

**SELECTED FACTORS INFLUENCING FINANCIAL PERFORMANCE OF
SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN KENYA: A SURVEY OF
DEPOSIT TAKING SACCOs IN KERICHO COUNTY**

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DECLARATION AND APPROVAL

Declaration

This project is my original work and has not been presented for a degree or any other award in any other university.

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Approval

This project has been submitted for examination with our approval as the University Supervisors.

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DEDICATION

I dedicate this project to my Parents, my siblings and friends for their unending support and believing in me throughout my academic journey. I am and will forever be grateful.

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My great appreciation and thanks goes to the Almighty God for His grace and good health. Secondly, to my supervisors Dr. Irene C. Asienga and Mr. Kibet Kirui who passionately encouraged and guided me. I equally salute the staff of Kabarak University for their service. I am also indebted to my dear friends and family who encouraged and stood with me on many occasions.

TABLE OF CONTENTS

DECLARATION AND APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
ABSTRACT	vii
LIST OF TABLES	viii
ABBREVIATIONS AND ACRONYMS	x
CHAPTER ONE	1
INTRODUCTION	1
1.1 Introduction of the study	1
1.2 Background of the Study	1
1.2.1 History of Savings and Credit Cooperatives in Africa	3
1.2.2 Financial Performance of Savings and Credit Cooperative in Kenya	5
1.3 Statement of the Problem	7
1.4 General Objective.....	7
1.5 Specific Objectives.....	7
1.6 Research Hypotheses.....	8
1.7 Significance of the study	8
1.8 Scope of the study	8
1.9 Justification of the Study.....	9
1.10 Assumptions of the study	9
1.11 Limitations and Delimitations of the study	9
1.12 Operational Definition of Terms	10
CHAPTER TWO	11
LITERATURE REVIEW	11
2.1 Introduction	11
2.2 Theoretical Framework	11
2.2.1 The Theory of Human Motivation.....	11
2.2.2 Free Cash Flow Theory	12
2.3 Empirical Review.....	12
2.3.1 Information Technology and Financial Performance of SACCOs	13
2.3.3 Interest Rates and Financial Performance of SACCOs.....	18
2.3.4 Competition from Commercial Banks and Financial Performance of SACCOs	19

CHAPTER THREE	24
RESEARCH METHODOLOGY	24
3.1 Introduction	24
3.2 Research Design	24
3.3 Target Population	24
3.4 Sampling Procedure and Sample Size.....	25
3.5 Data Collection and Procedure.....	26
3.6 Reliability and Validity	26
3.7 Data Analysis and Presentation.....	27
3.8 Ethical Consideration	27
CHAPTER FOUR.....	28
DATA ANALYSIS, INTERPRETATIONS AND DISCUSSIONS	28
4.1 Introduction	28
4.2 Response Rate	28
4.3 Demographic characteristics	28
4.4 Information Technology and Financial Performance of SACCOs	30
4.5 Loan Repayment and Financial Performance of SACCOs	32
4.6 Interest Rate Charged and Financial Performance of SACCOs.....	36
4.7 Competition from Commercial Banks and Financial Performance	39
4.8 Financial Performance of SACCOs	41
4.9 Inferential Statistics.....	42
CHAPTER FIVE	49
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	49
5.1 Introduction	49
5.2 Summary of Major Findings	49
5.3 Conclusions	51
5.4 Policy Recommendations.....	53
5.5 Suggestions for Further Study.....	54
REFERENCES.....	55
APPENDICES	63
APPENDIX I: LETTER OF INTRODUCTION.....	63
APPENDIX II: INTRODUCTORY LETTER.....	64
APPENDIX III: QUESTIONNAIRE.....	65
APPENDIX IV: SACCOs IN KERICHO COUNTY	71

ABSTRACT

Savings and Credit Cooperative Societies (SACCOs) play an essential role in economic development as part of the financial system. In Kenya, 63% of population benefit from SACCOs. SACCOs are vital instrument embraced by Kenyan Government towards increasing financial inclusion especially now that financial transactions are tending towards a cashless economy. Despite of its success it is faced with a number of challenges with the key being adoption of latest information technology and computerization. Therefore, the overall objective was to establish the factors influencing financial performance of deposit taking savings and credit cooperative societies in Kericho County. More specifically the study sought to determine the influence of information technology; loan repayment, interest rates charged by SACCO and competition from commercial banks on financial performance of Deposit Taking SACCOs in Kericho County. The key limitation of the study was that the respondents were reluctant in giving information fearing that the information they gave could be used to intimidate them or paint a negative image about them or their SACCOs. Descriptive research design was used in this study. The target population of this study was all the six deposit taking SACCOs in Kericho County consisting of 234 employees, from whom a sample of 75 employees was selected. Data collected was primary data. Reliability of the research instrument was calculated using Cronbach's coefficient alpha of 0.7472. Data was collected using questionnaires and analyzed using both descriptive statistics and inferential statistics with the aid of Statistical Package for Social Scientists (SPSS). The correlation analysis revealed that all variables had a positive correlation relationship on the dependent variable. Multiple linear regression analysis results showed that information technology ($\beta = 0.564$), loan repayment ($\beta = 0.218$), interest rate charged by SACCO, ($\beta = 0.095$) and competition from commercial banks ($\beta = 0.019$) were all significant. Data was presented using tables and figures. The study concluded that all the variables of the study were important factors in financial performance of the SACCOs and needed to be addressed beginning with the most crucial which was in this case Information technology. It is recommended that SACCO managers should embrace and incorporate up-to-date information technology system in their efforts to gain competitive advantage over their other rivals in the market, impose strict measures on loan borrowers who fail to repay on due date and engage their employees when making changes in their system for smooth operations.

Keywords: Deposit Taking SACCOs, Financial Performance, Information Technology, Interest Rate charged by SACCO, loan repayment, Competition from Commercial Banks

LIST OF TABLES

Table 3.2: Stratified proportional sample size	26
Table 4.1(a): Gender characteristics by Education level of the respondents	28
Table 4.1 (b): Gender characteristics by work experience	29
Table 4.1 (c): The Number of branches of each Sacco.....	29
Table 4.2 (a): Form of Information technology utilized	30
Table 4.2 (b): Information Technology and financial performance	31
Table 4.3 (a): Systems used in loan repayment	33
Table 4.3 (b): Maximum repayment period	34
Table 4.3 (c): Loan repayment and financial performance.....	35
Table 4.4 (a): Level of inflation in the country for the past two years	37
Table 4.4 (b): Interest rate charged	37
Table 4.4 (c): Interest rate charged by SACCO on financial performance.....	38
Table 4.5: Competition from commercial banks and financial performance	39
Table 4.6: Financial Performance of SACCOs.....	41
Table 4.7 Summary of Correlations.....	43
Table 4.8: Multiple Regression Analysis Model	44
Table 4.9: Summary of ANOVA – Based on Financial Performance of DTS	45
Table 4.10: Multiple Linear Regression Results.....	45
Table 4.10(b): Multicollinearity statistics.....	47

LIST OF FIGURES

Figure 2.1 Conceptual Framework	22
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ABBREVIATIONS AND ACRONYMS

ACCOSCA	:	African Confederation of Cooperative Savings and Credit Association
ANOVA	:	Analysis of Variance
ATM	:	Automated Teller Machine
CBK	:	Central Bank of Kenya
CCTV	:	Closed Circuit Television
DTS	:	Deposit Taking SACCO
E-BANKING:		Electronic Banking
FOSA	:	Front Office SACCO Activity
GDP	:	Gross Domestic Product
GOK	:	Government of Kenya
IJBMR	:	International Journal of Business and Management Research
IT	:	Information Technology
KNBS	:	Kenya National Bureau of Statistics
KUSCCO	:	Kenya Union of Savings and Credit Cooperative Organization
MFI s	:	Microfinance Institutions
ROK	:	Republic of Kenya
SACCO	:	Savings and Credit Cooperative Society
SASRA	:	SACCO Societies Regulatory Authority
SPSS	:	Statistical Package for Social Science
VIF	:	Variance Inflation Factor
WOCCU	:	World Council of Credit Unions

CHAPTER ONE

INTRODUCTION

1.1 Introduction of the study

This chapter presents the background of the study, statement of the problem, general objectives, specific objectives, research hypothesis, significance of the study, scope of the study, justification, limitations and delimitation of the study and operational definition of terms.

1.2 Background of the Study

The Kenya financial sector comprises of players from banking industry, micro finance institutions, capital markets, insurance companies, mutual funds and development finance institutions seeking to gain competitive advantage over each other (CBK, 2007). Savings and Credit Cooperatives (SACCOs) form part of these financial institutions. Cooperative society is an independent association of persons united voluntarily to meet their common economic, cultural needs and aspirations; cooperative society is formed to pool scarce resources, eliminate the middlemen and to achieve a common goal or interest (Republic of Kenya, 2008). Credit cooperatives are formed with the purpose of providing short-term loans and encourage the habit of saving among members. Members of these organizations benefit from favorable terms catered to their needs as compared to other large financial institutions like commercial banks (Singla, 2008).

