACCOs. However, studies by Ong'ure (2021) and Wangui (2019), established that lack of expertise, poor composition and lack of diversity in boards had a negative effect on financial performance. Nonetheless, majority of existing literature including SASRA reports SASRA (2019), analyze DT-SACCO management and oversight in the framework of corporate governance. Thus, this study used the framework of corporate governance to examine the management and leadership of DT-SACCOs.

According to Zinkin (2019), corporate governance refers to the set of processes, procedures, policies, and customs affecting how a SACCO is directed, managed, administered or controlled. Corporate governance also encompasses the relationship between the players involved (stakeholders), and the objectives of the SACCO ensuring goal congruence, the main players are the board of directors, the management, and the members of the SACCO (Odek & Anyira, 2017). An effective corporate governance system plays an important role in attracting investment, raising funds and strengthening the financial self-sufficiency of a SACCO (Wanjau et al., 2018). It is also

viewed that good governance generates member goodwill and confidence. A study carried out on the effectiveness of corporate governance showed that most SACCOs are governed through a democratic or association model that gives members the right to question the excesses of the management and board members. Despite this opportunity, most SACCOs go through losses occasioned by mismanagement raising doubts regarding the viability of this model of governance (Odek & Anyira, 2017).

Corporate governance seeks to ensure the management is transparent and efficient in discharging their duties, the board therefore, ensures an oversight role. In February 2019, the entire board of Stima Sacco was ousted, this was after an external audit revealed that the SACCO had accumulated losses of over Kshs 500 million that had resulted from suspected fraudulent transactions, creative accounting and poor investment decisions (Kiruga, 2019). A majority of previous studies as indicated above sought to examine the existence of a relationship between corporate governance and financial performance; however, the uniqueness of this study is that it seeks to explore the relationship between corporate governance frameworks employed by SACCOs and financial self-sufficiency.

1.5.2 Loan Quality

There is a series of failures by employer institutions to promptly remit deductions made from salaries and the other income to SACCOs. These failures have hampered the effective and efficient operations of various Deposit-taking SACCOs and led to the total collapse of other DT-SACCOs in 2018. Statistics collected by SASRA for the period ending 30th September 2018 showed that a total of Kshs 2.81 billion was owed by various employer institutions to just 50 DT-SACCOs. Out of these amounts, 79% were meant to settle outstanding loans and other credit facilities implying that such loans and credit facilities were in default. The compounded effect of these delayed or defaulted remittances with respect to loans leads to the perennial failure of DT-SACCOs to meet members' obligations resulting from liquidity constraints this, in turn, leads to members' apathy and loss of confidence as well as high levels of defaulted loans. An analysis done by SASRA shows that the financial self-sufficiency and existence as a going concern of some SACCOs is greatly being impaired and eroded by the delayed or total default by employer institutions in remitting loan deductions (SASRA, 2019a).

Increases in the level of non-performing loans often lead to liquidity issues. Thus, DT-SACCOs may be unable to advance member loans or have to seek alternative expensive sources of finance through bank borrowing as well as heightening provisions to cover for the non-performing loans (Ntoiti & Jagongo, 2021). Loan quality is measured as the non-performing loans (inclusive of the adjustment for loan loss provisions) divided by the total loans advanced by the financial institution. Higher delinquency levels impact negatively a DT-SACCO's loan quality, to avert this crisis, SASRA introduced a maximum delinquency ratio of 5% thus curbing the effect of non-performing loans on loan quality and by extension financial self-sufficiency (Manyuanda, 2014).

1.5.3 External financing

Lack of adequate financing has been cited by several previous studies as the major constraint impeding the growth of SACCOs. However, in recent years there has been an emergence of a number of several agencies including donors, government and commercial banks that have made available lines of credit for onward lending to SACCO members. Despite the increases in the lines of credit available, many SACCOs do not take up such alternative external financing alternatives or those that take are still not able to meet the demands of their clients for loans and withdrawal of savings (KUSCCO, 2009). Studies also show that wealth generation is hampered by poor financial practices like mismanagement of external finances, high cost of funds and undercapitalization. Overtime SACCOs have tried to address this problem by mobilizing member funds and using the same proceeds to offer credit to members, however they have not been able to mobilize enough member generated funds, and this raises the question on the role of external financing alternatives on the financial self-sufficiency of SACCOs (Onyango, 2016). This study seeks to establish the existence of relationship between external financing and financial self-sufficiency of SACCOs.

External loans play a big role in ensuring the SACCO has enough funding for loans to its members however, the study highlights that there are a number of issues that need to be addressed before conclusions can be reached regarding its effectiveness (Fiorillo, 2006). In the case of SACCOs with weak management structures, wholesale lenders are most likely doing more harm since the weak management and ineffective governance mechanism may lead to loss of funds.

1.5.4 Liquidity management

In the SACCO sector liquidity is a major concern as they need to balance savings and loans, in 2019 Cooperative bank agreed to bail out Metropolitan National Sacco which had been experiencing liquidity issues in the recent period. The SACCO was facing liquidity constraints due to non-performing loans amounting to $ 9.3 million, this enabled the SACCO to re-launch its debit card, personal checks and other partnerships. The SACCO then consented to a corporate restructuring to better manage members' monthly loan demands and overall liquidity flows(Systems, 2019).

Liquidity management is viewed as one of the key challenges and concerns facing the modern day SACCOs, A SACCO with good asset quality, sufficient capital base and superior earnings may still fail if it does not maintain proper liquidity (Githaka & Gachora, 2017). Liquidity is thus viewed as an important determinant of the financial stability of a SACCO as it indicates the ability of the SACCO to satisfy obligations as and when they fall due (Kimathi, 2014). SACCOs operate under the business model of converting the immediately available member savings and deposits into loans that have longer terms to maturity. However, individual member deposits are normally much smaller than the average loans issued hence requiring multiple member deposits in order to finance a loan issues which predisposes the SACCOs to liquidity risks (Obbuyi, 2014). The liquidity challenges limit the capacity of SACCOs to offer timely financial services. Poor liquidity management practices means that the SACCO will be unable to meet member savings withdrawals, member loan demands, external borrowings repayments and operating expenses (Githaka, 2017). Poor liquidity management has been the major reason for the failure SACCOs.

On the contrary a study conducted by Mulinge (2016), highlighted that even though most studies have had a shallow outlook on SACCO liquidity management as an integral determinant of financial performance of Kenyan SACCOs; a division of the liquidity management practices of a SACCO into cash flow management and contingency funding yields interesting findings. In the study cash flow management was considered as a proxy for liquidity management; the findings of the research indicated that cash flow management had a positive impact on SACCO financial performance whereas contingency funding indicated a significant positive influence. This is an indication that irrespective of the liquidity management practices implemented by a SACCO the mismatch between the short-run horizon of depositor funds and the long-run horizon of borrowers

will always result into a liquidity risk thus setting the stage for contingency funding which allows the SACCO to organize for pre-funding and estimate potential cash requirements and utilizing possible inlets of secondary liquidity sources.

1.5.5 Investment choice

The choice of investment is a key consideration for many financial institutions, this ranges from real estate to member loans. The SACCO sector is one of the major financiers in the real estate industry, playing an important role in the critical housing gap by financing land purchases and construction of residential units. A survey by SASRA revealed that 36% of outstanding SACCO debt in 2016 was used in financing land and housing projects. SACCO lending especially on development loans is not properly regulated and investments are not properly vetted. In the year 2015, Mwalimu National Sacco which was a leading cooperative spent $20.4 million for the acquisition of 75% shares in Equatorial Commercial Bank a struggling tier III lender, currently, the bank's value represents only 20% of the purchase value, this is a strong indication that the SACCO did not do proper due diligence and financial evaluation before effecting the buy. The SACCO is also currently struggling to pay a $5 million loan which was acquired from a commercial bank to aid in financing a housing project (Kiruga, 2019).

A study conducted by Mwangi (2013), on the impact of investment decisions on the efficiency of the credit co-operative societies and the DT-SACCOs in Nairobi County. The key factors of investments decisions were; loan investments, financial asset investments and lastly real estate investments. The research used a descriptive research design and data for the 43 SACCO's that were duly registered by SASRA as at the time of study was collected over the period 2010-2014. The study applied multiple linear regression on the secondary data to examine the existing relationship between investment decisions and efficiency of the DT SACCOs; the results of the research revealed that there was a positive relationship between the two variables, however, investments in the loan portfolio was found to have the strongest relationship given the findings of the regression equation.

1.6 Financial Self-sufficiency Challenges Faced

According to KNA (2020), fraud in SACCOs and increasing non-remittances of deducted member contributions were at the center of the increased incidences of failures among these SACCOs. Some of the cases of financial distress and failure include; the giant Moi University Sacco where previous managers mismanaged billions of shillings, Nitunze Sacco whose distress was exacerbated by the collapse of Mumias Sugar Company as members' savings and loan deductions stopped coming in, Shoppers SACCO whose member remittances worth Kshs 340 million are yet to be settled by the struggling Nakumatt Supermarket. Investigations into Harambee SACCO have revealed massive embezzlement of procurement allocations that were worth hundreds of millions while Ekeza SACCO founder was surcharged Kshs 1.05 billion for diverting SACCO funds to Real Estate as the SACCO was no longer able to conduct financial transactions to its members (Michira, 2019). The challenges discussed herein inform the problem statement of the research

1.7 Problem Statement

SACCOs in Kenya are faced with a myriad of financial challenges that in turn impact their financial self-sufficiency and continued operations. The collapse of SACCOs and the inability of some of these institutions to offer financial services to their members point toward a deeper problem. In 2018, the Kenyan government through the regulator revoked the operating license of MUSSO (Moi University Sacco) placing it under liquidation. The reasons cited for the SACCO's closure were ineffective corporate governance framework and the failure by the SACCO to maintain the capital adequacy requirements set by SASRA (15% liquidity ratio) (Ngunjiri, 2018). On the other hand, Ekeza SACCO was closed by the regulatory authorities after an increasing trend of member complaints, the authorities highlighted that the SACCO will be closed until the SACCO aligns its governance structures and ensure protection of member funds (Kariuki, 2018). Moreover, Harambee SACCO is on a disposal spree of its real estate portfolio in order to boost liquidity (Ngugi, 2021). This raises questions on the viability of investment choices and SACCO liquidity.

Galgallo (2019), pointed out that a good number of Kenyan SACCOs are struggling to ensure there is adequate remittance of contributions of deposits and loan repayments, maintaining adequate liquidity, proper governance structures and good investment decisions, with the combination of

these factors viewed as pointers to SACCO failure. The issues surrounding liquidity management, effective corporate governance, investment choices, loan quality and external finance raise questions on the contribution of each of these elements to the likelihood of SACCO failure. Furthermore, this has raised the concern of how members, regulatory bodies and other stakeholders can determine if a SACCO is financially sound. An investigation into these factors simultaneously is a crucial step in determining which factors are most important with regard to self-sufficiency and which factors are the most sensitive.

Existing empirical literature explored in the literature review section of the study focused on singular investigation of the relationship between determinants of SACCO self-sufficiency and financial self-sufficiency, there is scanty multi-factor research that enables a broad evaluation of the determinants of self-sufficiency. By conducting an analysis of these factors in unison the findings of the study will help SACCO managers in determining which elements are the most crucial in ensuring the self-sufficiency of the SACCO; thus, they can focus on ensuring their policies are aligned to the more crucial determinants of financial self-sufficiency. The multi-factor approach evaluates the strength of the relationship and significance of each of the factors on overall self-sufficiency. The key impediments to financial self-sufficiency as highlighted in the literature reviewed are non-remittance of loan repayments by members' institutions, corporate governance -mismanagement and fraud-, external financing, liquidity management and choice of investments (Mumanyi, 2014).

The reviewed literature in the literature review section is inclined to the existence of a relationship between factor determinants – corporative governance, loan quality, external finance, liquidity management, investments choice and the control variable – and performance of SACCOs. In most studies reviewed performance is evaluated on the basis of profitability. Some of the SACCOs that were previously deemed profitable, have since collapsed. This raises questions on the validity of performance in measuring self-sufficiency of SACCOs. Thus, creating a need to evaluate the going concern of a SACCO using a different criterion –financial self-sufficiency-. By analysing SACCO self-sufficiency using a dependent variable other than profitability – financial self-sufficiency -; the research will develop a framework that can be used to evaluate the longevity of a SACCO and not just profitability which may be open to manipulation and may only reflect paper profits. This

study thus gives an opportunity to develop a framework for evaluating SACCO self-sufficiency for SACCO members, managers, regulatory authorities and researchers.

1.8 Research Objectives

1.8.1 General Objective

The general aim of this research is to find out the determinants of financial self-sufficiency of DT-SACCOs in Kenya.

1.8.2 Specific Objectives

i. To determine the effect of corporate governance on financial self-sufficiency of a SACCO.
ii. To determine the effect of loan quality on financial self-sufficiency of a SACCO.
iii. To determine the effect of external financing on financial self-sufficiency of a SACCO.
iv. To determine the effect of liquidity management on financial self-sufficiency of a SACCO.
v. To determine the effect of investment choices on financial self-sufficiency of a SACCO.

1.8.3 Research Questions

i. To what extent does corporate governance affect financial self-sufficiency of a SACCO?
ii. To what extent does loan quality affect financial self-sufficiency of a SACCO?
iii. To what extent does external financing affect financial self-sufficiency of a SACCO?
iv. To what extent does liquidity management affect financial self-sufficiency of a SACCO?
v. To what extent does investment choice affect financial self-sufficiency of a SACCO?

1.9 Scope of the Study

The study was focused on the deposit taking SACCOs that were registered at the start of 2008 and were still operational as at December 2019. The scope of study is all DT-SACCOs in Kenya. Since financial self-sufficiency refers to the continued provision of financial services over a period of time, a longitudinal study was conducted to assess financial self-sufficiency. The longitudinal data collected was analyzed using the panel data regression technique.

1.10 Significance of the Study

1.10.1 Regulators & Policy makers

The model will help the regulating authority to focus on the key factors that ensure a SACCO's financial self-sufficiency. This will inform the standards and policies that are set toward ensuring financial self-sufficiency of the SACCOs. Policy makers can also enact laws that ensure minimum thresholds of the elements determined by the model are met by the SACCOs to ensure financial self-sufficiency.

1.10.2 Managers

This study will inform managers on the internal factors that are key for financial self-sufficiency to prevent collapse of SACCOs; information of the ranking of the determinants of financial stability by order of importance will ensure an increased focus on the factors that ensure SACCO self-sufficiency. Managers' understanding of these determinants will help them exploit competencies towards building financially self-sufficient SACCOs for their members.

1.10.3 Investors/ Members

Investors who seek to make savings in a SACCO or persons who are interested in joining a SACCO will be knowledgeable about the key factors and a clear selection criterion on how to choose a financially sustainable SACCO to ensure security of their funds and continued access to financial services in the foreseeable future. The findings of the study will also enable existing SACCO members to evaluate the financial self-sufficiency of their current SACCOs to ensure confidence in its operations and where dispute exists, they can question SACCO board and management in the annual general meetings.

1.10.4 Researchers and Scholars

The study concentrated on the relationship between the determinants of financial stability (corporate governance, non-remittance, external finance, liquidity management and choice of investment) and financial self-sufficiency. The study employed the E-views analysis tool to evaluate this relationship while using the Cochran sampling technique to determine the appropriate

sample size for the study. Additionally, the study sought to add to the existing body of knowledge by incorporating loan quality in the independent variables where there is scanty research in its relation with SACCO financial self-sufficiency. Researchers can review the studies, and analyze the perspective of financial self-sufficiency contributed by this study while identifying areas that may provide a basis for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section of the study links existing theories to the research elements; this is the focus of the theoretical review. Moreover, to ensure proper presentation and understandability of the research; the study expounds on the factor determinants of SACCO self-sufficiency that are the focus of this study; corporative governance, loan quality, external finance, liquidity management and investment choices. Lastly, this chapter explores existing empirical studies on factors determining financial self-sufficiency of DT-SACCOs and highlights the results of various researchers in this field.

2.2 Theoretical Review

This section gives an analysis of the existing theories in accordance with the aim of the study. The research considered the life cycle theory as the overriding theory that underscores the relationship between determinants of self-sufficiency and financial self-sufficiency. The following is an outline of the different theories of financial self-sufficiency that were considered in the study.

2.2.1 Life Cycle Theory

The Life cycle hypothesis was developed by Franco Modigliani in 1957. Life cycle theory has been applied to illustrate the growth and development of firms from their establishment until maturity (Castro et al., 2014). It also seeks to explain development of a product from market introduction, growth of sales, maturity of product and sales stagnation to a declining trend in sales (Porter, 1998). Life cycle theory as a concept observes how entities are started, grow in operations, mature in the offering and eventually face decline or extinction; at each and every stage most of these entities share a set of common growth, development, management styles and financing decisions (Marc de Soussa & Brad, 2005).

The life cycle theory provides an insight on MFI growth toward financial stability. This growth involves the use of external funds -which is private capital invested by members or through

financial intermediaries- in sound management, financing operations, charging of interest on loans, reduced operating costs, low portfolio risk, improved outreach and stability of the institution (Marc de Soussa & Brad, 2005). However, it is notable that not all micro-finance institutions follow the same path; the growth of commercial MFIs is constrained by imperfect business models, competition and operational challenges (Bayai & Ikhide, 2016a). On the contrary unlike retail banks which receive customer deposits and can easily raise cheap financing through inter-bank borrowing, micro-finance institutions in their growth trajectory will experience capital and funding requirements change: to ensure sustainable operations and consistency in financial services there is increased leverage and sources of funding become more diverse, more commercial and more sustainable (Greathouse & Schneider, 2004).

Additionally, the implementation of an information systems software allows for the collection of deposits, screening of new borrowers to reduce the risk of default and in the collection of repayments. Innovative mature MFIs invest in cost efficient information systems thereby improving their data collection and decision making capabilities regarding loans and capital requirement needs thus contributing to financial stability (Reinke, 1998). The use of information systems has the advantage of enabling the MFI to explore the funding options for MFIs mainly through increased sale of shares, borrowing, and attraction of customer deposits. The use of information systems which enables close communication and data exchange with clients has led to improved loan repayments has also been exhibited as savings can be used to settle outstanding loans, better governance as per statutory regulations, external outreach, leveraging and the avoidance of working capital challenges (Campion & White, 1999).

The factors discussed above are integral for financial self-sufficiency; one can therefore conclude that as an institution grows it advances in diverse financing aspects thereby ensuring its financial self-sufficiency. The concept of life cycle theory can be explored by SACCOs in various ways to ensure they prolong their growth cycles thus delaying maturity, decline and possible decline. Based on the lifecycle theory, SACCOs can be aware of the need for; future external financing sources to sustain lending and other SACCO activities, technical innovation and the creation of information systems to enhance collection of remittances and loan appraisals. In addition to this the life cycle theory can be adopted and modelled to inform on the SACCOs cash needs at different levels on the life cycle thus averting chances of liquidity crises (Mariger, 1987).

2.2.2 Agency Theory

The agency theory was developed by Jensen and Meckling in 1976; the theory was based on an attempt to shed light onto the separation of ownership and management of a company which leads to a conflict of interest between the owners of the firm – shareholders and the managers of the firm – managers; this conflict majorly resulted from the possible lack of congruence between shareholder interest and the managers' interests (Jensen & Meckling, 1976). Existing studies have delved deeply in the studies around Agency Theory with certain studies determining ideal mechanisms that can be employed to control the powers of the managers in the jointly held firms (Panda & Leepsa, 2017). In a limited liability company, the corporation is owned by groups or individuals in the form of equity and the stockholders (principals) delegate management authority to the stewards (agents) to manage the entity on their behalf. The major problem is whether managers are performing in their own interest or for the principal (Jensen & Meckling, 1976).

According to Javaid & Javid (2017), previous studies have proposed numerous mechanisms that can be used in controlling the excesses of management activities for example; the agency theory highlights the role played by debt in aligning the management's effectiveness to the expectations of the entity owners. The use of external financing; especially debt by MFIs increases the management's affinity to profitability and cost efficiency. Given this mechanism, the agency theory poses that leverage acts as a useful corporate governance mechanism since it guards against wasteful management by the risk of liquidation in the event that the firm managers are unable to manage operational costs and make sufficient profits to cover for financial costs. A number of studies are in agreement with this analogy citing that this mechanism of leverage puts responsibility on the management to continually generate earnings and cash flow to meet the organization's debt obligations (Bayai & Ikhide, 2016b).

However, critics opine that the positivist approach only concentrates on the agent side of -the principal agency problem- whereas the problem could also occur from the principal. The principals are viewed as opportunistic since they exploit their agents giving them a perilous work environment without any scope for encroachment. Given good working conditions humans are considered as noble creatures and will work ethically in order to realize a better performance for the entity (Perrow, 1986). This argument has been used extensively in finance studies and has led to the prominent stewardship theory. On the other hand, Behavioral agency theorists argue that

agency theory is only focused on the on the principal agent conflict, agency cost and the realignment of both the parties' interest to minimize the agency problem. This model recommended some modifications to aspects such as agent's motivation, risk averseness, time preference and equitable compensation. The key argument being that, agents are the main component of the agency relationship and their performance mostly depends on their motivation, ability and opportunity (Wiseman & Gomez-Mejia, 1998).

The key limitation of the agency theory is the assumption that sub-contracting can help to eliminate the agency problem. However, this may lead hindrances such as rationality, information asymmetry, fraud and transaction costs. This theory considers the managers as opportunistic and ignores the competence of the managers (Morck et al., 1988). Thus, the agency costs of monitoring the management's activities may outweigh the gains. Such agency costs may be large in the microfinance industry since Microfinance Institutions are by their very nature opaque with regards to access to information making it an interesting research area (Hudon & Traca, 2011).

The agency relationship clearly outlines the expected mode of operations of the managers in regards to their duty to the SACCOs stakeholder; managers are therefore considered to have a fiduciary duty. In order to ensure effective governance and proper steering of SACCOs, there is need for the creation of robust systems and structures around the Agency relationship so as to act as a guide and provide checks and balances to SACCO managers. This can be modelled in the form of articles of association and robust comprehensive contracts. The Agency theory thus informs a key area of ensuring SACCO self-sufficiency through appropriate mechanisms of corporate governance thus limiting the extent of fraud and mismanagement. In addition to this the use of external finance offers a check on management efficiency; thus, the agency theory can equally model this relationship.

2.2.3 The Profit Incentive Theory

The profit incentive theory posits that the use of commercial funding at any stage of the development of the microfinance institution enables it to meet the microfinance purpose (Bogan, 2012). The use of commercial funding; raises cost consciousness, efficiency and organization outreach. In concurrence with the institution paradigm, the profit incentive theory agrees that donor funding is limited and cannot finance a big-scale microfinance institution given its increasing

demands. The theory further explains that microfinance institutions pursuing profits strive to minimize operational costs while maximizing revenues, in a bid to cover expenses and build on surpluses. The microfinance institutions that are funded by donor, grants or government subsidies do not respond to cost minimization and profit maximization pressures. Such institutions opt for other measures such as outreach depth over efficiency by serving the poorest and rural clients which presents higher lending costs (De Aghion & Morduch, 2004).

Economics and Accounting have different definitions of the concept of profit, this section provides an analysis of the two concepts and their link with the self-sufficiency of MFIs. In economics, profit is what a firm can spend or distribute during a period and is still left with the initial capital, it takes into account the unrealized gains or losses in the market value of assets and liabilities. Economists therefore equate income to profits or earning (Bodie et al., 2008). Unlike the economists, accountants consider profit as the book value and not the market value hence they do not account for the unrealized gains or losses**.** In the accountant's view profit and income earnings are not the same, profit is whatever remains after costs have been accounted for also referred to as the residual theory (Glautier & Underdown, 2001). The accounting outlook also defines profit as the net income (Edmonds et al., 2018).

However, in the microfinance sector, the profitability of an MFI can be associated with its financial self-sufficiency also proxied as financial self-sufficiency, in a non-profit organization this considered as the equivalent of profitability (Nzongang & Nishimikijimana, 2013)**.** All other factors held constant, profit can be considered as the main variable in measuring the financial self-sufficiency of a firm (Glautier & Underdown, 2001).

In addition to this, capital maintenance considers profit as the residual amount available for distribution when capital is maintained at the initial level. This concept of capital maintenance can also be used to explain the concept of income (Hicks, 1975)**.** Given the concept of residual income, profitability can therefore be financial self-sufficiency. Microfinance institutions which survive on income purely generated from operations -without grants, donations and government incentives- and try to achieve higher level of operations can use profitability as a measure of financial self-sufficiency. This will result, in the MFI being considered a going concern or financially sustainable (Prakash, 2016). Previous research suggests the need to use accounting profit in the measurement criteria, however, it is important to note that this assumption only holds if the MFI is considered

as a going concern aiming for greater levels of profitability or operational efficiency. Thus, using one year or a few years of performance may not justify the cause.

Since every financial institution exists to pursue profits and ensure consistent lending into the foreseeable future, analyzing SACCO self-sufficiency from a profit perspective is viewed as imperative. The profitability theory is reflected in SACCO determination to ensure profitability through engagement in different investment choices such as member loans, development loans (Real Estate), bonds and securities purchases. In addition to this SACCOs are interestingly keen on sourcing for funds from other sources in the form of external financing with the aim of obtaining profits through the interest rate spread. Lastly the profitability theory is also evident in the balance sought by SACCOs by constantly evaluating the liquidity versus profitability tradeoff to ensure the SACCO is able to maintain good profits without eroding liquidity.

2.2.4 Overriding Theory

The chosen theory that will inform this study is the lifecycle theory. The gist of the life cycle theory is that as an organization, firm or SACCO matures it is in a better position to discharge its duties more efficiently and effectively. In this sense, the expectation is that older SACCOs (by age), large member base and a large asset bases (which for this study constitute the control variables) inform the capacity of a SACCO to be run effectively and efficiently. Thus, in regards to financial self-sufficiency, the expectation is that mature SACCOs will exhibit better corporate governance practices, better management of remittances, optimal investment choices, access to external finance and lastly better liquidity management practices. This study will thus be geared toward exploring the validity of the life cycle theory among the Kenyan Deposit-Taking SACCOs.

2.3 Definition of Concepts

2.3.1 Financial Self-sufficiency

To ensure financial self-sufficiency an organization needs to have efficient financial operations, make profits, maintain adequate liquidity and to be able to overcome the challenges associated with bankruptcy. For the purposes of this study financial self-sufficiency was measured using the FSS ratio, which measures the ability of a SACCO to cover all its operational and financial costs from its internally generated income (Quayes, 2012).

2.3.2 Corporate Governance

Corporate governance is defined as a system in which an organization is directed and controlled in order to make it more accountable to its stakeholders (Hassan & Ahmed, 2012). It also represents the way in which power in an organization is exercised mainly through the management structure and how assets and other resources are managed so as to satisfy the needs of all the stakeholders. Corporate governance can be measured using three key components namely; board size, board independence and the audit committee (Andreou et al., 2014). These are the components that were used for the purpose of this study. The board size constitutes the number of directors on the board; the board independence is measured by the number of non-executive or independent directors while the audit committee constitutes the number of Audit committee members of a SACCO.

In order to achieve financial self-sufficiency, SACCOs need to adopt three main pillars of corporate governance namely; first is determination of the objectives of the organization – successful companies have directors who know where the firm is headed and what it needs to do to get there, board members know their duties and are held accountable for their actions (Hasselgren, 2010).Secondly the existence of an effective governance culture – an organization which observe good corporate governance standards should not have a dominant chief executive officer and a weak board chairperson, this involves recognizing and respecting the rights of all the groups in the organization-. Third is transparency and effective compliance – transparency involves the ability to assess management with ease, the board of directors should ensure that the organization remains solvent and is compliant with all rules and regulations by which the industry is governed, this may include but is not limited to, industrial relations, tax issues, risk management and thresholds set by the regulating authority (Otieno et al., 2015).

This study used the elements of corporate governance; board size, independence, audit committee, the objectives set by the executive, effective governance and transparency as variables in the measurement of the effect of corporate governance on the operational or financial self-sufficiency of SACCOs.

2.3.3 Loan Quality

Non-remitted deductions are in the form of either loan recovery deductions or on the other hand, deductions due towards the non-withdrawable deposit accounts (popularly known as BOSA

deductions) (SASRA, 2019a). For the purpose of this study, the study examined the amounts of loan facilities not remitted by employers to SACCOs, the loan quality was measured as the proportion of non-performing loans adjusted for loan loss provisions against the total loans disbursed by the DT-SACCO (Mombo, 2013).

2.3.4 External Financing

External financing is defined as an organization's financing element that comes from somewhere else but does not result from the organization itself (Ondieki et al., 2015). Another consistent definition is that, it is part of the total debt in a business that is owed to outsiders (Saleemi, 2009).In Kenya the providers of external finance include; commercial banks, donors, the government of Kenya: cooperative stakeholders such as the Kenya National Union of Cooperatives (KUSCCO), Cooperative Insurance Company (CIC), Africa Confederation of Cooperatives and Credit Associations (ACCOSCA) and World Council of Credit Unions (WOCCU); other SACCOs; and international financial institutions such as the world bank and IMF (Pandey, 2005).

For the purpose of this study, external debt is defined as that part of a SACCO's total debt that is owed to other cooperatives, commercial banks, national and international institutions. This study examined the financial statements of the SACCOs and extract the portion of their debt that qualifies as external financing given the above definition. The variables under external finance that were measured include; financing from financial institutions, donors, government and how this affects the operational or financial self-sufficiency.

2.3.5 Liquidity

Liquidity refers to the ability of an entity to fulfill its financial commitments as and when they fall due (Kimathi, 2014**).** Effective liquidity risk management enables a SACCO to meet its cash flow obligations as they fall due, which are uncertain since they are affected by other stakeholder's behavior and external factors (Song'e, 2015). Liquidity is essential in all SACCOs to ensure customer withdrawals, provision of funds for growth and for compensation of balance sheet fluctuations (Njeri, 2013). For these reasons Liquidity is an important indicator of financial stability in a SACCO society.