The Deposit Taking Sacco Societies (DTSS) is part of the larger SACCO sub-sector in Kenya which comprises the deposit taking and the non deposit taking Sacco Societies. The non-deposit taking segment is composed of those Sacco Societies whose business is limited to mobilization of deposits (non-withdrawable) for purposes of lending to members. The deposits are non-withdrawable in that they may be used as collaterals for loans only and can only be refunded upon the member's withdrawal (Sacco supervision annual report, 2014). Deposit Taking SACCOs (DTS) offer various basic savings and credit products and provide basic banking services (demand deposits, payments services and channels such as quasi banking services commonly known as ATMs), Front Office Service Activities (FOSA) and are licensed and supervised under the Sacco Societies Act of 2008 by the Sacco Societies Regulatory Authority (SASRA) (Kenya Financial Stability Report 2010).

The total number of SACCOs in Kenya stood over 6,000 as at December 2014 and this comprised of over 5,785 non Deposit Taking SACCOs and 215 Deposit Taking SACCOs (DTS) (SACCO, 2014). The DTS are licensed and regulated by SASRA while non DTS are supervised by the Commissioner for Cooperatives (SASRA, 2012). Cooperatives are found in all sectors of the Kenyan economy and provide an important framework for mobilization of both human and capital resources (Ndaka, 2008).

The uniqueness of the Sacco movement is its geographical distribution across Kenya. In all the 47 counties there are numerous Sacco's providing financial access to hitherto financially excluded Kenyans. As envisioned in Kenya's development blueprint, Vision 2030, Sacco's are already playing their critical role of savings mobilization for investments. Many rural and urban Kenyans now own homes and other business enterprises courtesy of funds through their Sacco's (Ombado, 2010). SACCOs despite their uniqueness have recently experienced member reduction, because other financial institutions started targeting the same market. This has made SACCOs to reinvent their competitiveness from the traditional practices to modern business approaches and operations to remain afloat and relevant. They have had to reengineer business processes such as marketing, new product development, technology adoption and market development for competitive advantage (Maina, 2011).

Commercial banks have become a major competitor to the SACCOs by introducing more lending services to potential borrowers. Banks in Kenya have become more accommodating and receptive to borrowers, provision of unsecured loans, faster customer service, and flexible payment schedule and modalities and hence challenge the SACCO operations (Bwisa, 2010). The diversification and demystification of commercial banks have brought stiff competition to SACCOs. Therefore, the previously protected market share has been challenged by competition from commercial banks and other microfinance institutions (Zeithaml & Bitner, 2009). Okungu, Nyongesa and Momanyi (2014) found out that SACCOs receive stiff competition from commercial banks; as a result, many SACCO members have moved to borrow loans from the commercial banks.

A study by WOCCU (2008) revealed that SACCOs face severe liquidity problem and majority are unable to meet the demands of their clients for loans and withdrawal of savings. Amedeo, Espenlaub, Khurshed and Simkovic (2010) found out that some cooperatives in Kenya were having troubles in its operations due to their poor financial state. Also, Agarwal and Mohtadi (2004) found out that the basis of balanced financial position in SACCOs is as a

result of existence of savers and the borrowers of funds continuously. However, there are conflicts of interest which are as a result of intrinsic balance as borrowers want low loan interest rates, low transaction costs and lax discipline while savers demand high deposit interest rates and strong prudential disciplines, since savers have strong incentives to see the institutional viability strengthened by profitability while borrowers' short term incentives favor conditions like lax discipline, low loan rates and easy access to loans resulting to adverse affect on the financial stability of SACCOs.

SACCO societies and Micro finance institutions are lagging behind in their use of Information Technology systems thus, slowing down their role of providing financial help to those without bank accounts. Unlike commercial banks which are racing into new technology such as mobile banking and improving their software systems to boost efficiency and accuracy, increasing outreach, and reducing costs, SACCOs have been slow to adopt technology (Were, 2009). Additionally, Beck and Kunt (2006) states that loan evaluation system and ability of members to repay within a specified timeframe has not always been considered sufficiently in the loan application process since cooperatives relied to a certain extent on the common bonds shared by members which fostered a trust between members.

According to the Annual reports of Kenya Union of Savings and Credit Cooperative Organization (2009), apart from the commercial banks, the Pyramid Schemes became a challenge to the SACCOs, some members borrowed loans from Sacco and other financial institutions, promised to get three times the amount invested into the Pyramid Scheme. Although, SACCOs charge 1.5% interest per month on loan on reducing balance while commercial banks charge about a fixed rate of 18% per month yet Sacco members continue to seek credit facilities from commercial banks consequently reducing their savings and borrowing capacity. If the trend continues the SACCOs are likely to collapse. Therefore, Cooperative Societies need to keep up with changing member or customer demands, technology and regulatory requirements (SASRA, 2013). Based on these contextual facts this study aims to fill the knowledge gap on the factors that influence financial performance of Deposit Taking SACCOs in Kericho County.

1.2.1 History of Savings and Credit Cooperatives in Africa

The first Sacco Society in Africa was introduced in Ghana in 1959. The Sacco was intended to assist villagers improve their economic conditions (Ng'ombe & Mikwamba, 2004). English

speaking nations were the first to adopt SACCOs. The first countries to enter SACCO community include Ghana, Uganda, Nigeria, Tanzania and Kenya. Most of the Non-English speaking nations in Africa started appreciating SACCOs in 1960s, with major influx into Sacco community in 1970s (Mwakajumilo, 2011). The formation of SACCOs in Africa grew immensely to the extent that the African countries formed a continental association of SACCOs, Africa Confederation of Cooperative Society Savings and Credit Association (ACCOSSCA) in 1965. ACCOSSCA was formed with the principal objective of promoting the Sacco principles, offer Sacco insurance and educate members on Sacco issues (Ng'ombe & Mikwamba, 2004). There are 28 countries in Africa that have established SACCOs (Savings Plus, 2010).

In Kenya, the first Cooperative Society was Lumbwa Co-operative Society formed in 1908 by the European Farmers with the main objective of supporting agricultural activities and products to take advantage of economies of scale (Kenya Union of Saving and Credit Cooperatives, 2008). Notably, after independence, the Government of Kenya recognized cooperatives as suitable vehicles with appropriate framework to achieve their aspirations and participate in the economic development of the nation. Accordingly, steps were taken by the government which saw the rapid growth and expansion of the Sacco Society movement in the country (Gardeklint, 2009). The Sacco movement is considered by the government as one of the economic pillars of the nation. Kenya had over 5,000 registered SACCOs with a membership of about 7 million in the year 2010. These Sacco societies have mobilized savings of over Ksh.200 billion (ROK, 2008; Ndung'u, 2010).

The Cooperative Ordinance Act was passed in 1945 where the Government of Kenya (GOK) legally controlled the cooperatives. The act was amended in 1997 where some of the controls from the government were transferred to the Commissioner of Cooperatives under the Cooperative Societies Act 1997. This Act was enacted to provide a policy framework for cooperative development in Kenya therefore delineating these cooperatives from the control of the Government by necessitating the withdrawal of state control over the cooperative movement. The aim was to make cooperatives independent, self-reliant, self-controlled and commercially viable institutions. The role of the government was redefined from one that sought to control cooperative development, to one that now seeks to regulate and facilitate their autonomy. This gave cooperatives a chance to compete with other private enterprises in marketing of agricultural produce (ROK, 1997a).

The cooperative Act of 1997 was amended in 2004 through the cooperative societies (amendment) act of 2004 which was enacted to re-enforce state regulation of the cooperative movement through the office of the Commissioner for Cooperatives Development. However, the SACCO Societies Act of 2008 was enacted later to provide for licensing, regulation, supervision and promotion of savings and credit cooperatives by the SACCO Societies Regulatory Authority (SASRA). The government of Kenya established SASRA under the Ministry of Cooperative Development and Marketing whose functions include licensing SACCOs to carry out deposit-taking business as well as regulating and supervising SACCOs in an effort to reform SACCOs and ensure that the public has confidence in the SACCOs sector and thus spur Kenya's economic growth through mobilization of domestic savings (ROK, 2008b; Wanyama, 2009).

1.2.2 Financial Performance of Savings and Credit Cooperative in Kenya

Financial performance measures how well a firm uses its assets to generate revenue from its primary mode of business. It is a general measure of financial health of a firm over a given period and compares performance of firms in an industry or industries in aggregation (McConnell, 2007). Profitability is one of the ways to measure financial performance is the ability of management to utilize an organization's resources to create profits and cash flows. This is measured through various ratios like net profit margin, return on investments, and return on assets. The most common liquidity ratio is the current ratio, which is the ratio of current assets to current liabilities. This ratio indicates a company's ability to pay its short-term bills. Companies can improve the current ratio by paying down debt, converting short-term debt into longterm debt, collecting its receivables faster and buying inventory only when necessary (Mbui, 2010). SACCOs have to be efficient for it to achieve sound financial performance standards; efficiency refers to an organization's ability to utilize the limited resources at hand to generate the most of revenue by minimizing wastages thus making savings (Muriuki, 2010).

According to Thachappilly (2011), financial performance forms an important part of the SACCO business and it is crucial for their survival. Successful financial performance in the Sacco has a positive association with the capacity to manage financial issues effectively. Haber and Reichel (2005) provide evidence of a positive association between financially related activities (such as planning and financial control) and the successful financial performance of SACCOs. Mbonyane (2006) sees financial performance as the life blood of

small-scale organizations, since without them, no growth decisions can be made. In a country where the financial sector is dominated by SACCOs, any failure in the sub-sector has an immense implication on the economic growth of the country. This is due to the fact that any bankruptcy that could happen in the subsector has a contagion effect that can lead to crises and bring overall financial crisis and economic tribulations (Mboyane, 2006).