According to Ondieki et al. (2015), liquidity ratios such as the current ratio, quick ratio and cash ratio are the key measures of the liquidity of SACCOs. The current ratio; measures the ability of a SACCO to meet short terms obligations, the higher the ratio the higher the liquidity. The Cash ratio measures the extent to which a SACCO can quickly liquidate assets or securities to cover short-term liabilities, this is of key interest to creditors of the SACCO. The quick ratio measures the ability of a SACCO to meet its short-term obligations with its most liquid assets. Measures of liquidity (current ratio, quick ratio and the cash ratio) were evaluated as independent variables and their effect on the operational or financial self-sufficiency.

2.3.6 Investment Decisions

Investment is the outlay of an amount of money with the expectation of getting future returns which more than compensates for the original amount, deferred consumption plus a premium to cover risk, interest foregone and inflation (Kimathi, 2014).

In decision making, companies are always presented by a set of alternatives and have to choose the best option. This is explained by the decision-making theory which is concerned with the identification of the best decision to take. Decision making may involve further mathematical computations and financial analysis to analyze and explain the relationship between variables, coupled with the capacity in terms of assets and liabilities companies can be able to make the best decision (Rotich et al., 2016).

SACCOs are presented by four key investment alternatives; investment in development loans (Real Estate) – these assets maybe physical such as real estate or machinery, intangible or financial investment -, lending to members of SACCOs, FOSA activities – this constitutes financial investments – and lending to the government. The study evaluated the relationship between these variables and their effect on the operational and financial self-sufficiency of SACCOs.

2.4 Empirical Review

The empirical review focused on previous research in the areas of corporative governance, loan quality, external finance, liquidity management and investments choices with their effect on financial self-sufficiency. The empirical review involved researches in the global spectrum, regional and the Kenyan perspective.

2.4.1Regional Spectrum

A study was conducted by Yitayaw (2021), in Eastern Ethiopia on the factors that affect profitability and financial self-sufficiency. The study used a sample of 43 SACCOs whose panel data was for the period 2015 to 2019, the study further employed a quantitative, explanatory research design approach using secondary data that was collected from the annual reports of the respective SACCOs in the study. The results of the study revealed that the SACCOs were financially sustainable but not profitable. The results indicated that the loan-deposit ratio, managerial efficiency and deposit mobilization have a statistically significant positive effect on SACCO profitability whereas operational efficiency had a negative effect. On the other hand, active members and leverage ratios were found to have a positive impact of SACCO self-sufficiency. On the contrary, size and operational efficiency were found to have a statistically significant negative effect on self-sufficiency.

A study conducted by Semaw Henock (2019), examined 46 SACCOs in Eastern Ethiopia with the focus of evaluating their self-sufficiency, the research employed both a causal and descriptive research design using secondary data from the audited financial reports. The findings of the study revealed that the SACCOs in Eastern Ethiopia have a moderate outreach level and are financially sustainable, the findings herein are similar in those by (Yitayaw, 2021). According to the study, the key determinants of financial self-sufficiency in SACCOs are: operational efficiency, donations, debt to equity ratio, deposit mobilization and the return on assets.

Contrary to the self-sufficiency of SACCOs in Ethiopia, a study by (Said et al., 2019) assessed the financial self-sufficiency of Islamic SACCOs in the Tanzanian context revealed that the IMFIs were not financially sustainable. The study revealed that in this context, the main factors that inform financial self-sufficiency include; responsible members of staff, member education, review of financial guidelines, co-operation between management and staff as well as trainings. Moreover,

the study found that the single income model of these SACCOs of charging members was a key contributor of unself-sufficiency with the main practical implication of the study being that the Islamic SACCOs should explore other sources of income. The study used audited financial reports of the SACCOs over the period 2010-2014.

2.4.2 Corporate governance and SACCOs' financial self-sufficiency.

An examination done by Kimenju (2016) on the relationship between corporate governance and financial soundness of licensed deposit taking SACCOs in Kenya revealed that; board responsibility, transparency, disclosure and internal controls had a positive significant effect on financial soundness of SACCOs. Questionnaires were administered to the senior managers and CEOs of the SACCOs and regression analysis was used to establish the relationship of corporate governance on the financial soundness of the SACCO. In terms of ranking according to their role in financial soundness, internal controls were found to be most significant while board responsibility was found to be least significant. Questionnaires were administered to the CEOs and senior management of the SACCOs while financial soundness was measured using PEARLS monitoring system. Regression analysis was used to establish the relationship between corporate governance and financial soundness of the SACCOs, multiple regressions showed that the variations in the financial soundness were explained by the three independent variables.

A study conducted by Kivuvo & Olweny (2014), on the relationship between corporate governance and financial growth of savings and credit co-operatives revealed that board leadership, financial performance disclosure, corporate social responsibility and compliance with legislation predict financial growth of SACCOs. The study targeted 31 SACCOs operating in Kirinyaga County, 327 members of staff of staff were identified as the population of study, drawing a sample of 104 respondents. The primary data was collected through the administration of questionnaires and data was analyzed using a multiple linear regression model. The study further recommended that the SACCOs should adopt sound financial reporting and disclosure systems through adoption of universally accepted standards.

A study by Mwendia (2018), on corporate governance practices and financial performance of deposit taking SACCOs in Nairobi County revealed that board gender mix, education level, ethnic mix, accountability and transparency have a strong positive correlation with SACCO financial

performance while board size portrayed a negative correlation with SACCO performance. The study used primary data collected through questionnaires while secondary data was obtained from financial reports filed with SASRA. The data was analyzed using SPSS-22 statistical analysis software and a correlation and regression analysis was carried out. The study findings had a strong indication that corporate governance practices influenced the financial performance of deposit taking SACCOs in Nairobi County and recommended a more intense application and deeper entrenchment in the culture of SACCOs.

A study conducted by Odek & Anyira (2017), focused on establishing the role of corporate governance elements; board composition, number of non-executive directors and leadership on the financial performance of SACCOs. The study employed a causal research design approach and used both primary and secondary data, further utilizing the Pearson's correlation to analyze the relationship between the variables. The study established that the elements of board composition, non-executive directors and leadership had a significant positive influence on financial performance of SACCOs. Gichuru (2011) in his evaluation of the relationship between corporate governance and financial performance established that the SACCOs in Lango sub region failed to uphold good corporate governance practices and this in part contributed to the poor financial performance of the SACCOs; the study found a strong positive relationship between the two variables. The primary data for the research was collected using the questionnaire approach and the data analyzed using regression analysis.

2.4.3 Loan quality and SACCOs' financial self-sufficiency.

Most of the previous research done in the area of loan quality is skewed to the relationship between non-remittances (non-performing loans) and the performance of SACCOs. Research findings on the effects of non-remittances of members' deduction by employers to the savings and credit societies show that it has a negative impact on performance (Kiai et al., 2020). A study conducted in Nairobi province employed primary data that was administered using semi-structured questionnaires and secondary data was obtained from the Ministry of Cooperative Development registry. Data was analyzed using SPSS and research findings were presented using pie charts tables and graphs. The findings revealed that 64.3% of the SACCOs studied experienced the problem of non-remittances which impacted performance negatively, some of the effects include

inability to give loans, inability to pay dividends and salaries. As such members are likely to lose confidence and withdraw further damaging a SACCO's liquidity position (Kigiri, 2007).

Failure to submit the corporative deductions by employers with respect to loan payments pushes SACCOs into a serious liquidity crisis position since they are unable to meet their duties as, financial institutions, of giving credit facilities to its members and offering other on demand services (Helm, 1968). On the other hand, non-remittances affect loan disbursements as there is low liquidity, in case the SACCO has funds, favoritism will be experienced in disbursements. When loans are based on corrupt dealings and not merit, high default rates and high recovery costs become a norm, in the long run members who intend to withdraw savings or dispose shares are unable to (Maina & Kibanga, 2004).

Existing research on the effect of non-performing loans on financial performance is focused on the banking sector, with studies by Kabiru (2002) Kalani (2004) and Kanyiri, (2005) establishing an inverse relationship between non-performing loans (loan quality) and financial performance. Alternatively, a study by Mombo (2013) established that non-performing loans in DT-SACCOs account for a high proportion of the variations in the profitability of these DT-SACCOs. Increases in the non-performing loans erodes the non-performing loans provisions exposing the financial institution to financial distress. Existing studies have focused on non-remittances, non-performing loans with respect to banks and profitability leading to an existing gap in the evaluation of loan quality and the financial stability of DT-SACCOs.

A study conducted on the effect of non-performing loans on the financial performance of SACCOs focused on thirty licensed DT-SACCOs in the Mount Kenya region. The study collected both primary data and secondary data, with the primary data sourced through self-administered questionnaires whereas secondary data was collected from the audited financial reports of the DT-SACCOs, the study used descriptive and inferential statistics for the study. The finding of the study indicated that there was an upward trend in the non-performing loans leading liquidity challenges and in turn having a negative influence on financial performance. The study recommended enhanced credit policies to avert the negative effects (Duncan et al., 2015).

2.4.4 External financing and SACCOs' financial self-sufficiency.

A research study done to establish the effects of external financing on the growth of SACCOs' wealth in Nairobi County revealed that; it was possible to finance non withdrawable capital funded assets and to provide cushion so as to absorb losses and impairment of member savings. In the event that that SACCOs face the emergence of unexpected risks then the growth of the SACCOs' wealth would ensure the self-sufficiency of the industry. The major conclusion was that SACCOs can easily access external finances and invest such in profitable opportunities, when properly invested external financing becomes a catalyst for growth. This coupled with proper management of equity ratios would ensure that liquidity gaps are financed hence enhancement of the stability of SACCOs. This research employed a descriptive research design. Primary data was collected by the use of questionnaires while secondary data was collected by use of document review guide. Data was analyzed by the use of both descriptive and inferential statistics, SPSS and Microsoft Excel were used to analyze the data (Onyango, 2016).

A study conducted in 2018 to establish the effect of capital structure on the financial performance of Deposit-taking SACCOs revealed that debt has a negative and statistically significant effect on the financial performance of Deposit-taking SACCOs, the effect of external debt was found to be positive and statistically significant while the effect of liquidity was found to be negative but statistically insignificant. The dependent variable was measured using return on assets. The study was anchored on the pecking order theory and adopted a causal research design employing quarterly quantitative secondary data for the 176 DT SACCOs in Kenya for the period 2012-2016. The data was collected from SASRA registry comprising of audited financial statements and quarterly reports submitted by the DT SACCOs. The findings of the study recommended that DT SACCOs should limit the amount of debt in their capital structure since high levels of debt reduce profitability. The study also recommended that DT SACCOs should aim at onboarding more members to increase share contributions as a way of raising capital (Mwatu, 2018).

A study done on the effect of external financing on financial performance of savings and credit cooperatives in Kisii Central District in Kenya revealed that 88.9 % of the sampled SACCOs had received external financing, the findings further established that financial performance was influenced by financing and investment choices. A descriptive survey design was used for the study with a target population of 243 comprising board members and management staff.

Proportionate random sampling was used to obtain a sample of 100 respondents and a semi–structured questionnaire was used to collect qualitative data from the SACCOs. Both qualitative and quantitative data analysis techniques were employed (Ondieki et al., 2015).

Njagi et al. (2017), evaluated the effect of debt capital on the financial performance of SACCOs, the study used secondary data from the annual reports and employed descriptive and inferential statistics. Using the SPSS statistical tool, the study established strong positive relationship between the use of debt capital and financial performance. The study recommended the use of low-cost debt capital by SACCOs for expansion strategies and financing of short-term liquidity shortfalls.

2.4.5 Liquidity Management and SACCOs' financial self-sufficiency.

A study conducted on the influence of liquidity management practices on the profitability of deposit taking SACCOs in Kakamega County revealed that; liquidity risk management practices, liquidity decision, and liquidity monitoring and cash management practices have a significant influence on the profitability of deposit taking SACCOs in Kakamega County. Liquidity management practices accounted for 66.3% significant variance on profitability. The study recommended that DTs should implement prudent measures to ensure effective monitoring of liquidity. This study adopted a descriptive survey design, respondents comprised of accountants, risk and audit managers, finance managers, credit and front office service managers. Primary data was collected using structured questionnaires. Validity of the data was achieved through expert opinion while reliability was achieved through Cronbach alpha (>0.7). Quantitative data was analyzed using descriptive statistics while Pearson's Product Moment Correlation Coefficient and Multiple Linear Regression analysis with aid of SPSS to generate inferential statistics (Mwashi & Miroga, 2018).

A Research published in 2018 on the effect of liquidity management on liquidity of savings and credit co-operative societies in Kirinyaga County, Kenya established that the effect of liquidity management, net cash flows, credit lending and investment in non-core business on liquidity of SACCOs was positive and significant. The study hence concluded that it was critical for SACCOs to have adequate liquidity in order to ensure they meet maturing short-term obligations. The study employed a descriptive survey research design with a target population of 60 registered SACCOs of which a sample size of 18 SACCOs was drawn through stratified random sampling. Primary

data used in the study was collected using self-administered semi-structured questionnaires while secondary data – audited financial statements of SACCOs – was obtained from SASRA repository. The data was analyzed using SPSS with the help of descriptive tools and inferential statistics was done using Pearson's product moment of correlation. Data was presented using tables, graphs and charts and the F-test was used to evaluate the significance of the obtained results (Gachora et al., 2017).

A study done in 2016 on the effect of liquidity management on financial performance of DT SACCOs in Kenya revealed that members contribution played a key part in generating needed cash for the loans issued by the SACCOs to their members. The demand for cash in terms of members' loan request was very high resulting in inadequate surplus cash for diversified investments. SACCOs need to devise an effective dividend payment policy as a high payout though lucrative in the short run may have far reaching consequences in the long run thereby negatively affecting performance. The researcher also found that there is a need to introduce cash management controls in the SACCOs and device proper credit management policies. The research employed both primary and secondary data; primary data was collected by use of self-administered questionnaires while secondary data was derived from the audited financial statements of the SACCOs from SASRA. The data was analyzed using descriptive statistics while the research hypothesis was tested by use of F-statistics and to determine the relationship between variables cross tabulation was conducted with the help of SPSS and correlation determined (Mugambi, 2016).

2.4.6 Investment Decisions and financial self-sufficiency.

Research conducted on the influence of investment decisions on the firm performance of SACCOs among 73 registered SACCOs in Baringo County yielded the following results, Real Estate Investment influenced 9.8% of financial performance, lending to members influenced 15.3%, FOSA activities influenced 16.6% while lending to the government explained 10.7%. The highest influence was explained by FOSA activities, followed by lending to members, then lending to the government and finally real estate. The study was guided by stakeholder theory, information theory and decision-making theory. The study was based on a descriptive survey design, stratified

sampling was used in selecting a sample size of 177 respondents and data was collected using questionnaires and analyzed using both descriptive and inferential statistics (Rotich et al., 2016).

A SACCO's board of directors have the ultimate responsibility to ensure due diligence is exercised in investing shareholders' funds prudently. Unfortunately, these entrusted BODs are notorious for investment decisions that have little or no value addition to the SACCO entities. Non profitable investments should be discouraged, despite the large sums of cash that SACCO entities commit to such investments the returns are not commensurate to the costs incurred resulting in very little or nil profits. Eventually, this reduces the capital base from which interest with regards to lending to members, FOSA activities or government can be earned (Mwangi, 2013).

A study conducted in 2019 on investment decisions and financial distress of SASRA regulated SACCOs in Kenya established that there is a mutual effect of investment decision and financial distress of SACCOs in Kenya. Descriptive research design was employed on sample size of 46 SACCOs based in Nairobi as a cluster sample out of 176 SACCOs registered by SASRA, purposive sampling was used to select the accountant, chief executive officer and internal auditor of each SACCO. Questionnaires were used to collect primary data which was analyzed by descriptive statistics, a regression model was used to establish the relationship between variables and provide description of the data. The study found a positive but statistically insignificant relationship between external borrowing and financial distress in DT SACCOs in Kenya. The study further recommended that the government through SASRA should establish mechanisms to find how investment decisions are made in SACCOs and board members should be held liable for decisions that lead to the detriment of SACCOs (Nguta, 2019).

2.5 Summary of Empirical Review & Research Gap

2.5.1 Summary

The analysis above gives an insight into previous research in the area of SACCO financial self-sufficiency in relation to the variables under study. Research findings on the effect of loan quality by employer institutions shows that it has a negative effect on performance, reviewed literature points out that a proper corporate governance framework is key in ensuring financial soundness of a SACCO. Reviewed literature points out that access to external finance is key in ensuring

SACCOs can absorb shocks, refinance loans and invest in other profitable areas this will ensure growth and financial self-sufficiency of the SACCO. In addition, reviewed literature on liquidity management showed that cash management practices had a significant influence on the profitability of DT-SACCOs. In regards to investment decisions, it was observed that SACCOs have a set of alternatives to invest in, the investment choice by a SACCO impacts its profitability and performance.

2.5.1 Research Gap

Following this summary, it is notable that a large part of the empirical research available has laid emphasis on the relationship between the variables and the profitability or financial performance of SACCOs. There is scarce evidence of the relationship between these variables and financial self-sufficiency. Financial self-sufficiency is a non-profit equivalent of self-sufficiency that helps predict the ability of an institution to operate as a going concern by effectively discharging their lending functions and other operating activities (Woller, 2010). It is imperative to note that the key role of SACCOs is to offer loans to its members, therefore the going concern principle is of utmost importance to a SACCO, without a proper framework for self-sufficiency there is a high likelihood of collapse; other than measuring profitability it is important to measure the ability of a SACCO to continue discharging functions to its members sustainably.

Most of the existing research as highlighted in the empirical review point towards the measurement of a SACCO's self-sufficiency by evaluating the factor determinants against profitability; however, new and other print media have cited the collapse of SACCOs that reported consistent profits in the previous year's only to end up in collapse (Galgallo, 2019). This questions the effectiveness of profitability as a measure of SACCO self-sufficiency thus creating a need for the measure of SACCO self-sufficiency using a different construct. Secondly, there seems to be inconclusivity with regard to the significance of some of the factor determinants with regard to profitability and self-sufficiency such as the opposing findings by Mwatu (2018) and Ondieki et al. (2017) on external finance. Lastly, the unilateral evaluation of the factor determinants fails to capture the importance of each variable with respect to self-sufficiency. These elements present a research gap for study – the study will therefore address the shortcomings of profitability as a measure of self-sufficiency, inconclusivity of findings and the unilateral evaluation by using a multifactor approach.

Table 2 2.5.1 Research Gap Matrix

Independent variable	**Dependent variable**	**Data analysis**	**Findings**
Corporate governance	Performance (Profitability)	Hypothesis testing, regression analysis	Significant positive relationship (Muriuki & Ragui, 2013)
Loan Quality	Self-sufficiency	Hypothesis testing, regression analysis	Not significant relationship positive relationship (Kigiri, 2007)
External finance	Performance (Profitability)	Hypothesis testing, regression analysis	Significant negative relationship (Ondieki et al., 2017)
Liquidity Management	Self-sufficiency	Hypothesis testing, regression analysis	Significant positive relationship (Githaka & Gachora, 2017)
Investment Choice	Performance (Profitability)	Hypothesis testing, regression analysis	Not significant negative relationship (Rotich et al., 2016)
External finance, Liquidity management	Self-sufficiency	Panel data regression model	External finance – Not significant negative, Liquidity management – not significant positive (Song'e, 2015)
Corporate governance, investment choice	Performance (Profitability)	Hypothesis testing	Not significant positive (Adelakun, 2015)
Research gap (Test all variables)	Use self-sufficiency (Self-sufficiency)	Panel data regression	Inconclusive findings (Add knowledge)

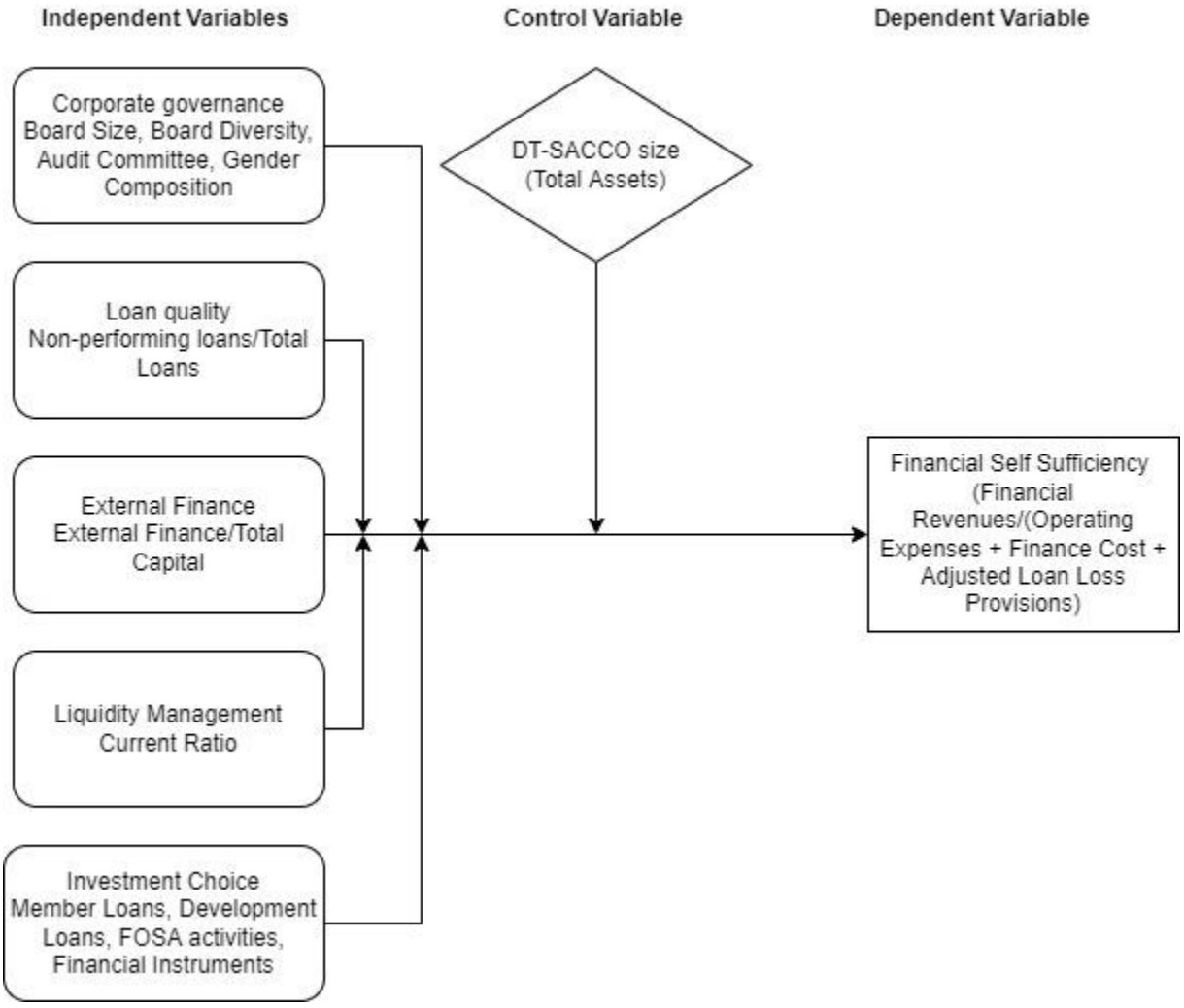
2.5.1.2 Discussion of the Research Gap Matrix

The research gap matrix above was prepared to highlight the key empirical studies that has been done on the various independent variables against the dependent variable. The table outlines that a majority of the research conducted had a singular focus evaluating each set of independent variables against the dependent variable, secondly, the table highlights that a majority of the studies focused on the analysis of the factor determinants (independent variables) against the profitability of SACCOs and a good number of the studies also used hypothesis testing to confirm the relationship between the variables. Lastly, there is evidence that the results presented by each research did not reveal similar results with regards to whether the factor determinants were significant in predicting the dependent variable. This study identifies a gap to the extent that it will evaluate the relationship between the variables using a multi-factor approach, the use of financial self-sufficiency as opposed to profitability, the use of panel data and lastly an attempt at justifying the significance of the relationship between the variables.

2.6 Conceptual Framework

Conceptual framework refers to a concise description of the different phenomenon under study, illustrated using a graphical or visual depiction of the major variables of study, in a statistical perspective, the conceptual framework describes the relationship between the main concepts of a study (Adom et al., 2018). This study seeks to investigate the relationship between determinants of financial self-sufficiency; non-remittance of contributions, corporate governance, external financing, liquidity and investment choice and their effect on the self-sufficiency of a SACCO.

Figure 1:2.6 Conceptual Framework



2.6.1 Independent Variables & Dependent Variable

The conceptual framework outlines the direct relationship between the independent variables and the dependent variable, equally outlining the mediating role of the control variable. In the different boxes there is a clear outline of the elements that were used in the measurement of the variables which is further defined under the table on operationalization of the variables in section 2.7.

2.6.2 Control variables

Control variables are used in research to ensure accurate measurement of the relationship between the independent and dependent variables, the control variables aid in eliminating or reducing the effect of extraneous variables. A failure to contain the extraneous variables will most likely lead to skewed results that may not accurately present the underlying relationship between dependent and independent variables (Atinc et al., 2012). In this research study the control variable selected is the SACCO size. This control variable was used to reduce the influence of the extraneous variables on the operational or financial self-sufficiency of SACCOs. The use of the control variable ensures that there is no bias toward larger DT-SACCOs in the findings of the study.

2.7 Operationalization of Variables

Operational definition of variables refers to a precise statement of how the conceptual variables in the study are measured (Gravetter & Forzano, 2009). This table provides an outline of the variables under secondary data analysis (panel data) and their methods of measurement.

Table 3 2.7 Operationalization of Variables

Variables	**Measurement of secondary data**	**Supporting literature**	**Supporting theories**
Loan Quality	Non-performing loans as a proportion of the total loans issued	(Nzoka, 2014) (Abdirahman, 2020)	Life cycle theory
Corporate Governance	Board size, Board independence, Board diversity, Gender representation, audit and risk	Wan Yusoff & Adamu Alhaji, (2012); Kimenju, (2016); Mwangangi & Olweny, (2016)	Agency theory

	management practices (index scoring scale) (Schnyder, 2012).		
External Finance	External debt as a proportion of SACCO capital	Bougheas et al., (2004); Onyango, (2016); Mwatu, (2018)	Life cycle theory-
Liquidity Management	Current ratio	Gatheru et al., (2020); Mwashi & Miroga, (2018); Gachora et al., (2017).	Profit incentive theory
Investment Choice	Proportion of funds invested in various types of loans and securities as a percentage of total assets (e.g., emergency loans, normal loans, development loans and other loan types, Treasury bills / bonds and others)	Zonienė & Valiulė, (2019); Rotich et al., (2016); Nguta, (2019), Manthi, (2017)	Profit incentive theory
Dependent variable (Financial self-sufficiency)	Financial Self Sufficiency = Financial Revenues /(Operational Expenses + Finance Cost + Loan Loss Provisions)	(Semaw Henock, 2019), (Yitayaw, 2021)	Profit Incentive Theory
Control variable; SACCO size	Natural Logarithm of the Value of Total Assets	(Kinyua, 2013)	Life cycle theory

2.7.1 Independent Variables

In this study, loan quality was measured as non-performing loans as a proportion of the total loans disbursed, this was voted as a proxy representing the failure by members to remit loan repayments as expected. The element of corporate governance was measured using an index scoring technique which focused on the elements of Board size, Board independence, Board diversity, Gender representation, audit and risk management practices. External finance was measured as the external finance used by the SACCOs as a proportion of the total capital employed. Liquidity management was measured using the SACCOs current ratios. Investment choice was measured as the total proportion of the SACCO funds invested in its main investment (loan issues to members) as a proportion of the total investment constituting all investment alternatives chosen by a DT-SACCO. Lastly, the control variable employed was the SACCO size which was a multiple of the total assets held by a DT-SACCO.

2.7.2 Dependent Variable

In measuring financial self-sufficiency, the researcher chose the model of financial self-sufficiency which is evaluated using the formula $Financial\ Self-Sufficiency = (Financial\ Revenues/(Operating\ Expenses + Finance\ Cost + Adjusted\ Loan\ Loss\ Provisions)$.

The measurement of DT-SACCO self-sufficiency using these multiples evaluated the ability of the DT-SACCO to continue operating as a going concern based on its ability to cover for its operating expenses, finance costs and cover for its non-performing loans into the foreseeable future. This model of measuring financial self-sufficiency of DT-SACCOs was similarly applied by Semaw Henock (2019) and Yitayaw (2021) in evaluating the financial self-sufficiency of SACCOs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents the methodology that the research adopted to achieve the intended objective. It begins with a description of the population, sample, data that was used and the procedure adopted. This chapter also goes on to describe the model and variables that were used to identify the factors influencing the financial self-sufficiency of SACCOs in Kenya.

3.2 Research Philosophy

The research philosophy outlines the guidelines that inform the research design, data collection as well as analysis. This research adopted a positivist research approach which posits that the relationship between variables or the behavior of a phenomenal can be described objectively through observation and the results of these experiments or empirical analysis being objective in nature can be verifiable by subsequent research (Park et al., 2019). A positive research philosophy may thus involve the use of secondary data in empirical research to evaluate the relationship between the variables under investigations. The role of the researcher in this case is limited to data collection, analysis and presentation in an objective way without interfering in the study (Ryan, 2018). This research embodied the aspects described herein by collecting secondary data conducting analysis and presenting the results as per the study. The conclusion of the findings from the study were presented using an inductive approach based on the results of the observation and analysis.