According to Piesse and Townsend (1995) members of credit unions are interested in minimizing the cost of funds for loans while at the same time seeking safe and profitable avenues for their savings and this makes their objective rather intricate. Thus credit unions would be more efficient by minimizing the operating expenses and raising non retail funds cheaply while earning high returns on non retail investment. Cooperatives can provide financial services to their members through existing products and the members also have the opportunity to save with the cooperative, but this is possible if cooperatives are financially sustainable. The financial performance of a SACCO is measured through the ability of the institution to meet the financial demands of its members taking consideration of economic status of the members. SACCO is expected to give better and cheaper services to its members as compared to commercial banks because SACCO understands the needs of the members as they are the owners of the SACCO (Wanyama 2008).

SACCOs in Kenya are required every year to register their audited financial statements and reports with the Commissioner of Cooperatives and SASRA which will then evaluate the performance of Sacco's. The report by SASRA evaluates the performance of the Sacco subsector based on the financial data and information extracted from Audited financial statements. It is a legal requirement that the audited accounts of a Sacco be registered with the Commissioner of Cooperatives Development before presentation to members at the AGM (SASRA, 2012). Sacco sub-sector in Kenya is on the growth regime. For instance the total assets for the Sacco subsector grew by 14% close to Ksh.335 billion in 2013 from Ksh.294 billion recorded in 2012. The growth in assets was funded mainly by member deposits for the sector that stood at Kshs.241 billion posting an increase of 8.4 % in 2013 from Kshs.213 billion in 2012. The licensed deposit taking Sacco's increased the gross outstanding loans by 17.4% to close at Kshs.253 billion in December 2013 compared to Kshs.221 billion in December 2012 (SASRA, 2013).

1.3 Statement of the Problem

SACCOs play an essential role in economic development as part of the financial system. In Kenya, 63% of the population is either directly or indirectly benefiting from SACCOs activities (Republic of Kenya, 2013). Financial performance forms an important part of the SACCOs business and it is crucial for their survival (Thachappilly,2011), however; repayment of Sacco loan is not being taken seriously by the current members due to poor management system for loan collection, lack of suitable guarantors and low interest rate charge (Honohan & Beck, 2007). Also, Lack of good computerized systems is a major constraint in efficient operations and it is difficult to track loan delinquencies, aging, provision, write offs and ensure that accountants and financial managers apply business rules consistently. SACCOs face considerable competition from banks which provide loans quicker, with less paperwork, less charges and less collateral requirements (Owen, 2007). This high failure rate of SACCOs continues to frustrate the Millennium Development Goals and Vision 2030 objectives of increasing financial inclusion (Pollet, 2013).Despite government significant initiative to support cooperative movements through legislation there are SACCOs which are not operational in Kericho County. This study therefore seeks to investigate factors influencing financial performance of Deposit Taking SACCOs in Kericho County.

1.4 General Objective

The general objective of this study was to investigate factors influencing financial performance of Deposit Taking Savings and Credit Cooperative Societies (DTS) in Kericho County.

1.5 Specific Objectives

This study was guided by the following specific objectives:

- i) To determine the influence of Information technology on financial performance of Deposit Taking SACCOs in Kericho County
- ii) To determine the influence of loan repayment on financial performance of Deposit Taking SACCOs in Kericho County
- iii) To determine the influence of interest rates charged by SACCOs on financial performance of Deposit Taking SACCOs in Kericho County
- iv) To establish the extent to which competition from commercial banks influence financial performance of Deposit Taking SACCOs in Kericho County.

1.6 Research Hypotheses

In an attempt to achieve the above objectives, this study developed the following hypotheses:-

Ho₁: There is no significant relationship between information technology and financial performance of Deposit Taking SACCOs in Kericho County

Ho₂: There is no significant relationship between loan repayment and financial performance of Deposit Taking SACCOs in Kericho County

Ho₃: There is no significant relationship between interest rate charged by SACCOs and financial performance of Deposit Taking SACCOs in Kericho County

Ho₄: There is no significant relationship between competition from commercial banks and financial performance of Deposit Taking SACCOs in Kericho County

1.7 Significance of the study

The findings of this study will be of great importance to the management of Deposit Taking SACCOs in Kericho County as it will give insight to the management on discovering new and better techniques of improving and running their operations in order to improve their financial performance by improving on those factors that makes them lag behind as compared to commercial banks operating in the County and ultimate goal of ensuring growth and sustainable income and maximum benefit to the members. This research will also help SACCO's service providers, policy makers and regulators in formulating workable procedures to help SACCOs have the capacity to provide better services to its members who are not able to access financial services from commercial banks. Finally, the study will identify the knowledge gaps and provide suggestions for further research. This will form a base for scholars who are interested in conducting research in this area in future.

1.8 Scope of the study

The target population of this study was the six Deposit Taking SACCOs licensed by SASRA operating in Kericho County; this setting was considered sufficient and appropriate for examination of the research objectives guiding the study. This study was conducted in August 2016. The research assessed the financial performance of SACCOs by establishing the influence of information technology, loan repayment, interest rate charged by Sacco and competition from commercial banks on the financial performance of SACCOs.

1.9 Justification of the Study

A survey of Deposit Taking SACCOs was carried out given the enormous impact of such SACCOs on Kenyan economy and the fact that SACCOs have moved from traditional saving and lending activities to investments and banking services through front office and back office services (KUSCCO, 2009). Cooperative sector remains one of the vibrant economic techniques of poverty eradication, wealth and job creation, rural development and even financing of other small and medium enterprises. Studies have been conducted in this sector and more are needed to be done in order to address the major challenges including investment decisions which influence financial performance in this important sector.

1.10 Assumptions of the study

The researcher assumed that the respondents of the study would be supportive, and that they would find time to fill in the questionnaires. The researcher also, assumed that enough resources would be available to carry out the research and access respondents in time.

1.11 Limitations and Delimitations of the study

The respondents were reluctant in giving information fearing that the information they give may be used to intimidate them or paint a negative image about them or their SACCOs. However, the challenge was overcome by issuing them an introduction letter from the University, informing respondents on relevance of the study and assuring them that the study was purely for academic purposes and the guarantee of the confidentiality of the information given.

1.12 Operational Definition of Terms

Financial Performance-: According to Armstrong (2006), performance is often defined simply in output terms; the achievement of quantified objectives. In this study the indicator of financial performance is profitability.

Information technology-: Technology is made up of discoveries in science, product development and improvements in machinery, process, automation, and information technology (Manyara, 2003). According to this study information technology are the tools and innovations that enhance the operation of SACCOs to give better services to its customers.

Interest rate-: Interest rate is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets (Crowley, 2007). In this study the interest rate is the rate paid in addition to the principal borrowed by an applicant in SACCOs.

Loan repayment-: This is to pay back a loan given by a lender. This includes the principle loan given and the interest charged on the loan (Miriti, 2014). In this study loan repayment is the amount used to repay loan taken by a customer.

Competition-: Is the ability of the firm to increase or maintain its market share of its products or services, which is always under threat by other firms in the same industry (Nkuru, 2015). According to this study competition is the threat posed by commercial banks to SACCOs.

Deposit Taking SACCOs-: SACCO is a business in which the person conducting the business holds himself out as accepting deposits on a day-to-day basis (SACCO, 2008). According to this study Deposit Taking SACCOs are those offering banking services accepting deposits, and issue loans and are authorized by SASRA to operate.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on: theories relevant to the study and review empirical related literature; information technology, loan repayments, interest rates and competition from commercial banks in relation to financial performance of SACCOs. It also describes the conceptual framework and highlights the variables under consideration. According to Zikmund, Babin and Giffin (2010) empirical literature review is a direct search of published work which includes books and periodicals. It is a comprehensive review of previous inquiries related to the research questions.

2.2 Theoretical Framework

2.2.1 The Theory of Human Motivation

Abraham Maslow presented theory of human motivation in 1943 in form of a pyramid with the more basic needs like food, shelter and clothing at the bottom. These are the physiological need which are the physical requirements for human survival and are thought to be the most important and should be met first. SACCOs are first formed because of the rising shortage of basic human needs of the poor. There is need to empower the people to be able to meet their basic desires through small and medium enterprise. Empowerment is a transformative process within human existence from the state of powerlessness to the state of relative control over ones overall existence by taking control over his destiny and making use of his immediate environment for sustainable improvement in their livelihood and better standards of living. SACCO is emerging as a tool of community empowerment and poverty alleviation surrounds the discussion of empowerment theory. Empowerment theory is an alternative development approach as a result of the failures of mainstream development theories in addressing the poverty situation in third world countries due to their emphasis on growth, pursuit of industrialization and urban bias on holding unfulfilled small promises of better life for the excluded and downtrodden majority. This situation pushed the poor people in downward spiral of resources deficit trapped in a vicious life cycle of poverty. Empowerment has become a buzzword in most development and international agencies with most of its discussion centre on power relations, awareness, control, poverty alleviation, development and empowerment (Fagha, 2010).

The contribution of motivation theory on development cannot be over emphasized taking into consideration the numerous emergences of microfinance and microcredit initiatives all around the world and their impact on the local community at large. A good example of success of this theory is from the Grameen Bank in Bangladesh and how its message has been transformed throughout the developing world leading to the emergence of self-help groups as is the case in the India, the Susu's of Ghana, the SACCOs of Tanzania and all aimed at providing microcredit initiatives to the rural poor. Hence microfinance has emerged as a paradigm changed in alternative development despite its challenges. This makes motivation theory a perfect bottom-up approach on development in its manifestation on the convergence of power relation from top-bottom to bottom-up autonomy thereby giving power and wider opportunities to the powerless so that they could use their initiatives, rights and capabilities for the common good of their social settings not only to better their lifestyles and improve their standards of living but gradually moving themselves out the deprivations of poverty in a sustainable manner (Perkins & Zimmerman,1995).

2.2.2 Free Cash Flow Theory

As Huseyin (2011) asserts, managers have an incentive to hoard cash to increase the amount of assets under their control and to gain discretionary power over the firm investment decision (Jensen, 1986). Having cash available to invest, the manager does not need to raise external funds and to provide capital markets detailed information about the firm's investment projects. Therefore, managers could undertake investments that have a negative impact on shareholders wealth. Managers of firms with poor investment opportunities are expected to hold more cash to ensure the availability of funds to invest in growth projects, even if the net present value of these projects is negative. This would lead to destruction of shareholder value and even if the firm has a large investment programme and a low market to-book ratio. Thus, using the market-to-book ratio as a proxy, it is likely that the relation between investment opportunity set and cash holdings will be negative. This is critical in management of liquidity in the firm and ensuring there is a balance between meeting the current obligation to mitigate liquidity short fall and investing in the interest of shareholders wealth maximization (Huseyin, 2011).

2.3 Empirical Review

Empirical literature review is a direct search of published work which includes books and periodicals. It is a comprehensive survey of previous inquiries related to the research questions (Zikmund, Babin, Carr & Griffin, 2010).

2.3.1 Information Technology and Financial Performance of SACCOs

According to Chidambaram and Alagappan (2006), technological changes affect production methods, processes and the way of doing business. Information technology enables a firm achieve its objectives or threaten the existence of the firm. A firm which is not able to cope with changing technology may not survive. For a firm to survive therefore, financial innovation is essential. Schwalbe (2013), noted that to use information technology effectively, one must invest in human resources as well as technology. The production or service method of an organization depends so much on how innovative the organization is. An organization can be innovative when it embraces technology in line with the changing needs of the market. SACCOs need technology to innovate new products and services as well as operational processes for convenience and efficiency. Operational convenience leads to member loyalty for SACCOs and operational efficiency saves on resources. All these components were found to contribute to the financial performance of the SACCO (Alvarez, 2007).

Financial institutions have been revolutionized by information technology especially internet through the electronic financing. E-Finance activities include types of financial activities carried out over the internet such as online banking, electronic trading, the provision and delivery of various financial products and services (Reichheld, 2011). The internet is changing the business environment as the internet is accessed by everyone, a financial institution can no longer dominate by physical presence. The internet and new information technologies have lowered the barrier of entering the finance industry according to Day (2010) thus lowers the initial investment and transactional costs. As a result, an innovation such as e-finance is the driving force that is changing the finance industry making it more competitive. With these financial innovation SACCOs must now turn to e-marketing in order to cope with the current demand to meet the client's expectations and establish durable relationships with customers (Gary, 2006).

According to Brown (2005), SACCOs need to modernize their management systems by adopting information technology in their management to reduce transaction costs and improve the quality of services to their members. According to Owen (2007) lack of good computerized systems is a major constraint in efficient operations. In its absence, it is very difficult to track loan delinquencies, aging, provisioning, write offs, and ensure that accountants and financial managers apply business rules consistently. Furthermore, most

SACCOs have manual or simple spreadsheet-based accounting and MIS systems. Even in the SACCOs which have computerized systems, these are not integrated between front and back office. The exceptions are some of the top SACCOs that are using off the shelf software and some others that have developed customized systems. A key factor constraining the adoption of computerized systems is the limited capacity of SACCO boards and managements.

Research shows that Sacco societies and Micro finance institutions are lagging behind in their use of modern IT systems thus, slowing down their role of providing financial help to those without bank accounts. Unlike commercial banks, which are racing into new technology such as mobile banking and improving their software systems to boost efficiency and accuracy, increasing outreach, and reducing costs, SACCOs have been slow to adopt technology (Were, 2009). The Ministry of cooperatives through its policy document on investment notes that many cooperatives are not computerized while others are partially computerized; SACCOs should link up with private ATM service providers such as Cooperative Bank ATM service which has a country wide network (Republic of Kenya, 2008). ATM, telephone banking and internet banking are three forms of automated service delivery channels which are keys to improving the financial performance of SACCOs (Cooperative Bank, 2008).

Information Technology broadly can allow for a reduction in transactions costs, improved access to timely and usable knowledge, improved communications with markets and within supply chain, acquisition of appropriate skills for enhancement of productivity and improved information about new opportunities (Gunga, 2008). Manyara (2003) observed that the rate of technology adoption and its overall application in cooperatives is generally low and the main reasons for this include conservatism, costs and ignorance. Information Technology increasingly becoming an essential tool for efficient operations of investments cooperatives should be encouraged to use this technology (Republic of Kenya, 2008)

Finance industry has been revolutionized further with the entry of mobile phone-based banking. According to Central Bank of Kenya Mshwari a mobile phone based banking pushed the number of loan borrowers to 1.7 million (Johnston, 2011). Mshwari is a mobile phone based account launched jointly with Commercial Bank of Kenya (CBA) and telecommunication firm Safaricom. Mshwari allows Safaricom subscribers to open bank accounts with CBA through their mobile phones, save money and borrow based on their Mpesa usage records. Other banks such as KCB and Family Bank has initiated similar

products. KCB has recently launched M-Benki through which it is targeting more clients through the mobile platform.

According to Kenya National of Bureau Statistics (2012), Family Bank has launch Pesa mob for the same objective. The mobile phone products allow users to deposit, transfer and borrow money between the automated teller machines and their phones without visiting any bank branch. Linkage to mobile phones to bank accounts has enable access to financial services and credit by low income earners who have been for a long time been excluded due to lack of collateral and banking history. SACCOs therefore have a challenge of retaining and attracting new SACCO members to their Sacco through continuous customer satisfaction and innovations.

In local studies Kalui (2009) found that in order to compete in the global as well as domestic financial markets, financial institutions among them being SACCOs need to adopt and use modern and innovative technology. Maorwe (2011) found that SACCOs should adopt new innovative means and strategies to finance their activities instead of relying on the members deposits alone. Mosongo, Gichana and Nguta (2013) found that SACCOs adopted various types of financial innovation that lead to financial performance; these include process innovation, product innovation, and institutional innovation. Institutional innovation had greatest impact on financial performance, followed by product innovation and last was process innovation.

2.3.2 Loan Repayment and Financial Performance of SACCOs

Loans to members are granted for any productive purpose but the upper limit cannot presently exceed four times the members' shares or deposits and with a maximum repayment period of 48 months. The security for loans is usually composed of the member's own savings in addition to two or three guarantors whose shares and those of the members must exceed the amount of loan applied for. This is to ensure that in case of default, the loan can be recovered fully from the shares of the member and those of his/her guarantors (Cooperatives societies, 1997). Poor loan repayments have negative impact on institutions capital, earning as well as in realizing its objectives and may lead to a financial institution collapse. For instance, failure to manage loan repayment performance results in losses and high delinquency management costs (Ledgerwood, 2000). The high expenses are for closer monitoring, more frequent portfolio and legal fees for pursuing seriously delinquent loans.

Such costs adversely affect the generated income, and, in general, the operations of the lending institution, thus, the institution becomes unsustainable (Njanike, 2009).

In Africa, loan repayment performance has been found to be poor (Bagachwa, 1997). Enforcement of loan repayment constitutes a major difference between rural credit markets in developing countries and credit markets in developed countries. The repayment of loans by the poor and SMEs is recognized as one of the most troublesome problem facing rural SACCOs in Africa (Besley & Coate, 2005). Collateral access to basic information and appropriate loan mechanism to enforce loan repayment are important tools. With the growth of the number of SACCOs in Kenya, access to credit is not difficult but repayment is never 100%. Lenders of funds in the formal financial sector use the deposits of their clients while lenders operating in the informal financial sector use mainly their own funds to advance money to borrowers. The lender is expected to recoup the financial capital after the agreed period of time otherwise the borrowers will benefit at the expense of lenders, if loan repayment fails and this continues then bankrupt will be ultimate result (Besley and Coate, 2005).

According to WOCCU (2008) the financial discipline of provision for loan losses has not been part of the Sacco development since SACCOs have relied on the check-off system of automatic salary deductions for loan repayment for decades. Beck and Kunt (2006) states that loan evaluation system and the ability of members to repay within a specified timeframe has not been sufficiently considered in the loan application process since cooperatives rely on the common bonds shared by members which foster a trust between members. Although the issuance of loans has increased over the years, their risk level as measured by level of non-performing loans deteriorated from 4.72 percent to 5.73 percent in 2014. This indicated an elevated credit risk due to deterioration in performance of loans (SASRA, 2014).