3.3 The Research Design

A research design acts as a road map for carrying out a research study, a good design enables the study to address the research problem in line with the study objectives (Kothari, 2004a). This research adopted a descriptive research design approach to investigate the relationship between the independent and dependent variables as similarly applied by (Semaw Henock, 2019). The study was aimed at investigating the effects of; Loan quality, corporate governance, external financing, liquidity and investment choices on the financial self-sufficiency of SACCOs. A descriptive

research design approach was deemed as the most appropriate for this study since the intention of this research was to describe the existing phenomenon as is and explain the existing relationship between the variables and financial self-sufficiency (Gravetter & Forzano, 2009). The study thus collected secondary data which was then used to explain the relationship between financial self-sufficiency and the factor determinants. The research design approach will incorporate secondary data collected from the audited annual reports of the SACCOs under investigation; the data collected will then be analyzed using panel data analysis techniques in a bid to explain the underlying characteristics and relationship of the phenomenon.

3.4 Population

Population in research refers to a collection of subjects with similar characteristics that form the basis of a study; the proper definition of a population is essential in defining the objects of research (Kothari, 2004a). that the According to (SASRA, 2019b) the total number of registered and actively operating deposit SACCOs as at the end of 2019 were 163; the study used the total number of active deposit-taking SACCOs as the population for research. The choice of licensed deposit taking SACCOs was based on the assertion that they are the ones that operate within the set regulations of SASRA and submit their financial statements annually. The decision to consider all the deposit taking SACCOs was to ensure that the study captures the prevailing characteristics of the industry and ensure that the results reflect the underlying situation in the industry. The decision bears similarity with studies conducted by Kiai et al. (2020) and Gatheru et al. (2020), where the former considered all the Deposit Taking SACCOs in Kenya whereas the latter considered all the SACCOs operating in Nairobi County.

3.5 Sampling Frame

This consists of all the subjects under study from which a sample is derived. In this study, the sampling frame is the list of all the 163 licensed deposit-taking SACCOs listed under the SASRA report as at December 2019. The sampling frame for the study was included in appendix III in the study.

3.6 Sampling

A sample is a subset that is representative of the population under study. When the population is relatively large or resources in terms of time and cost are inadequate, then sampling should be carried out (Kothari, 2004b). In this research, the population consisted of 163 subjects, adequate annual reports for all the 163 subjects in the population was not available, additionally it would be entirely cumbersome and gruesome to collect all the data for the subjects, in certain cases the data was missing. In light of this, and given the desire to ensure an accurate data analysis, a sampling approach was decided upon. The Cochran sampling technique was viewed as an adequate approach to determining the optimal sample size that would be representative of the other Deposit-Taking SACCOs. In this study, the following formula was used to calculate a representative sample proportion of the population the formula was developed by (Cochran, 1977).

When the population is infinite: Assuming maximum variability which is equal to 50% (p=0.5), a confidence level of 95 % with + 14% precision, the computation for the required sample was as follows:

$$n = \frac{z^2 pq}{e^2}$$

Where n is the sample size, z is the selected critical value of the desired confidence level, p is the estimated proportion of an attribute present in the population q = 1 – p and e are the level of precision.

p = 0.65 and hence q = 1-0.65 = 0.35 e = 0.5 z = 1.96

$$n = \frac{(1.96)^2(0.5)(0.5)}{(0.14)^2} = 49$$

An adjustment for a finite population (N): (where N = 167 SACCOs)

$$n = n/(1 + \frac{n-1}{N})$$

$$n = 49/(1 + \frac{49-1}{163}) = 37$$

Given the computation of the sample size the study used 37 SACCOs. Stratified sampling was used to identify the composition of the sample. The strata were based on the geographical locations

of the SACCOs and the size of the SACCO in terms of the number of members and assets base. This sample size was considered to be representative of the target population since it satisfied the requirements of representativeness, reliability and efficiency considering other factors like size of population, nature of units and the time available for the completion of the study(Kothari, 2004b).

3.7 Data Collection Methods

The data type that was collected and utilized for this study consisted of secondary data. The choice of secondary data only for the study was to ensure an objective and a non-biased evaluation of the phenomenon Bloomfield & Fisher (2019), as well as enabling a basis of comparison based on the uniformity of the determinants of financial self-sufficiency under investigation. Secondary data was obtained from the financial statements of the selected deposit taking SACCOs that submit their audited financial statements to SASRA, this financial information was obtained from the SASRA portal, respective DT-SACCO websites and other secondary sources. The sample suggested 37 deposit-taking SACCOs for the purpose of this study, this study gave preference to deposit taking SACCOs that had the quality and extent of data required; based on the consistency of reporting that enable a 5-year period of study.

The chosen period of research -5 years- was aimed at ensuring a deep breadth of longitudinal study and to avoid any business cycles that may interfere with the study; most of such cycles last 2-3 years; on the other hand, in a regression analysis a longer period of study enables the researcher to develop more reliable findings that capture a larger data set (Ployhart & Vandenberg, 2010). The trends and changes in certain variables are usually slow and may take time to realize changes, the 5-year period takes charge of such (Han, 2018). Studies conducted on the self-sufficiency of SACCOs as conducted by Waweru (2018) and Prakash (2016), employed the 5 years period in analyzing self-sufficiency.

3.8 Data validity and reliability

Research quality and the potential of generalization of the results to other members of a population is dependent on the validity and reliability of the data elements collected. In research validity refers to the extent of accurate measurement of the independent variables in a quantitative study whereas reliability refers to the extent of consistency exhibited by data elements if the same research is

conducted on different occasions (Heale & Twycross, 2015). Despite previous researchers highlighting the lack of importance of validity and reliability in qualitative research, in the case of secondary there is need for trustworthiness of the data hence the need for audited reports in the analysis of firm financials used for quantitative research purposes; a research developed by Guba (1981), points that the key aspects that inform the trustworthiness of data collected are; credibility, dependability, transferability and transferability. Verification is viewed as a critical element in ensuring reliability and validity; verification in this case involves checking the data collected confirming the components and being certain about their method of measurement and accuracy.

For the purpose of this study, in ensuring validity and reliability; for the case of quantitative data, the study used only audited financial reports in order to ensure accuracy and verifiability of the data elements used. On the other hand, in determining the validity and reliability of research; a study should adhere to the aspects of; methodological coherence, sampling appropriateness, concurrent collection and analysis of data and theoretical development (Morse et al., 2002). The study ensured adherence by ensuring that the data collection and analysis techniques used, the sampling technique used ensured that the sample was representative of the entire population, the data analysis techniques used was also alighted to the type and extent of data collected (panel data) to ensure reliability and validity, the analysis of data was conducted with existing theory to assess the confirmation or departure from the existing theoretical concepts.

3.9 Data Analysis techniques

Data analysis is the application of logic to understand the data that has been collected with the purpose of determining consistent or inconsistent patterns and summarizing the details revealed in the study (Zikmund et al., 2009). The dataset for this research study involved the pooling of observations on a cross section of units over several time periods; this enabled the observation of the behavior of entities across time. (Kinde, 2012).

3.9.1 Econometric Analysis

This study decided on a panel data analysis framework over a time series analysis due to the nature of data under investigation and the effectiveness presented by a panel data analysis. Panel data controls individual heterogeneity, gives more informative data, more variability, less collinearity

among the variables, more degrees of freedom and more efficiency (Cheng, 2003). Additionally, Panel data are better able to identify and measure effects that are simply not detectable in pure cross-section or pure time series data (Badi, 2005).

3.9.2 Panel Regression Analysis and Robustness test

A linear panel regression model was used with financial self-sufficiency as the dependent variable and the determinants of financial self-sufficiency as the independent variables. The resulting operational model for estimating the association between the dependent and independent variables that was used in the study is as shown below: This model was derived from the review of past studies on factors affecting the financial self-sufficiency of SACCOs. FSS is financial self-sufficiency which measures the ability of the institution to generate enough financial revenue to cover its costs in the foreseeable future.

The full pooled OLS model adjusted for control variables under the main model for secondary data analysis was as follows;

Equation 1

$$\boldsymbol{FSS_{it} = \beta_o + \beta_1 CG_{it} + \beta_2 LQ_{it} + \beta_3 EF_{it} + \beta_4 LM_{it} + \beta_5 IC_{it} + \beta_6 \Sigma Controls_{it} + \varepsilon_{it}}$$

Where;

$\boldsymbol{FSS_{it}}$ = Financial self-sufficiency for SACCO i at time t

$\boldsymbol{CG_{it}}$ – Corporate governance for SACCO i at time t

$\boldsymbol{LQ_{it}}$ – Loan quality for SACCO i at time t

$\boldsymbol{EF_{it}}$ – External finance for SACCO i at time t

$\boldsymbol{LM_{it}}$ – Liquidity management for SACCO i at time t

$\boldsymbol{IC_{it}}$ – Investment Choice for SACCO i at time t

$\boldsymbol{\Sigma Controls_{it}}$ – The summation of the chosen control variable (SACCO size) for SACCO i at time t

$\boldsymbol{\varepsilon_{it}}$ – Error term for SACCO i at time t

i – SACCO

t – time

3.10 Ethical Considerations

According to Abbas et al. (2012), ethical considerations are considered to be imperative in research; first, research requires a high level of coordination and cooperation between the respondents of the study (individuals and institutions) and the researcher, adherence to ethical standards in research promotes trust, mutual respect, accountability and fairness. Secondly, ethical considerations promote the intricate objectives of research such as truth, sincerity, knowledge and reduction of errors. Thirdly, ethical considerations ensure that researchers can be held accountable and responsible to the public and lastly the ethical considerations build societal trust, confidence and support for sustainable research activities. In regards to this study, the ethical considerations were adhered strictly ensuring objectivity and embodying other aspects as outlined under the ethical research guidelines issued by the Research code of ethics in Strathmore Business School.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter conducts an analysis of the data collected during research and presents the results of the data analysis in accordance with the research objectives. This chapter has the following key sections; the research sample, diagnostic tests conducted, descriptive statistics, covariance analysis, correlation analysis, normality tests, regression analysis, and the results of the analysis are presented in tables and graphs for ease of understanding and interpretation. The last section of the study conducts a comparative analysis between the findings obtained from secondary data analysis vis a vis the primary data analysis.

4.2 Study Sample

The study considered a total of 37 deposit takings SACCOS in the final sample. As indicated in table 4.1.1 below, 21 of the 37 deposit SACCOs selected have their headquarters in Nairobi which represents 62% of the sample and indication that based on the randomized criteria of selection a majority of the DT SACCOs are headquartered in Nairobi. The rest of the DT SACCOs that form the sample are distributed as follows; Mombasa – 2, with the following towns having one SACCO each: Nyeri, Nakuru, Marala, Mbita, Kerugoya, Uplands, Magadi, Khayega, Kikuyu, Chuka, Kericho and Githunguri. The keen observation from the population of study is that Central Kenya follows Nairobi in terms of the concentration of DT SACCOs whereas the Western region has the smallest number of DT SACCOs.

4.3 Research Model

Based on the methodology of the research, equation 1, highlighted below outlines the expression of the independent variables and the dependent variable. In modelling the relationship between the variables, the researcher conducted evaluations using normal linear regression (OLS), Random effects model and the Fixed Effects Model. Lastly, the Random Effects Model was found to be appropriate in predicting the relationship between the variables. The analysis is as indicated below:

Equation 1

$$FSS_{it} = \beta_o + \beta_1 CG_i + \beta_2 LQ_{it} + \beta_3 EF_{it} + \beta_4 LM_{it} + \beta_5 IC_{it} + \beta_6 \Sigma Controls_{it} + \varepsilon_{it}$$

4.4 Descriptive Statistics

In evaluating the relationship between the factor determinants of financial self-sufficiency (corporative governance, loan quality, external finance, liquidity management, investment choices, and control variable – SACCO size) and the dependent variable -financial self-sufficiency-, the researcher collected data over the five-year period 2014-2018 which consisted of 37 SACCOs. The number of observations for the data collected over the period was 185.

The descriptive statistics of the data for the various variables used in the analysis are as shown below:

Table 4 4.4.1 Descriptive Statistics

	FSS	CG	LQ	EF	LM	IC	CV
Mean	0.9421	12.2649	0.0803	0.0755	1.9621	1.0967	21.6893
Median	0.9493	12.0000	0.0467	0.0505	0.3431	0.6835	21.4470
Maximum	3.4902	20.0000	0.4874	0.9169	158.5413	46.7208	24.5600
Minimum	0.2154	7.0000	0.0000	0.0020	0.0029	0.0272	17.2141
Std. Dev.	0.3859	2.7643	0.0946	0.0924	12.1407	3.5966	1.2807
Skewness	1.9491	0.5284	1.9227	5.4275	11.9160	11.5252	-0.0236
Kurtosis	13.3744	2.9692	6.9070	43.3707	151.9160	143.1218	3.3591
Jarque-Bera	946.77	8.62	231.65	13471.25	175318.00	155441.90	1.01
Probability	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000	0.6031
Sum	174.28	2269.00	14.86	13.97	362.99	202.89	4012.52
Sum Sq. Dev.	27.40	1406.02	1.65	1.57	27121.12	2380.19	301.78
Observations	185	185	185	185	185	185	185

4.4.1 Dependent Variable

The financial self-sufficiency ratio in this study was expressed as the adjusted financial revenues against the operational expenses, non-performing loan provisions and the cost of capital. A financial self-sufficiency ratio of 1.0 and above signifies financial self-sufficiency whereas a value below this signifies a lack of self-sufficiency (Semaw Henock, 2019). The mean value of FSS as indicated in the descriptive analysis table above indicates that a majority of the DT-SACCOs in Kenya are not financial-self-sufficient. However, the high standard deviation of 0.3859 indicates

that there is a sizeable proportion of companies that are indeed financially self-sufficient whereas the low minimum of 0.2154 points to the existence of DT-SACCOs that have poor financial self-sufficiency.

4.4.2 Independent Variables

The corporative governance was measured using a scoring technique by Tipuri (2014), with a total score index of 20, the mean score as indicated in the descriptive analysis table is 12.2649, this gives the indication that a majority of the DT-SACCOs had a good corporative governance framework, the standard deviation of 2.7643 points to a small difference in their corporative governance practices. The loan quality (asset quality) ratio was measured as the non-performing loans as a proportion of total loans Ugoani (2016), the mean loan quality ratio was 8.03%, with an ideal loan quality ratio of below 6% a majority of the DT-SACCOs failed to meet this threshold. External finance was measured as the proportion of external funding against the total assets of the DT-SACCOs Ondieki et al. (2017), the mean value for the proportion of external finance was 7.55%, indicating that the DT-SACCOs used only a small proportion of external funding to finance the company's total assets. Liquidity management was measured as the current assets as a proportion of current liabilities (current ratio) Mwangi et al. (2018), the current ratio was 1.9621 suggesting good liquidity management practices.

The investment choice was measured as the proportion of the DT-SACCOs funds that were invested outside their core functions, the mean value of 1.0967 indicates that most DT-SACCOs invested in non-core activities. Lastly, the control variable (SACCO size) was measured using the natural log of the DT-SACCOs total assets.