SACCO's sustainability and levels of development basically depend on high recovery of their loans. Loan policies therefore have unquestionable importance and must be carried out constantly and with consistency (Kablan, 2010). The Kenya Union of Savings and Credit Cooperative reported that the consequences of the global financial crisis have led to reduced growth savings: 7.6 per cent growth in savings in 2008 compared to 31.2 per cent in 2007. It was reported that SACCOs in Kenya have reported increase in demand for loans, but have exercised caution in responding to requests (WOCCU, 2009).

The deposit and loan portfolio in SACCOs amounts to about 34 percent of national savings and about 24 percent of outstanding domestic credit (CBK, 2008). It is undeniable fact that member's loan demand is very high and incompatible compared with the availability of funds. This follows that SACCOs face a risks arising from liquidity shortage and this has been a major cause of failure of many financial cooperatives (Sambasivam& Biruk, 2013). As Jared (2013) found that rapid growth of the Sacco movement in Kenya can be pinned on the fact that they have for long periods specialized in offering cheap loans at an affordable repayment history to their clients. This gesture has attracted many clients from the formal financial institutions such as banks seeking their services (as cited in ACCOSCA, 2012).

Mwaura (2005) found that lack of credit follow up, credit analysis and hostile lending of money are some of the factors that have contributed to financial gap and poor performance. Gisemba (2010) found out that SACCOs which adopt various approaches in screening and analyzing risk before awarding credit to client minimize loan loss. This includes establishing capacity, conditions, use of collateral, borrower screening and use of risk analysis in attempt to reduce and manage credit risks. He concluded that for SACCOs to manage credit risks effectively they must minimize loan defaulters, cash loss and ensure the organization performs better increasing the return on assets.

Olomola (2002) found that repayment performance is significantly affected by borrower's characteristics, lenders characteristics and loan characteristics. Repayment problems can be in form of loan delinquency and default. Whatever the form however, the borrowers alone cannot be held responsible when problems arise, it is important to examine the extent to which both borrowers and lenders comply with the loan contract as well as the nature and duties, responsibilities and obligations of both parties as reflected in the design of the credit programme rather than heaping blames only on the borrowers. Furthermore, Roselyne (2007) conducted a study which found that factors that influenced repayment of loans in SACCOs were salary, nature of loans, and control recovery measures that the Sacco society has in place to check defaulters. The study recommends that there was need for SACCOs to implement sound management, sound control and loan recovery measures. Loan advance should be based on past repayment history of the borrower, salary levels and contributions; and there should be diverse loan products.

2.3.3 Interest Rates and Financial Performance of SACCOs

According to Crowley (2007), Interest rate is the price a borrower pays for the use of money they borrow from financial institutions or fee paid on borrowed assets. Interest rate is normally expressed as a percentage of the principal over time period usually one year. In general, interest rates rise in times of inflation, greater demand for credit, tight money supply, or due to higher reserve requirements for banks. A rise in interest rates for any reason tends to lessen business activity because credit becomes more expensive and the stock market because investors can get better returns from bank deposits or newly issued bonds than from buying shares. Piana (2002), states that the interest rate is the profit over time due to financial instruments. In a loan structure whatsoever, the interest rate is the difference (in percentage) between money paid back and money got earlier, keeping into account the amount of time that elapsed.

Hodgman (1960), states that higher interest rates raise default risk which in turn leads to lending losses. Hansa (2009) in his study found out that, young organizations struggle to reach a critical size which they can sustain themselves. He observed that outside funds can help such institutions to gain scale more quickly. He further noted that most SACCOs which are strong can easily be able to pay the interest on borrowed funds, cover loan losses, and still make a profit which can be added to retained earnings or distributed as dividends to members. The Ministry of Commerce and Tourism (GOK, 2013) notes that several financial institutions collapse due to poor rates of interests that are offered on their products. Also, Pelrine (2005) observed that when interest rates increase, borrowing becomes more expensive, dampening consumer demand for loan products.

Financial institutions decisions to lend out money are influenced by a lot of factors such as the prevailing interest rate, the volume of deposit, the level of their domestic and foreign investment, liquidity ratio, prestige and public recognition. Lending practiced in the world can be traced to the period of industrial revolution which increased the pace of commercial and production activities thereby bringing about the need for large capital outlays for projects. Interest rates play a significant role in enhancing economic activities and such monetary authorities should ensure appropriate determination of interest rate level that will break the double edge effect of interest rate on savers and local investors (IJBMR, 2013).

Generally, the cost of borrowing has gone up for all financial institutions but the advantage with SACCOs is that they are allowed by law to lend up to three times their deposit and can

borrow from other sources including commercial banks up to 25% of their capital base for onward lending. Although KUSCCO has a lending facility that SACCOs can use to bridge shortfalls, the rate at which members borrow is determined on a case basis while commercial banks loans have more than doubled in the last two years, increasing the waited cost of capital for SACCOs. Many SACCOs, especially in the public sector have revised interest rate upwards and this has affected the financial performance of SACCOs (Business Daily, 2004).

The performance of SACCOs depends on their operational efficiency, and is greatly hampered by low capacity to operate and manage their activities. It is important to remove all the bottle necks that cause inefficiency hence affecting the overall performance of SACCOs. There is no standardized performance measurement tool to evaluate the status of a SACCO (Nyanjwa, 2008).

2.3.4 Competition from Commercial Banks and Financial Performance of SACCOs

A major study on SACCOs lending to their members was commissioned by Kenya Union of Savings and Credit Cooperatives (KUSCCO) (2009). The study revealed out that Sacco Societies faced a number of threats in the lending business to their members. The cost of borrowing from financial institutions that is banks had become prohibitive, because of this high cost of borrowing, access to credit by SACCOs to the financial institution became very limited. The cost of living in the years from 1997-2002 had drastically gone up, hence Sacco members could not live comfortable without getting supportive credit from SACCOs. This created a high demand for loanable funds whose supply was constant or diminishing, since SACCOs could not easily meet that high demand for loans, member's loyalty was in jeopardy. Workers had been laid off, and this affected the savings capacity of SACCOs considerably, because of these identified threats, the study recommended that there was a serious need for the SACCOs innovative products that will help circumvent the threats. The study revealed that SACCOs are financial business organizations operating in the market place with other players in the market competing for the same clients. Therefore, Sacco's survival and existence depend on prudent, business practices but not ideologies, which promote social and communal responsibilities.

Cooperative finance in developing countries tend to have a supply of funding that is more stable and less responsive to monetary policy and market rates, they offer comparatively lower fees than other types of commercial banks, which not only helps to increase access of the poor to credit, but also reduces the cost of remittance transfers (Schenk, 2007). However,

Auka and Mwangi (2013) found out that SACCOs are facing stiff competition as their members are seeking financial services from commercial banks and other financial service providers in Kenya, as Commercial banks have relaxed their lending policy, thus attracting Sacco members to take loans with them. This has resulted to SACCOs losing members' savings. Some commercial banks are partnering with some SACCOs to act as security for Sacco members' loans threatening their survival (Mumanyi, 2014). Okundi (2011) observed that SACCOs suffer challenges as Members of the Sacco's preferred loans from the bank to the ones from the Sacco's because the amount of loan awarded is not pegged on saving as is the case in SACCOs.

The commercial banks review loans more efficiently such that they are able to top up loans faster for instance, due to use of modern technology unlike SACCOs (Rose, 2002). Emergence of technology and increased competition has enabled commercial banks and other formal institutions to offer efficient and more reliable credit facilities. Therefore, SACCOs despite their size are facing challenges in maintaining their members due to improved services of commercial banks (Wanyama, 2008). Further studies reveal that although Sacco membership and the demand for loans from SACCOs has been reported to increase, SACCOs are facing the problem of low capital base thus causing Sacco members to seek financial services from other financial service providers (Njagi, Kimani & Ngugi, 2012).

Cooperative financial institutions tend to be more stable in times of crisis, as their investment patterns use the capital of members in ways that best serve their long term needs and interests. They have a lesser tendency to invest in high risk financial markets when compared to other forms of commercial banks. It is therefore thought that their comparative stability, under both average and extraordinary conditions, can help to mitigate crisis impact for members and clientele, especially in the short-term (Hesse & Cihak, 2007). Financial institutions have been hesitant to provide credit to cooperatives due to the high risks associated with lending to them. High risks are due to insufficient equity capital; the influence problem (caused by egalitarian voting rights), which prevents majority investors from influencing investment decisions; poor financial record keeping; and high transaction costs involved in granting small loans (Ortmann & King, 2007).

Banks and micro-finance Institution continue to compete with cooperative societies for the same savings from the employees. This competition is very intense and as such, each has to

come up with superior products to attract more deposits. This has led to banks giving unsecured loans unlike in the past when collateral security was necessary. Cooperative societies on the other hand have opened up their lending by refinancing old loans and new innovative loans on household equipments and furniture. This competition has brought new innovations and created opportunities to members to enhance their well being (Mudibo, 2009). Therefore, Cooperative should improve the recovery performance, adopt new system of computerized monitoring of loans, implement proper prudential norms and organize regular workshops to sustain in the competitive banking environment (Dutta & Basak, 2008). Kabugu (2014) found out that unsecured commercial bank loans have an effect on SACCO membership. He recommended that SACCO should offer unsecured loans because most of Sacco customers were switching to commercial banks where this service was offered.

2.4 Research Gap

From the reviewed empirical literature, it is evident that factors influencing the performance of SACCOs are multifaceted and are purely dependent on the operating environment of the SACCOs. Many scholars have identified various factors which contribute to the failure of cooperatives Ndubi (2006) conducted a study on strategic responses of SACCOs to changing operating Environment in Nairobi and revealed that SACCOs have made various changes in their traditional, resource mobilization and lending methods in an attempt to cope with the changed operating environment. Muriuki (2010) carried out a study on factors affecting SACCO performance of Tharaka Nithi teachers SACCO in Meru South district and found out that governance has enormous effects on the performance of the SACCO. Otieno and Oyugi (2016) investigated factors influencing financial performance of SACCOs in Kisumu County and found out Return on Asset are highly affected by capital adequacy but inversely related to Asset Quality and Liquidity management and management efficiency also has a direct influence on the SACCOs financial performance. From the above literature, it is evident that sound financial performance is very essential for the survival of an entity in business therefore there is need for further research on other factors influencing financial performance of SACCOs such as information technology, loan repayment, interest rates charged by the SACCOs and competition from commercial banks.

2.5 Conceptual Framework

This framework illustrates the relationship between independent variables and the dependent variable. It shows the relationship between Information technology, Loan repayment, Interest

rate charged by SACCOs, Competition from commercial banks and financial performance of DTS in Kericho County.

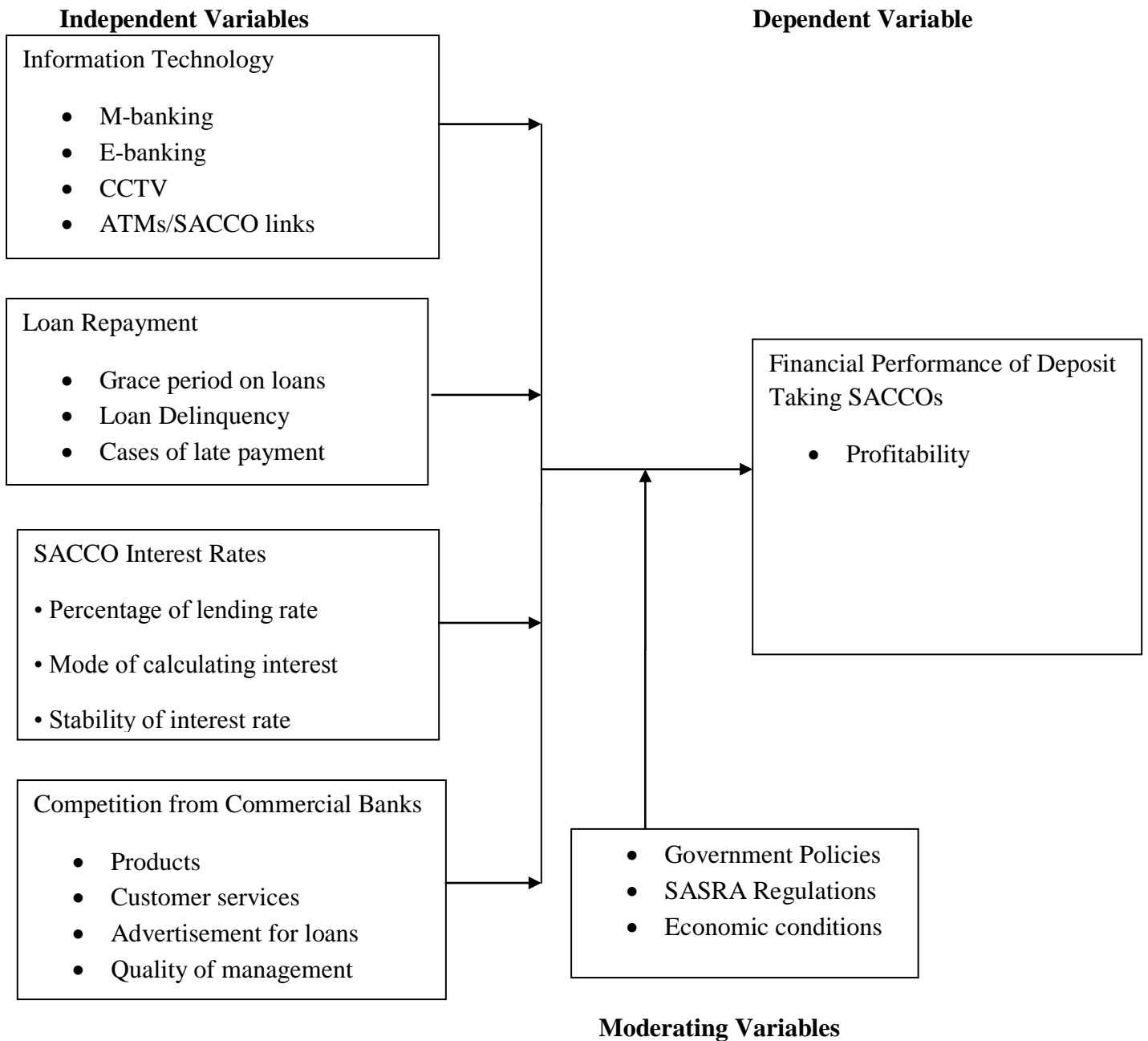


Figure 2.1 Conceptual Framework

Source: Researcher, 2016

A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Mugenda & Mugenda, 2003). Kothari (2004) defines an independent variable also known as the explanatory variable as the presumed cause of the changes of the dependent variable, while a dependent variable refers to

the variable which the researcher wishes to explain. The goal of a conceptual framework is to categorize and describe concepts relevant to the study and map relationships among them. Such a framework help researchers define the concept, map research conceptual scope, systematize relations among concepts, and identify gaps in literature (Creswell, 2003).

Operationalization of the variables:-

Information technology: Information Technology enables the management to reduce transaction cost and improve quality of services to its members thus meet their expectations and establish durable relationships with members. This was measured by examining M-banking, E-banking, CCTV and ATMs.

Loan repayment: Loan repayment covers the interest on loan and principal amount borrowed, nonpayment of loan or delay in loan repayment reduces the profitability of the Sacco because nonperforming loans cause delay in meeting financial demand of all the borrowers. This was measured in terms of grace period on loans, loan delinquency and cases of late payment.

Interest rate charged by SACCO: Interest rate charged by SACCOs is the profit over time due to financial instrument; it enables Sacco to fix appropriate interest rate as per prevailing market rate that is favorable to its members, if the rates are favorable then more members are likely to take up the loans and the more members take loans, the better the financial performance will be. This was measured in terms of percentage of lending rate, mode of calculating interest and stability of interest rate.

Competition from commercial banks: Competition from commercial bank is very intense, it enables SACCOs to adopt new innovations such as design superior products to attract more deposit and open up their lending by refinancing old loans and new innovative loans to attract new and retain the old members thereby improving its financial performance. This was measured in terms of products, customer services, advertisement for loans and quality of management.

Financial performance of Deposit Taking SACCOs: the researcher focused on profitability of SACCOs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on research design that was used; target population; sampling procedure and sample size; data collection and procedure; reliability and validity; data analysis and presentation; and ethical consideration.

3.2 Research Design

Descriptive research design was used in this study. According to Orodho (2003) descriptive survey is a method of collecting data by interviewing or administering a questionnaire to a sample of individuals. Descriptive research is a description of the state of affairs as it exists (Orodho & Kombo, 2002). The data was collected in an attempt to describe accurately as possible the current situation of the factors influencing financial performance of SACCOs in Kericho County.

3.3 Target Population

According to Mugenda and Mugenda (2003) target population should have observable characteristics which the researcher shall use to generalize the results of the study. The population of interest of this study was the employees of Deposit Taking SACCOs in Kericho County. The researcher based the study on six SACCOs since they were the only Deposit Taking SACCOs licensed by SASRA in Kericho County as per records of Ministry of Cooperative (2015).

Table 3.1: Target population

Number	Population/ Name of SACCO	Respondents
1	Ndege Chai SACCO society	55
2	Imarisha SACCO Society	66
3	Kenya highlands SACCO Society	40
4	Simba Chai SACCO Society limited	19
5	Green Hill SACCO Society limited	7
6	Patnas SACCO society limited	47
Total		234

Source: Ministry of Cooperative, Kericho County (2015)

3.4 Sampling Procedure and Sample Size

According to Mugenda and Mugenda (2003) the purpose of sampling is to secure a representative group which will enable the researcher to gain information about an entire population. Simple random sampling method was used to select respondents from each deposit taking Sacco as per the proportion of each which is computed using total population as the denominator. The total population is 234 as given in the sampling frame. The sample size was computed using Nassiuma's (2000) formula as illustrated below:

$$n = \frac{N * [C]^2}{[C]^2 + [N - 1][e]^2}$$

Where:

n = sample size;

N = target population size;

C = coefficient of variation (0.21)

e = margin of error (0.02)

Calculating the sample size,

$$n = \frac{234 * [0.21]^2}{[0.21]^2 + [234 - 1][0.02]^2} = \frac{10.3194}{0.0441 + 0.0932} = 75$$

A sample size of 75 respondents results from the use of the above formula.