4.5 Diagnostic Tests

4.5.1 Test of Normality

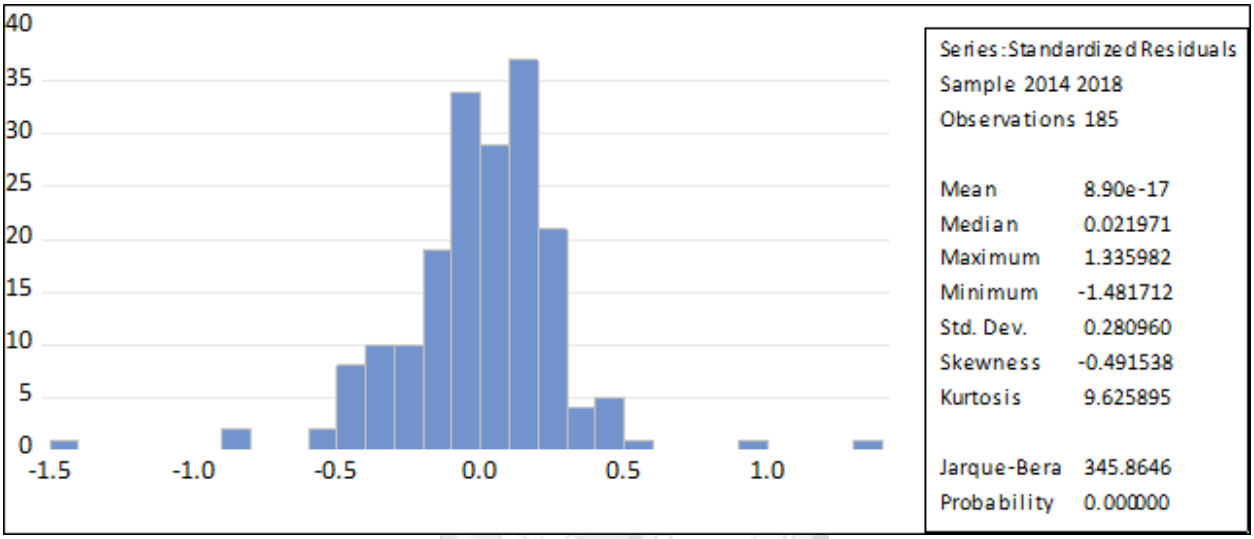
The test of normality evaluates whether the data set exhibits a normal distribution, to test normality, the researcher employed the hypotheses below if the p-value is greater than 0.05 we fail to reject the null hypothesis and conclude that the data is normally distributed, otherwise we accept the alternate hypothesis (H1: data is not normally distributed).

Ho: The data is normally distributed

H1: The data is not normally distributed

Decision rule: If the p-value is lower than 0.05 we reject the null hypothesis

Figure 2 4.5.1 Graphical Illustration: Normality Test



Based on the results of the residual diagnostics – normality test, there is evidence that the Jarque-Bera is 345.8646 indicating that it is higher than 5.99 suggesting non-normality, this is supported by the p-value which is lower than 0.05, suggesting that we reject the null hypothesis (Ho: The data is normally distributed) and accept the alternate hypothesis (H1: The data is not normally distributed). In this case, the researcher corrected non-normality by adjusting the data for the dependent and independent variables using natural logs on e-views to convert the data into normal distributions.

4.5.2 Unit Root Test

A unit root test for the panel data was conducted to test for the stationary of the data, there is a need to ensure data stationarity for the OLS model to produce unbiased findings. The hypothesis test and the decision rule are as shown below:

Ho: Data has a unit root problem (data is not stationary)

H1: Data has no unit root problem (data is stationary)

Decision rule: Reject the null hypothesis (Ho) if the p-value is lower than 0.05

Table 5 4.5.2 Unit Root Test (ADF)

Null Hypothesis: Unit root (individual unit root process)		
Series: FINANCIAL_SELF_SUFFICIENCY		
Date: 08/28/22 Time: 15:09		
Sample: 2014 2018		
Exogenous variables: Individual effects		
Automatic selection of maximum lags		
Automatic lag length selection based on SIC: 0		
Total (balanced) observations: 148		
Cross-sections included: 37		
Method	Statistic	Prob.**
ADF - Fisher Chi-square	155.2220	0.0000
ADF - Choi Z-stat	-3.5000	0.0002

The results of the unit root test herein indicate that the ADF-Fisher Chi-Square p-value is lower than 0.05, suggesting that we reject the null hypothesis (*Data has a unit root problem (data is not stationary)*) and accept the alternate hypothesis *H1: Data has no unit root problem (data is stationary).* Since the Unit Root Test, indicates that the data is stationary, thus will produce unbiased findings.

4.5.3 Heteroskedasticity Test

The Heteroskedasticity Test: Breusch-Pagan-Godfrey Test was used by the researcher to test for Heteroskedasticity, the results of the analysis are as shown below.

Ho: Data lacks heteroskedasticity

H1: Data has heteroskedasticity

Decision rule: Reject the null hypothesis (Ho) if the p-value is lower than 0.05

Table 6 4.5.3 Heteroskedasticity Test

Panel Period Heteroskedasticity LR Test			
Equation: UNTITLED			
Specification: FINANCIAL_SELF_SUFFICIENCY C CORPORATIVE_GOVE			
RNANCE LOAN_QUALITY EXTERNAL_FINANCE LIQUIDITY_MANAG			
EMENT INVESTMENT_CHOICE CONTROL_VARIABLE			
Null hypothesis: Residuals are homoskedastic			
	Value	df	Probability
Likelihood ratio	18.49627	37	0.9952
LR test summary:			

Based on the results herein, the Heteroskedasticity test reveals an F-statistic is 18.4963 with a P-value of 0.9952 which is higher than the significance level of 0.05 suggesting that we fail to reject the null hypothesis (Ho: data lacks heteroscedasticity problem), leading to the conclusion that there is there is no Heteroskedasticity in the data set.

4.5.4 Multicollinearity Test

The multicollinearity test was conducted using the correlation matrix as shown below, extreme correlations between the variables exceeding 0.55 indicate multicollinearity (Jauhari et al., 2019). However, the correlation matrix, in this case, indicates no variables have a correlation exceeding 0.55, thus, the conclusion is that the panel data has no multicollinearity.

Table 7 4.5.4 Correlation Matrix

	FSS	CG	LQ	EF	LM	IC	CV
FINANCIAL_SELF_SUFFICIENCY	1.000000						
COOPERATIVE_GOVERNANCE	0.142998	1.000000					
LOAN_QUALITY	-0.624991	-0.075503	1.000000				
EXTERNAL_FINANCE	0.073884	0.006272	0.021526	1.000000			
LIQUIDITY_MANAGEMENT	0.103983	-0.065705	0.018294	0.014013	1.000000		
INVESTMENT_CHOICE	-0.375600	-0.105988	0.019697	0.069053	-0.233403	1.000000	
CONTROL_VARIABLE	0.279955	0.067674	-0.221925	-0.049850	0.097265	-0.383259	1.000000

4.6 Choice of Preferred Model

4.6.1 Correlated Random Effects - Hausman Test

In determining the appropriate model for estimating the relationship between the variables under investigation, the researcher employed the correlated Random Effects Hausman Test to determine whether the random effects influence the model results. To this effect, the researcher tested the following hypothesis alongside the decision rule shown in table 4.4.1.1 below:

Ho: The random effects model is preferred

H1: The fixed effects model is preferred

Decision rule: Reject the null hypothesis if p-value is < 0.05

Table 8 4.6.1 Hausman Test

Correlated Random Effects - Hausman Test				
Equation: Untitled				
Test cross-section random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random		3.465851	6	0.7485
Cross-section random effects test comparisons:				

Based on the results of the Hausman test presented above, there is an indication that the p-value is 0.7485 which is higher than 0.05, thus, according to the decision rule, we will fail to reject the null hypothesis (*Ho: The random effects model is preferred*). This means that the random effects model is appropriate for predicting the influence of the factor determinants on financial self-sufficiency (Sheytanova, 2004).

4.7 Random Effects Model

The results of the test conducted above, the Hausman test, suggest that the best fit model to predict the relationship between factor determinants and the financial self-sufficiency of DT SACCOs in Kenya is the random effects model. Table 4.7.1.1 shown below outlines the relationship between the dependent variable and the independent variable showing the coefficients of the variables in the model on the influence of factor determinants on the financial self-sufficiency of DT SACCOs in Kenya. The random effects tables shown below equally outline other measures of the model such as R-squared and the Durbin Watson.

The R-squared explains the proportion of variances in the model that is explained by the independent variables Bartels (2015), the r-squared for this model is 0.4782 indicating that the model explains 47.82% of the variations in the financial self-sufficiency of DT SACCOs. The Durbin Watson value measures the existence of autocorrelation in a data set King & David (1995), in this case, the Durbin Watson value is 1.6925 and falls in the range of 1.5-2.5 thus suggesting there is no serial autocorrelation. The p-value of 0.0000 which is below the significance level of 0.05 indicates that the model is significant in explaining the relationship between the independent and dependent variables outlined herein.

Table 9 4.7.1 Random Effects Model of Impact of Factor Determinants on Financial Self-sufficiency of DT SACCOs in Kenya

Dependent Variable: FINANCIAL_SELF_SUFFICIENCY				
Method: Panel EGLS (Cross-section random effects)				
Date: 08/28/22 Time: 12:18				
Sample: 2014 2018				
Periods included: 5				
Cross-sections included: 37				
Total panel (balanced) observations: 185				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.9491	1.5729	-0.6034	0.5470
COPORATIVE_GOVERNANCE	0.1093	0.1071	1.0205	0.3089
LOAN_QUALITY	-0.1644	0.0156	-10.5572	0.0000
EXTERNAL_FINANCE	0.0687	0.0271	2.5394	0.0120
LIQUIDITY_MANAGEMENT	0.0044	0.0144	0.3026	0.7625
INVESTMENT_CHOICE	-0.2627	0.0476	-5.5148	0.0000
CONTROL_VARIABLE	0.0371	0.5096	0.0728	0.9421
	Effects Specification			
			S.D.	Rho
Cross-section random			0.129197	0.1981
Idiosyncratic random			0.259918	0.8019
	Weighted Statistics			
Root MSE	0.2531	R-squared		0.4782
Mean dependent var	-0.0933	Adjusted R-squared		0.4607
S.D. dependent var	0.3514	S.E. of regression		0.2581
Sum squared resid	11.8541	F-statistic		27.1923
Durbin-Watson stat	1.6925	Prob(F-statistic)		0.0000

4.8 Results Analysis and Interpretation

The random effects model above provides the regression analysis of the relationship between the factor determinants (corporative governance, loan quality, external finance, liquidity management, investments choice and the control variable) and the dependent variable financial self-sufficiency as generated by E-views. For corporative governance, the results indicate a co-efficient of 0.1093 and a p-value of 0.3089, the p-value was greater than 0.05, suggesting that there is a positive statistically insignificant relationship between corporative governance and financial self-sufficiency. The results presented herein are partly similar with the findings by Odek & Anyira (2017), which found a positive but significant relationship between corporative governance.

For loan quality, the results indicate a co-efficient of -0.1644 and a p-value of 0.0000, the p-value was less than 0.05, suggesting a negative statistically significant relationship between loan quality and financial self-sufficiency. This means that DT-SACCOs with high levels of non-performing loans as a proportion of total loans are less financially self-insufficient (financially unsustainable). This results are similar to the findings by Kabiru (2002) Kalani (2004) and Kanyiri, (2005) who established an inverse relationship between non-performing loans (loan quality) and financial performance of commercial banks in Kenya.

For external finance, the results indicate a co-efficient of 0.0687 and a p-value of 0.0120, the p-value was less than 0.05, suggesting a positive statistically significant relationship between external finance and financial self-sufficiency. This means that DT-SACCOs which include external funding as part of the total capital are more financially self-sufficient since they have a larger pool of capital for member loans and alternative investments. The results herein are similar with findings presented by Njagi et al. (2017) who found a positive and significant relationship between debt capital and financial performance of DT SACCOs in Kenya. The findings however contrasts findings by Mwatu (2018) which found a negative relationship between increased debt and profitability in DT SACCOs in Kenya.

For liquidity management, the results indicate a co-efficient of 0.0044 and a p-value of 0.7625, the p-value was greater than 0.05, suggesting a positive and insignificant relationship between liquidity management and financial self-sufficiency. The results presented herein are partially similar to those presented by Mwashi & Miroga (2018) and Gachora et al. (2017) which investigated the relationship between liquidity and profitability establishing a positive, but significant relationship.

For investment choice, the results indicate a co-efficient of -0.2627 and a p-value of 0.0000, the p-value was lower than 0.05, suggesting a negative and statistically significant relationship between investment choice and financial self-sufficiency. This means that DT-SACCOs that invested a substantial proportion of their assets into investment alternatives other than member loans were less financially self-insufficient (financially unsustainable). The results presented herein are in disagreement with results presented by Nguta (2019) who found a positive but statistically insignificant relationship between external borrowing and financial distress in DT SACCOs in Kenya.

For the control variable as measured by firm size, the results indicate a co-efficient of 0.0371 and a p-value of 0.9421, suggesting a positive statistically insignificant relationship between DT-SACCO size and financial self-sufficiency. This means that large DT-SACCOs as measured by the asset size are likely to be financially self-sufficient.

4.8.1 Connection between results and theory

The life cycle theory postulates that as firms are started grow and mature, they tend to have refined practices in terms of managing the affairs of the organization which in turn lead to financial stability. According to Marc de Soussa & Brad (2005) the growth of firms leads to management best practice, access to funding and growth in the entity size, based on the results of this study there is evidence that supports this theory to the extent that there is a positive but insignificant influence of corporate governance on financial self-sufficiency, there is a positive statistically significant influence of external finance on financial self-sufficiency and the positive statistically insignificant effect of firm size on DT SACCO self-sufficiency. This study therefore affirms the theory highlighting that more established firms which are at a higher level in the lifecycle due to their better corporate governance practices, access to external finance and higher asset values have a higher likelihood of being financially self-sufficient in comparison to those in the start-up or growth phase.

Contrary to the expectations of the researcher while formulating this study, which pointed towards the singularity of the lifecycle theory in explaining how the evolution of DT-SACCOs contributes to financial self-sufficiency, there are traces of the agency theory in financial self-sufficiency of DT-SACCOs. It is notable from the results presented herein, that the factors found to be statistically significant in explaining DT-SACCOs' financial self-sufficiency were loan quality, external finance and investment choice. The decisions regarding the use of external finance, loan policies and investment choices are mostly made by SACCO managers, therefore there is the need for managers to make these decisions with the SACCO members best interests at heart. In conclusion, this study features a multi-theoretical approach to explaining the relationship between factor determinants and financial self-sufficiency.

The sentiments in this study regarding the application of the agency theory in explaining management decision with regard to external finance and investment choices are similarly held by

a study by Kumburu et al. (2012) which highlighted that management decisions largely impact SACCO self-sufficiency to the extent of their involvement in decisions on use of external finance and implementations of policies outlined in the corporate governance framework. These findings back the general concept in finance on capital structure decisions which posits that the usage of external debt by financial institutions provide an alternative source of funding, relaxes liquidity constraints and enables the managers to make better returns. The findings similarly agree with the common principle that increases in non-performing loans negatively impacts the financial self-sufficiency of a financial institution.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This section of the study outlines the conclusion of the study based on the results of the analysis as presented in Chapter Four, Recommendations to industry players, practical implications of the study, areas of further research and an outline of the limitations encountered during the study.

5.2 Conclusion

This study was focused on evaluating the determinants of financial self-sufficiency and reviewed existing empirical studies on the different factors that impact the financial self-sufficiency of DT-SACCOs; the main factors that were found to have an impact on the financial self-sufficiency of DT-SACCOs were found to be corporative governance, loan quality, external finance, liquidity management and investments choice. This study sought to determine the relationship between each of the determining factors mentioned and their contribution to the financial self-sufficiency of the DT-SACCOs. The study equally sought to determine whether the results presented herein will be similar to previous studies or bear contrast with previous studies thus contributing to the existing empirical literature on the determining factors of DT-SACCOs financial self-sufficiency.

To realize this objective; the study constructed a linear model with financial self-sufficiency as the dependent variable and the determining factors - corporative governance, loan quality, external finance, liquidity management and investments choice - as the independent variables, additionally, control variable was introduced in the study to cover for other DT-SACCO specific factors that may influence the model. The study used a positivist research philosophy approach, incorporating the secondary data and limiting the researcher's role to the collection of data, analysis and presentation without interfering in the description of the existing phenomenal. The secondary data used in the study was collected from the websites of the different DT-SACCOs investigated as well as the SASRA portal. In regards to the analysis of data; the secondary data were analyzed using a panel data regression approach.

The results of the analysis herein revealed that corporate governance had a positive statistically insignificant influence on the financial self-sufficiency of DT SACCOs, external finance had a positive statistically significant influence on the financial self-sufficiency of DT SACCOs, liquidity management had a positive statistically insignificant influence on the financial self-sufficiency of DT SACCOs and the SACCO size equally had a positive statistically insignificant influence on the financial self-sufficiency of DT SACCOs. On the other hand, loan quality and investment choice had a negative statistically significant effect on financial self-sufficiency of DT SACCOs. In the order of strength determined from the respective coefficients and significance, external finance had the strongest positive influence followed by corporate governance, DT-SACCO size and lastly liquidity management. In regard to the negative influence on financial self-sufficiency, investment choice had the highest negative influence followed by loan quality.

5.3 Recommendations

5.3.1Key Recommendations

Based on the results of the study the key recommendations are made with regard to the factor determinants that had a significant influence on financial self-sufficiency namely: external finance, loan quality and investment choice. The decisions regarding these elements are normally at the discretion of the DT-SACCO managers and internal stakeholders, thus these recommendations are most applicable to these managers and the internal stakeholders. In regard to external finance; there is a need for DT-SACCO managers to seek external funding at low a cost of capital to improve the DT-SACCO's ability to offer more services to its members, an increased pool of funds increases the asset base of the SACCO. These funding sources may include bank borrowing, donor funds as well as bonds; they will serve to increase the available cash pool and will have the effect of increasing the available financing for DT-SACCO member loans as well as availing funds for operations and other available investment options which in the end, have a positive effect on financial self-sufficiency.

In regard to loan quality; there is a need for SACCO managers to ensure robust loan policies as well as proper debt collection strategies thus reducing their outstanding non-performing loans since high levels of non-performing loans has a net negative effect on financial self-sufficiency. DT-SACCOs can improve their credit policies by using improved integrated technology tools that

allow them to track loanees, capturing information such as average monthly income, average monthly spending, disposable income, incorporating their credit report and being able to make intelligent decisions on the member's willingness and ability to repay loans thus avoiding the aspects of morally hazardous behavior among clients as well as an adverse selection; these implementations will help reduce instances of non-performing loans. Additionally, DT-SACCOs should constantly look for ways of striking mutual agreements with their loanees which may involve loan restructuring to avoid ballooning their NPLs.

Lastly, in regard to investment choice there is a need for DT-SACCO managers to focus a large portion of assets on the DT-SACCO's core activities rather than diversifying to other risky investment alternatives which exposes the SACCO to financial instability. There is a need for DT-SACCOs to ensure that they have a larger portion of their assets in the investments that yield the highest returns but pose low risk to safeguard member deposits; the investment choices in this category may mainly involve (members loans, financial instruments, and development loans).

5.3.2 Other Recommendations

Moreover, for the factors that had a statistically insignificant effect on financial self-sufficiency some insights can still be drawn. There was the evidence of a positive relationship between the factor determinants: corporative governance, liquidity management and the control variable with financial self-sufficiency. There is a need for the internal stakeholder as well as members to reinforce and implement robust corporate governance frameworks that span board diversity, board expertise, board independence, internal audit, external audit, risk management, credit policies and authorizations among others to ensure effective and efficient management practices, these aspects will work together towards realizing that the DT-SACCO is financially self-sufficient. As for liquidity management practices managers should ensure that they continue to maintain adequate liquidity within the DT-SACCO.

Lastly, in regard to SACCO size, DT SACCOs should strive to increase their asset base by constantly recruiting new members, appealing to members to increase share purchases and continuous deposits thus increasing their asset base which positively influences financial self-sufficiency.

5.4 Practical Implications

The DT SACCOs regulating body – SASRA – should ensure there is increased scrutiny on the aspects that negatively impact financial self-sufficiency. In this case, the regulating body and policymakers should institute thresholds on the minimum proportion of member deposits that have to be employed toward member loans or thresholds on other investment choices to guard member deposits against DT-SACCO financial distress that may lead to collapse. The regulating body should also set guidelines on liquidity based on sector best practices and lastly there is a need to guidelines on non-performing loans and constant audits to ensure compliance with credit policy guidelines thus cutting on NPLs and improving loan quality. For adequate regulation, SASRA has to constantly review the external audit reports for the different DT-SACCOs and put the management of the respective DT-SACCOs to task whenever these self-sufficiency issues are raised in audit reports.

In the case of members, based on the results of the study; members looking to join DT-SACCOs and are concerned about evaluating the financial self-sufficiency of these DT-SACCOs should be on the outlook for use of external finance, robust corporate governance practices and watch out for liquidity management practices, choice of investments and the non-performing loan figures; these aspects will be invaluable in helping them choose financially self-sufficient DT-SACCOs. Most importantly members looking for SACCOs to join should keen on evaluating the use of external finance, loan quality and investment choices of the DT-SACCOs. A consideration of DT SACCOs with a large asset base is also advisable pointing to preference for large established SACCOs.

5.5 Limitations of the Study

The limitations of the study highlight areas of experiences during research that may impact negatively the ability of the researcher to draw relevant conclusions (Akanle et al., 2020). This study involved a panel data regression model which initially recommended a study over a 10 years period; however, this scope of research was not covered due to lack of complete annual reports over the 10 years period, thus, the study resolved to a five-year period that presented completeness in data.

5.6 Further Research

The results herein point that corporate governance and liquidity management are not significant predictors of financial self-sufficiency of DT-SACCOs, these results contrast studies by Mwangangi & Olweny (2016) and Gachora et al. (2017) which established a positive significant relationship between these elements and financial stability. This raises questions on whether these elements are significant in predicting the self-sufficiency of DT-SACCOs. This prompts further research with a longer time frame or primary data backing to validate the results herein. Additionally, the insignificance of the DT-SACCO size in predicting the financial self-sufficiency of DT-SACCOs also partly contradicts the validity of the lifecycle theory as an explainer of the relevance of maturity and evolution to financial self-sufficiency. These areas of inconclusivity for the basis for further research. Using a multifactor approach to this analysis will be imperative in achieving consensus on the study results.

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Appendices

APPENDIX I: List of Licensed Deposit-taking SACCOs

THE SACCO SOCIETIES REGULATORY AUTHORITY
THE SACCO SOCIETIES ACT
(No. 14 of 2008)

LIST OF SACCO SOCIETIES LICENSED TO UNDERTAKE DEPOSIT-TAKING SACCO BUSINESS IN KENYA

PURSUANT to section 28 to the Sacco Societies Act (Act) as read with regulation 8 of the Sacco Societies (Deposit –Taking Sacco Business) Regulations, 2010, the Sacco Societies Regulatory Authority (Authority), **HEREBY PUBLISHES** for the notification of the general public that:

a) The SACCO Societies listed in **SCHEDULE** I have been duly licensed to carry out deposit-taking SACCO business in Kenya in accordance with section 26(1) of the Act for the financial year ending on **31st December, 2019**
b) The SACCO Societies listed in **SCHEDULE** II have been granted **conditional licenses** to carry out deposit-taking Sacco business in Kenya in accordance with section 26(1) of the Act for the financial year ending on **31st December, 2019**
c) The SACCO Societies listed in **SCHEDULE** III have been granted **conditionally restricted licenses** to carry out deposit-taking Sacco business in Kenya in accordance with section 26(3) of the Act for the period ending **30th June, 2019**

The Authority **FURTHER:**

1. **CAUTIONS**, members of the public generally, and employer institutions (public and private) and mobile payment services providers in particular, to desist from undertaking or transacting deposit-taking SACCO businesses including salary processing and remittances, operations of savings accounts etc. with any SACCO society other than those listed in the **SCHEDULES HEREIN**, or any person, institution or entity what soever purporting to be a SACCO Society; and
2. **PUTS ON NOTICE**, members of the public generally, and employer institutions specifically that any person who undertakes or continues to undertake such deposit-taking business with unlicensed persons, institutions, or entities, shall be doing so at to his/her own risk and peril, and such persons, institutions or entities shall be liable for criminal prosecution under section 23 of the Act; and
3. **ADVISES**, members of the public to exercise caution and due diligence before depositing or saving or investing any money with any entity purporting to be a SACCO Society; including but not limited to obtaining verifications from the Authority or the office of the Commissioner for Cooperative Development on the activities or limits of activities of such entities; and
4. **INVITES**, members of the public or any person or entity with any inquiries, queries, concerns, or complaints concerning the operations or activities of the licensed SACCO Societies listed in the **SCHEDULES HEREIN**, to report the same to the Authority for appropriate intervention within the established regulatory framework

The list of licensed deposit-taking SACCO Societies may also be accessed and/or downloaded from the Authority's website **www.sasra.go.ke**, or upon request to the Authority, and was duly published in the Kenya Gazette No. 572 dated 25th January, 2019.