Stratified Proportional allocation was used to calculate various strata. The formula used is as follows:

$$n_x = \left[\frac{n}{N} \right] N_x$$

Where;

n_x = Population in a stratum

N = Total number of Sacco's

N_x = Total number of the sample size of strata x

Table 3.2: Stratified proportional sample size

Number	Population/ Name of SACCOs	Respondent/ Employees	Sample Size $nx = (n/N)Nx$
1	Ndege Chai Sacco society	55	18
2	Imarisha Sacco Society	66	21
3	Kenya Highlands Sacco Society	40	13
4	Simba Chai Sacco Society limited	19	6
5	Green Hill Sacco Society limited	7	2
6	Patnas Sacco Society limited	47	15
Total		234	75

Source: Ministry of Cooperative, Kericho County (2015)

3.5 Data Collection and Procedure

Primary source of data was used in this study through administering questionnaires to the respondents. According to Sproul (1998), a self-administered questionnaire is the only way to elicit self-report on people's opinion, attitudes, beliefs and values. The questionnaires were hand delivered on the basis of pick later for respondents to fill and collected by the researcher.

3.6 Reliability and Validity

The questionnaires were pre-tested in Cosmopolitan Deposit Taking Sacco in Nakuru County through a pilot study to prove whether they were valid or not. To ensure that the instrument was valid and reliable, the researcher ensured that the questionnaire was clear and error free. Reliability of the instrument was calculated using Cronbach's Coefficient Alpha for either even and uneven items based on the order of number arrangement of the questionnaire items. According to Fraenkel and Wallen (2000), reliability should be at least 0.70 or higher thus if Coefficient Alpha of 0.7 is obtained, then the instrument is accepted.

$$\alpha = \frac{N \cdot \bar{C}}{\bar{V} + [N - 1] \bar{C}}$$

Here N is equal to the number of items, c-bar is the average inter-item covariance among the items and v-bar equals the average variance. The instruments gave a Cronbach's Coefficient Alpha value of 0.7472 implying that it was above the recommended value and therefore suitable for administration.

3.7 Data Analysis and Presentation

Before the actual data analysis, data obtained through questionnaire will be validated, edited and then coded (Mugenda & Mugenda, 2003). The returned instruments were scrutinized to determine correctness and accuracy through a sequence of operations which include editing, coding and classification. Data collected from this study was analyzed using descriptive and inferential statistics with the aid of Statistical Package for Social Sciences (SPSS). Correlation analyses were used to measure the relationship between variables. A multiple regression model was used to test the significance of the influence of the independent variables on the dependent variable. The multiple regression model is shown below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i$$

Where:

Y = Financial performance

β_0 = the Y intercept

X_1 = Information Technology

X_2 = Loan Repayment

X_3 = Interest rate charged by SACCOs

X_4 = Competition from commercial banks

ε_i = the error term (normally distributed)

Data analyzed was presented using tables and summarized in percentages and proportions.

3.8 Ethical Consideration

The researcher sought consent from the Ministry of Cooperative in the area and the overall management of the Deposit Taking SACCOs to carry out the study. The management and the respondents were given the understanding that the findings were to be used to improve or strengthen the existing financial performance of SACCOs and add to the body of knowledge for further research by academicians. The identity of respondents providing information was made private and confidential to prevent any victimization.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATIONS AND DISCUSSIONS

4.1 Introduction

This chapter is set to give a detailed analysis of data collected. Data was collected using both open ended and closed ended questionnaires. Collected data was analyzed in the order of research questions to achieve the objective of the study.

4.2 Response Rate

The questionnaires were administered to employees of deposit taking SACCOs in Kericho County. Out of the 75 questionnaires distributed, 50 respondents completely filled in and returned the questionnaires, representing 66.7% response rate. According to Mugenda & Mugenda (2003) generalization of response rate of 50% is adequate for analysis and reporting, 60% is good and a response rate of 70% and above is excellent, therefore 66.7% response rate is a reliable response rate for data analysis. Unavailability of some of the prospective respondents and reluctant of some respondents to fill the questionnaires was the major hindrance to the attainment of 100% response rate.

4.3 Demographic characteristics

Table 4.1(a): Gender characteristics by Education level of the respondents

		Certificate	Diploma	undergraduate	Masters	Total
Female	Frequency	1	4	9	2	16
	Percent (%)	2	8	18	4	32
Male	Frequency	1	5	23	5	34
	Percent (%)	2	10	46	10	68
Total	Frequency	2	9	32	7	50
	Percent (%)	4	18	64	14	100

Chi-square 3.613

d.f 3

P-value 0.306

According to the findings in Table 4.1 (a), most of the respondents were either degree or diploma holders. 18% were females with an under graduate degree and 46% represent the male with degree. These findings imply that majority of the respondents were educated and

hence were better positioned for better performance prospects in the future. However, the findings were not significant to the financial performance of the SACCOs as indicated by p-value of 0.306.

Table 4.1 (b): Gender characteristics by work experience

	1-5years	6-10 years	11years and above	Total
Frequency	13	1	2	16
Female Percent (%)	30	2	0	32
Male Frequency	26	4	4	34
Percent (%)	52	8	8	68
Total Frequency	41	5	6	50
Percent(%)	82	10	8	100%
Chi-square	7.245			
d.f	2			
P-value	0.474			

According to the findings in Table 4.1 (b), 30% of the females and 52% of the males have work experience of between 1-5 years in the Sacco. The findings imply that the respondents have been in their respective SACCOs for duration periods of more than one year hence have knowledge about the issues the researcher was interested in. This was also important information in guaranteeing the reliability of data obtained as the respondents were representative of the population.

Table 4.1 (c): The Number of branches of each Sacco

SACCOs	Number of Branches
Patnas SACCO	4
Kenya Highlands SACCO	4
Simba Chai SACCO	2
Imarisha SACCO	8
Green Hill SACCO	1
Ndege Chai SACCO	8

This is an indication of the SACCOs adoption of expansion and location strategies that centers on decentralization.

4.4 Information Technology and Financial Performance of SACCOs

The first objective was to determine the influence of information technology on financial performance in the Sacco. Information technology was defined by E-banking, phone banking such as M-pesa, ATM and CCTV. The status of information technology of Sacco employees was rated on a 5 point Likert scale.

Table 4.2 (a): Form of Information technology utilized

		Frequency	Percent	Cumulative Percent
Valid	E-banking	13	26.0	26.0
	phone-banking	7	14.0	40.0
	ATM/SACCO-link	22	44.0	84.0
	CCTV	8	16.0	100.0
Total		50	100.0	

The results in Table 4.2(a) shows that SACCOs have adopted the four forms of IT the researcher was studying, 26% have adopted E-Banking system in their organizations, 14% have adopted phone banking, 33% use ATM/SACCO link and 16% have CCTV cameras in place.

4.4.2 Reasons for adopting IT

In respect to what prompted the Sacco to adopt IT, the management felt that they had not been prompted by any external forces to adopt and utilize ICTs, but it had been motivated by the urge to improve service delivery to its customers, improve efficiency and accuracy. All the same there was a general feeling that IT was recognized as necessary factor in ensuring that the SACCO stayed ahead of the other SACCOs.

4.4.3 Interconnected network throughout the branches

All the branches of each Sacco have an interconnected network therefore the parent company can access information from branches at ease.

Table 4.2 (b): Information Technology and financial performance

Statement	SD	D	N	A	SA	χ^2	P Value
	freq (%)	freq (%)	Freq (%)	freq (%)	freq (%)		
IT usage has increased the number of customers in the Sacco	1(2)	1(2)	3(6)	18(36)	27(54)	60.4	0.0001
Reports produced by our information system are accurate and reliable	1(2)	1(2)	3(6)	27(54)	18(36)	52.3	0.0001
Computerization has improved loans disbursement and loan recovery	1(2)	0	1(2)	17(34)	31(62)	52.2	0.0001
Errors and differences in records are easily corrected and reconciliations done on time	1(2)	1(2)	1(2)	29(58)	18(36)	51.9	0.0001
Members' issues and statement requests are responded to promptly.	1(2)	0	1(2)	28(56)	20(40)	52.5	0.0001
IT has increased convenience in accessing Sacco services	1(2)	1(2)	1(2)	21(42)	26(52)	56.7	0.0001
IT save on Sacco running costs	1(2)	1(2)	2(4)	25(50)	21(42)	52.3	0.0001
IT has improved profits for the Sacco	1(2)	0	5(10)	25(50)	19(38)	62.2	0.0001
IT has improved service delivery within the Sacco	1(2)	0	0	22(44)	27(54)	52.2	0.0001

The findings in Table 4.2(b) shows that ($\chi^2 = 60.4, P \leq 0.001$) IT usage has increased the number of customers in the Sacco, ($\chi^2 = 52.3, P \leq 0.001$) reports produced by information system are accurate and reliable. Also ($\chi^2 = 52.2, P \leq 0.001$) computerization has improved loans disbursement and loan recovery, ($\chi^2 = 51.9, P \leq 0.001$) errors and differences in records are easily corrected and reconciliations done on time, ($\chi^2 = 52.5, P \leq 0.001$) members' issues and statement requests are responded to promptly, also ($\chi^2 = 56.7, P \leq 0.001$) IT has increased convenience in accessing Sacco services. These findings conform with that of Alvarez (2007) who found out that, SACCOs need technology to innovate new products and services as well as operational processes for convenience and efficiency, operational efficiency saves on resources; all these components were found to contribute to the financial performance of SACCOs

Moreover, ($\chi^2 = 52.3, P \leq 0.001$) IT saves on SACCO running costs, ($\chi^2 = 62.2, P \leq 0.001$) IT has improved profits for the Sacco, and ($\chi^2 = 52.3, P \leq 0.001$) IT has improved service delivery within the Sacco. These findings conform with Brown (2005) who found out that SACCOs need to modernize their management system by adopting information technology in their management to reduce costs and improve the quality of services to their management.