SCHEDULE I: LICENSED SACCO SOCIETIES FOR PERIOD ENDING 31ST DECEMBER, 2019

NO.	NAME OF SOCIETY	POSTAL ADDRESS
1.	2NK Sacco Society Ltd	P.O Box 12196 – 10109, Nyeri
2.	Afya Sacco Society Ltd	P.O. Box 11607 – 00400, Nairobi.
3.	Agro- Chom Sacco Society Ltd	P.O Box 94 – 40107, Muhoroni.
4.	Airports Sacco Society Ltd	P.O. Box 19001 – 00501, Nairobi
5.	All Churches Sacco Society Ltd	P.O Box 2036 – 01000, Thika.
6.	Amica Sacco Society Ltd	P.O. Box 816 – 10200, Murang'a.
7.	Ardhi Sacco Society Ltd	P.O. Box 28782 – 00200, Nairobi.
8.	Asili Sacco Society Ltd	P.O. Box 49064 – 00100, Nairobi.
9.	Azima Sacco Society Ltd	P.O. Box 1124 – 01000, Thika.
10.	Bandari Sacco Society Ltd	P.O Box 95011 – 80104, Mombasa.
11.	Banika Sacco Society Ltd	P.O. Box 1548 – 10101, Karatina.
12.	Baraton University Sacco Society Ltd	P.O Box 2500 – 30100, Eldoret.
13.	Biashara Sacco Society Ltd	P.O. Box 1895 – 10100, Nyeri.
14.	Biashara Tosha Sacco Society Ltd	P.O Box 189 – 60101, Manyatta.
15.	Bi-High Sacco Society Ltd	P.O. Box 90 – 60500, Marsabit.
16.	Bingwa Sacco Society Ltd	P.O. Box 434 – 10300, Kerugoya.
17.	Boresha Sacco Society Ltd	P.O. Box 80 – 20103, Eldama Ravine.
18.	Capital Sacco Society Ltd	P.O Box 1479 – 60200, Meru.
19.	Centenary Sacco Society Ltd	P.O. Box 1207 – 60200, Meru.
20.	Chai Sacco Society Ltd	P.O. Box 278 – 00200, Nairobi.
21.	Chuna Sacco Society Ltd	P.O. Box 30197 – 00100, Nairobi.
22.	Comoco Sacco Society Ltd	P.O. Box 3334 – 00200, Nairobi.
23.	Cosmopolitan Sacco Society Ltd	P.O. Box 1931 – 20100, Nakuru.
24.	County Sacco Society Ltd	P.O. Box 21 – 60103, Runyenjes.
25.	Daima Sacco Society Ltd	P.O. Box 2032 – 60100, Embu.
26.	Dhabiti Sacco Society Ltd	P.O. Box 353 – 60600, Maua.
27.	Dimkes Sacco Society Ltd	P.O. Box 886 – 00900, Kiambu.
28.	Dumisha Sacco Society Ltd	P.O Box 84 – 20600, Mararal.
29.	Eco-Pillar Sacco Society Ltd	P.O. Box 48 – 30600, Kapenguria.
30.	Egerton Sacco Society Ltd	P.O. Box 178 – 20115, Egerton.
31.	Elimu Sacco Society Ltd	P.O Box 10073 – 00100, Nairobi.
32.	Enea Sacco Society Ltd	P.O. Box 1836 – 10101, Karatina.
33.	Faridi Sacco Society Ltd	P.O. Box 448 – 50400, Busia.
34.	Fanja Sacco Society Ltd	P.O. Box 589 – 00216, Githunguri.
35.	Fortitude Sacco Society Ltd	P.O. Box 237 – 40305, Mbita.
36.	Fortune Sacco Society Ltd	P.O. Box 559 – 10300, Kerugoya.
37.	Fundilima Sacco Society Ltd	P.O. Box 62000 – 00200, Nairobi.
38.	GDC Sacco Society Ltd	P.O Box896 – 00216, Githunguri.
39.	Good Faith Sacco Society Ltd	P.O. Box 224 – 00222, Uplands
40.	Goodway Sacco Society Ltd	P.O Box 626 – 10300, Kerugoya.
41.	Gusii Mwalimu Sacco Society Ltd	P.O. Box 1335 – 40200, Kisii.
42.	Harambee Sacco Society Ltd	P.O. Box 47815 – 00100, Nairobi.
43.	Hazina Sacco Society Ltd	P.O. Box 59877 – 00200, Nairobi.
44.	IG Sacco Society Ltd	P.O. Box 1150 – 50100, Kakamega.
45.	Ikisenkio Sacco Society Ltd	P.O Box 91 – 00209, Loitoktok.
46.	Imarika Sacco Society Ltd	P.O. Box 712 – 80108, Kilifi.
47.	Imarisha Sacco Society Ltd	P.O. Box 682 – 20200, Kericho.
48.	Imenti Sacco Society Ltd	P.O. Box 3192 – 60200, Meru.
49.	Jacaranda Sacco Society Ltd	P.O. Box 1767 – 00232, Ruiru.
50.	Jamii Sacco Society Ltd	P.O. Box 57929 – 00200, Nairobi.
51.	Joinas Sacco Society Ltd	P.O. Box 669 – 00219, Karuri.
52.	Kencream Sacco Society Ltd	P.O. Box 300131 – 00200, Nairobi
53.	Kenpipo Sacco Society Ltd	P.O. Box 314 – 00507, Nairobi.
54.	Kenversity Sacco Society Ltd	P.O. Box 10263 – 00100, Nairobi.
55.	Kenya Achievas Sacco Society Ltd	P.O. Box 3080 – 40200, Kisii.
56.	Kenya Bankers Sacco Society Ltd	P.O. Box 73236 – 00200, Nairobi.
57.	Kenya Highlands Sacco Society Ltd	P.O. Box 2085 – 002000, Kericho.
58.	Kenya Police Sacco Society Ltd	P.O. Box 51042 – 00200, Nairobi.
59.	Kimbilio Dairna Sacco Society Ltd	P.O. Box 81 – 20225, Kimulot.
60.	Kingdom Sacco Society Ltd	P.O. Box 8017 – 00300, Nairobi.
61.	Kipsigis Edis Sacco Society Ltd	P.O Box 228 – 20400, Bomet.
62.	Kite Sacco Society Ltd	P.O. Box 2073 – 40100, Kisumu.
63.	Kitui Teachers Sacco Society Ltd	P.O. Box 254 – 90200, Kitui.
64.	KMFRI Sacco Society Ltd	P.O. Box 80862 – 80100, Mombasa.
65.	Kolenge Tea Sacco Society Ltd	P.O Box 291 – 30301, Nandi Hills.
66.	Koru Sacco Society Ltd	P.O. Box Private Bag-40100, Koru
67.	K-Pillar Sacco Society Ltd	P.O. Box 83 – 20403, Mogogosiek.
68.	K-Unity Sacco Society Ltd	P.O. Box 268 – 00900, Kiambu.
69.	Kwetu Sacco Society Ltd	P.O Box 818 – 90100, Machakos.
70.	Lainisha Sacco Society Ltd	P.O. Box 272 – 10303, Wang'uru.
71.	Lamu Teachers Sacco Society Ltd	P.O. Box 110 – 80500, Lamu.
72.	Lengo Sacco Society Ltd	P.O. Box 1005 – 80200, Malindi.
73.	Mafanikio Sacco Society Ltd	P.O Box 86515 – 80100, Mombasa.
74.	Magadi Sacco Society Ltd	P.O. Box 13 – 00205, Magadi.
75.	Magenza Sacco Society Ltd	P.O. Box 53131 – 00200, Nairobi.
76.	Maisha Bora Sacco Society Ltd	P.O. Box 30062 – 00100, Nairobi.
77.	Mentor Sacco Society Ltd	P.O. Box 789 – 10200, Murang'a.
78.	Metropolitan National Sacco Society Ltd	P.O. Box 871 – 00900, Kiambu
79.	MMH Sacco Society Ltd	P.O. Box 469 – 60600, Maua.
80.	Mombasa Port Sacco Society Ltd	P.O. Box 95372 – 80104, Mombasa.
81.	Mudete Tea Growers Sacco Society Ltd	P.O. Box 221 – 41053, Khayega.
82.	Muki Sacco Society Ltd	P.O Box 398 – 20318, North Kinangop
83.	Mwalimu National Sacco Society Ltd	P.O. Box 62641 – 00200, Nairobi.
84.	Mwitheri Sacco Society Ltd	P.O. Box 2445 – 60100, Embu.
85.	Mwingi Mwalimu Sacco Society Ltd	P.O Box 489 – 90400, Mwingi.
86.	Mwito Sacco Society Ltd	P.O. Box 56763 – 00200, Nairobi.
87.	Nacico Sacco Society Ltd	P.O. Box 34525 – 00100, Nairobi.
88.	Nafaka Sacco Society Ltd	P.O. Box 30586 – 00100, Nairobi.
89.	Nandi Farmers Sacco	P.O Box 333 – 30301, Nandi Hills
90.	Nassefu Sacco Society Ltd	P.O. Box 43338 – 00100, Nairobi.
91.	Nation Sacco Society Ltd	P.O. Box 22022 – 00400, Nairobi.
92.	Nawiri Sacco Society Ltd	P.O Box 400 – 60100, Embu.
93.	Ndege Chai Sacco Society Ltd	P.O. Box 857 – 20200, Kericho.
94.	Ndosha Sacco Society Ltd	P.O. Box 532 – 60401, Chogoria– Maara.
95.	New Forties Sacco Society Ltd	P.O. Box 1939 – 10100, Nyeri.
96.	Nexus Sacco Society Ltd	P.O Box 251 – 60202, Nkubu.
97.	Nginsha Sacco Society Ltd	P.O. Box 1199 – 50200, Bungoma.
98.	Noble Sacco Society Ltd	P.O. Box 3466 – 30100, Eldoret.
99.	NRS Sacco Society Ltd	P. O Box 575 – 00902, Kikuyu.
100.	Nufaika Sacco Society Ltd	P.O Box 735 – 10300, Kerugoya.
101.	Nyala Vision Sacco Society Ltd	P.O Box 27 – 20306, Ndaragwa.
102.	Nyamberere Amini Sacco Society Ltd	P.O. Box 493 – 60600, Maua.
103.	Nyamira Sacco Society Ltd	P.O. Box 633 – 40500, Nyamira
104.	Nyati Sacco Society Ltd	P.O. Box 7601 – 00200, Nairobi
105.	Ollin Sacco Society Ltd	P.O Box 83 – 10300, Kerugoya.
106.	Patnas Sacco Society Ltd	P.O Box 601 – 20210, Litein
107.	Prime Time Sacco	P.O. Box 512 – 30700, Iten
108.	PUAN Sacco Society Ltd	P.O Box 404 – 20500, Narok.
109.	Qwetu Sacco Society Ltd	P.O Box 1186 – 80304, Wundanyi
110.	Rachuonyo Teachers Sacco Society Ltd	P.O. Box 147 – 40332, Kosele.
111.	Safaricom Sacco Society Ltd	P.O. Box 66827 – 00800, Nairobi.
112.	Sheria Sacco Society Ltd	P.O. Box 34390 – 00100, Nairobi.
113.	Shinka Sacco Society Ltd	P.O Box 43429 – 00100, Nairobi.
114.	Shoppers Sacco Society Ltd	P.O. Box 16 – 00507, Nairobi
115.	Simba Chai Sacco Society Ltd	P.O. Box 977 – 20200, Kericho.
116.	Sinji Sacco Society Ltd	P.O. Box Private Bag, Timau.
117.	Skyline Sacco Society Ltd	P.O. Box 660 – 20103, Eldama Ravine.
118.	Smart Champions Sacco Society Ltd	P.O Box 64 – 60205, Githimgo
119.	Smart Life Sacco Society Ltd	P.O Box 118 – 30705, Kapsowar.
120.	Solution Sacco Society Ltd	P.O. Box 1694 – 60200, Meru.
121.	Sotico Sacco Society Ltd	P.O. Box 869 – 20406, Sotik.
122.	Southern Star Sacco Society Ltd	P.O Box 514 – 60400, Chuka.
123.	Stake Kenya Sacco Society Ltd	P.O. Box 208 – 40413, Kehancha.
124.	Stanvisha Sacco Society Ltd	P.O Box 27 – 50203, Kapsokwony.
125.	Stima Sacco Society Ltd	P.O. Box 76629 – 00100, Nairobi.
126.	Supa Sacco Society Ltd	P.O. Box 271 – 20600, Maralal.
127.	Tabasamu Sacco Society Ltd	P.O. Box 123 – 80403, Kwale.
128.	TAI Sacco Society Ltd	P.O. Box 718 – 00216, Githunguri.
129.	Taifa Sacco Society Ltd	P.O. Box 1649 – 10100, Nyeri.
130.	Taqwa Sacco Society Ltd	P.O. Box 10180 – 00100, Nairobi
131.	Taraji Sacco Society Ltd	P.O. Box 605 – 40600, Siaya.
132.	Tembo Sacco Society Ltd	P.O. Box 91 – 00618, Ruaraka Nairobi.
133.	Tenhos Sacco Society Ltd	P.O. Box 391 – 20400, Bomet.
134.	Thamani Sacco Society Ltd	P.O. Box 467 – 60400, Chuka.
135.	The Apple Sacco Society Ltd	P.O Box 153 – 50305, Sirwa.
136.	Times- U Sacco Society Ltd	P.O. Box 319 – 60202, Nkubu.
137.	Tower Sacco Society Ltd	P.O. Box 259 – 20303, Olkalou.
138.	Trans- Elite County Sacco Society Ltd	P.O Box 547 – 30300, Kapsabet.
139.	Trans Nation Sacco Society Ltd	P.O. Box 15 – 60400, Chuka.
140.	Trans- Counties Sacco Society Ltd	P.O. Box 2965 – 30200, Kitale.
141.	Trans- National Times Sacco Society Ltd	P.O. Box 2234 – 30200, Kitale
142.	Ufanisi Sacco Society Ltd	P.O Box 2973 – 00200, Nairobi.
143.	Ulinzi sacco Society Ltd	P.O Box 872 – 00606, Nairobi.
144.	Ukulima Sacco Society Ltd	P.O. Box 44071 – 00100, Nairobi.
145.	Umaiti Sacco Society Ltd	P.O. Box 38791 – 00100, Nairobi.
146.	Uni- County Sacco Society Ltd	P.O Box 10132 – 20100, Nakuru
147.	Unison Sacco Society Ltd	P.O. Box 414 – 10400, Nanyuki.
148.	United Nations Sacco Society Ltd	P.O. Box 2210 - 00621, Nairobi.
149.	Universal Traders Sacco Society Ltd	P.O. Box 2119 – 90100, Machakos.
150.	Vihiga County Farmers Sacco Society Ltd	P.O Box 309 – 50317, Chavakali.
151.	Viktas Sacco Society Ltd	P.O Box 2183 – 20300, Nyahururu.
152.	Vision Africa Sacco Society Ltd	P.O Box 18263 – 20100, Nakuru.
153.	Vision Point Sacco Society Ltd	P.O. Box 42 – 40502, Nyansiongo.
154.	Wakenya Pamoja Sacco Society Ltd	P.O. Box 829 – 40200, Kisii.
155.	Wakulima Commercial Sacco Society Ltd	P.O. Box 232 – 10103, Mukurweini.
156.	Wanaanga Sacco Society Ltd	P.O. Box 34680 – 00501, Nairobi.
157.	Wananchi Sacco Society Ltd	P.O. Box 910 – 10106, Othaya.
158.	Wanandege Sacco Society Ltd	P.O. Box 19074 – 00501, Nairobi.
159.	Washa Sacco Society Ltd	P.O. Box 83256 – 80100, Mombasa.
160.	Waumini Sacco Society Ltd	P.O. Box 66121 – 00800, Nairobi.
161.	Weversity Sacco Society Ltd	P.O Box 873 – 50100, Kakamega
162.	Winas Sacco Society Ltd	P.O. Box 696 – 60100, Embu.
163.	Yetu Sacco Society Ltd	P.O. Box 511 – 60202, Nkubu.

SCHEDULE II: LICENSED SACCO SOCIETIES WITH CONDITIONS ATTACHED FOR THE PERIOD ENDING 31ST DECEMBER, 2019

NO.	NAME OF SOCIETY	POSTAL ADDRESS
1.	Amabkoi Sacco Society Ltd	P.O. Box 120 – 30101, Amabkoi
2.	Goodhope Sacco Society Ltd	P.O. Box 158 – 20500, Narok.
3.	Jitegemee Sacco Society Ltd	P.O. Box 86937 – 80100, Mombasa.
4.	Jumuika Sacco Society Ltd	P.O. Box 14 – 40112, Awasi.
5.	Kenya Midland Sacco Society Ltd	P.O Box 287 – 20400, Bomet.
6.	Nandi Hekima Sacco Society Ltd	P.O. Box 211 – 30300, Kapsabet.
7.	Namyuki Equator Sacco Society Ltd	P.O Box 1098 – 10400, Nanyuki
8.	Orient Sacco Society Ltd	P.O. Box 1842 – 01000, Thika.
9.	Sukari Sacco Society Ltd	P.O Box 841 – 50102, Mumias
10.	Teleposti Sacco Society Ltd	P.O. Box 49557 – 00100, Nairobi
11.	Uchongaji Sacco Society Ltd	P.O. Box 92503 – 80102, Mombasa.

SCHEDULE III: LICENSED SACCO SOCIETIES RESTRICTED TO THE PERIOD ENDING 30TH JUNE, 2019

NO	NAME OF SOCIETY	POSTAL ADDRESS
1.	Miliki Sacco Society Ltd	P.O. Box 43582 – 10100, Nairobi

Dated 31st March 2019
JOHN MWAKA
CHIEF EXECUTIVE OFFICER

APPENDIX II: RESEARCH PERMIT LETTER

Chiromo Rd, Westlands Estate,
P.O Box 59857 00200,Nairobi, Kenya.
Cell: +254 703 414 464, Twitter: @SBSKenya
Email: info@sbs.ac.ke or visit www.sbs.strathmore.edu

Strathmore UNIVERSITY
BUSINESS SCHOOL

25th October 2021

To whom it may concern,

Dear Sir/ Madam

RE: FACILITATION OF RESEARCH – KENNEDY OPONDO

This is to introduce Kennedy Opondo who is a Master of Commerce (MCOM) Student at Strathmore University Business School, admission number MCOM/083482. As part of our MCOM Program, Kennedy is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MCOM course. To this effect, Kennedy would like to request for appropriate data from your organization.

Kennedy is undertaking a research paper on **"DETERMINANTS OF FINANCIAL SUSTAINABILITY OF DEPOSIT TAKING SACCOS IN KENYA."** The information obtained shall be treated confidentially and shall be used for academic purposes only.

Our MCOM seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours sincerely,

Njoki Kiagiri
Associate Manager – Graduate Programs.
Strathmore University Business School.

APPENDIX III: NACOSTI APPROVAL

Strathmore UNIVERSITY

18th November 2021

Mr Ongoro Kennedy,
kennedy.ongoro@strathmore.edu

Dear Mr Ongoro,

RE: Determinants of Financial Sustainability of Deposit Taking SACCOs in Kenya

This is to inform you that SU-IERC has reviewed and **approved** your above **SU-master's** research proposal. Your application reference number is **SU-IERC1209/21.** The approval period is **18th November 2021 to 17th November 2022.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 48 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 48 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

for: Prof Fred Were,
Chairperson; SU-IERC

STRATHMORE UNIVERSITY INSTITUTIONAL ETHICS REVIEW COMMITTEE (SU-IERC)
18 Nov 2021
TEL: +254 (0)703034000
P.O BOX 59857-00200
NAIROBI-KENYA