The findings reveal that Information technology influence financial performance of SACCOs. The findings agree with Ministry of Co-operative Development and Marketing (2008) who asserted that ICT is increasingly becoming an essential tool for efficient operations of investments and cooperatives should be encouraged to use this technology. IT broadly can allow for a reduction in transactions costs, improved access to timely and usable knowledge, improved communications with markets and within supply chain, acquisition of appropriate skills for enhancement of productivity and improved information about new opportunities (Gunga, 2008). All the above response had chi square values that were significant.

4.5 Loan Repayment and Financial Performance of SACCOs

The second objective of this study was to determine the relationship between loan repayment and financial performance. This was supposed to enable the researcher to determine the SACCO cash flow and profitability.

4.5.1 Systems used in loan repayment

The researcher wanted to find out if and in what ways does the system used to repay back the loan affects the cash flows and financial performance of the SACCO.

Table 4.3 (a): Systems used in loan repayment

System	Frequency	Percent
Check off	19	38%
Monthly Cash Installment	11	22%
Both	20	40%
Total	50	100%

From Table 4.3(a)40% use both check off and monthly payment to repay their loans,38%use check off methods as their repayment method and 22 use monthly cash installment method. This implies that SACCOs have balanced number of members who are employed by various ministries and self-employed with no regular salaries who pay monthly cash installments.

4.5.2 Challenges faced

The researcher sought to establish if the SACCO members faced any challenges in the system they used to repay their loans and how those challenges affected the financial performance of SACCOs. It is unfortunate that the highest percentage, 60% of the respondents face problems while using the repayment system. Only 40% of the total sample does not face problems while using the system. Meaning there might be fault in the system or not familiarized with the system.

4.5.3 Period given to repay loans.

This is the maximum period to borrowers to repay their loans. The researcher wanted to find out if the period given to repay the loans has any financial influence on SACCO profitability and cash flow.

Table 4.3 (b): Maximum repayment period

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	six months	4	8.0	8.2	8.2
	one year	8	16.0	16.3	24.5
	two years	2	4.0	4.1	28.6
	three years	2	4.0	4.0	30.6
	any other	34	68.0	69.4	100.0

Table 4.3(b) the maximum period for loan repayment was 8% six months, 16% one year, 4% two years, 4% three years and 68% responded that the maximum period was 60 months and 72 months to repay loan. This implies that borrowers preferred longer duration so that they may have enough time to invest the amount borrowed and pay back out of profits.

4.5.4 Form of security to loans

This is the form of security administered by the Sacco to recover loans. Majority 78% use guarantors as form of security to recover loans, while 18% insure loans and 4% use collaterals as form of security.

Table 4.3 (c): Loan repayment and financial performance

Statement	SD	D	N	A	SA	χ^2	P Value
	freq (%)	freq (%)	freq (%)	freq (%)	freq (%)		
Loan borrowers honor loan repayment on due date	2(4)	35(70)	8(16)	3(6)	2(4)	34.5	0.0001
Loan delinquency has been minimized in the last 5 years.	3(6)	27(54)	11(22)	2(4)	7(14)	46.4	0.0001
Members of the Sacco are eager to repay their loans promptly	3(6)	25(50)	14(28)	2(4)	6(12)	32.7	0.0001
Sacco has provision for irrecoverable loans	3(6)	3(6)	5(10)	21(42)	18(36)	60.5	0.0001
Sacco awards loan depending on the borrowers' ability to pay	3(6)	0	3(6)	17(34)	27(54)	22.7	0.0001
Deposit savings act as security in future when taking loans from the Sacco	3(6)	1(2)	3(6)	22(44)	21(42)	40.4	0.0001
Loans are closely monitored to ensure timely repayment	2(4)	2(4)	4(8)	22(44)	20(40)	24.4	0.0001
Clients with difficulty in loan repayment given an extension period on request	7(14)	24(48)	7(14)	11(22)	1(2)	23.3	0.0001

Key: SA=Strongly Agree; A=Agree; N=Neutral; D=Disagree and SD=Strongly Disagree

The results in Table 4.3(c) indicate that ($x^2 = 34.5, P \leq 0.0001$) loan borrowers honor loan repayment on due date, ($x^2 = 46.4, P \leq 0.0001$) loan delinquency has been minimized in the last 5 years, ($x^2 = 32.7, P \leq 0.0001$) members of the Sacco are eager to repay their loans promptly. This agrees with Ledgerwood (2000) who said that failure to manage loan repayment results in losses and high delinquency management costs.

Also, ($x^2 = 60.5, P \leq 0.0001$) SACCO has provision for irrecoverable loans; this conforms with Kablan (2010) who found out that SACCO's sustainability and levels of development basically depend on high recovery of their loans, loan policies therefore have unquestionable importance and must be carried out constantly and with consistency.

Moreover, ($x^2 = 22.7, P \leq 0.0001$) SACCO awards loan depending on borrower's ability to pay, ($x^2 = 40.4, P \leq 0.0001$) deposit savings act as security in future when taking loans from the SACCO, ($x^2 = 24.4, P \leq 0.0001$) loans are closely monitored to ensure timely repayment, and ($x^2 = 23.3, P \leq 0.0001$) clients with difficulty in loan repayment are given extension period on request. This findings support that of Beck and Kunt (2006) states that loan evaluation system and the ability of members to repay within a specified timeframe has not been sufficiently considered in the loan application process since cooperatives rely on the common bonds shared by members which foster a trust between members. All the above response had chi square values that were significant.

4.6 Interest Rate Charged and Financial Performance of SACCOs

Interest rate charged by SACCOs was identified as one of the factors influencing financial performance. Interest rates are affected by the level of lending rate of the Central Bank and the levels of inflation in the country. The researcher wanted to find out the views of respondents on the current interest charged. This is further explained in the following subthemes.

4.6.1 Level of inflation in the country.

Banks' lending rates are affected by inflation in the country. When there is high inflation the cost of living goes up. The researcher sought to establish views of respondents on inflation and if this affects the financial performance of SACCOs.

Table 4.4 (a): Level of inflation in the country for the past two years

		Frequency	Percent
Valid	very high	7	14.0
	High	20	40.0
	Moderate	20	40.0
	Low	3	6.0
	Total	50	100.0

Table 4.4(a) shows that out of the 50 respondents, 40% rated the level of inflation in the country for the past 2 years as being high, 14% said very while the smallest group 6% said it was low. Level of inflation influence interest rate charged. Inflation is a factor beyond the control of the Sacco therefore the Sacco should look for other ways of controlling its lending rate like trying to minimize other operations cost.

4.6.2 Interest rates charged compared with other financial institutions.

The researcher sought to find out the views of respondents concerning the current interest rate charged by the Sacco and if it can influence SACCO membership and its financial performance.

Table 4.4 (b): Interest rate charged

Rate charged	frequency	percent (%)
High	1	2
Competitive	34	68
Low	15	30
Total	50	100

Table 4.4(c) 68% consider the interest charged being competitive in comparison to other financial institutions. Only 30% of the respondents are contrary to the opinion. This is a positive result that shows SACCOs are offering better terms than other financial institution.

Table 4.4 (c): Interest rate charged by SACCO on financial performance

Statement	S D	D	N	A	S A	χ^2	P Value
	freq (%)	freq (%)	freq (%)	freq (%)	freq (%)		
Management follows strictly laws and regulation when handling issues related to interests.	1(2)	3(6)	7(14)	23(46)	16(32)	34.9	0.0001
Interest rates on loans are reviewed regularly to match competition and retain clients.	3(6)	4(8)	7(14)	26(52)	10(20)	48.9	0.0001
Prevailing interest of other financial institutions and central bank are considered when drafting lending interest rates.	1(2)	6(12)	7(14)	28(56)	8(16)	27.4	0.0001
Sacco has lost clients to other lending institution.	15(30)	20(40)	7(14)	6(12)	2(4)	19.4	0.0001

The results in Table 4.4(d) indicate that ($\chi^2 = 34.9, P \leq 0.0001$) management follows strictly laws and regulation when handling issues related to interest, ($\chi^2 = 48.9, P \leq 0.0001$) interest rates on loans are reviewed regularly to match competition and retain clients, ($\chi^2 = 27.4, P \leq 0.0001$) prevailing interest of other financial institutions and central bank are considered when drafting lending interest rates, and ($\chi^2 = 19.4, P \leq 0.0001$) SACCO has lost clients to other lending institutions due to interest rates charged. The findings agree with that of Ministry of Commerce and Tourism (GOK, 2013) who found out that several financial institutions collapse due to poor rates of interests that are offered on their products. Also, Pelrine (2005) found that when interest rates increase, borrowing

becomes more expensive, dampening consumer demand for loan products. All the above response had chi square values that were significant.

4.7 Competition from Commercial Banks and Financial Performance

Table 4.5: Competition from commercial banks and financial performance

Statement	S	D	N	A	SA	χ^2	P Value
	freq (%)	freq (%)	freq (%)	freq (%)	freq (%)		
Commercial banks are great threat to survival of our SACCO.	11(22)	19(38)	6(12)	11(22)	3(6)	34.3	0.0001
Savings products of commercial banks are great competitor to SACCO products.	5(10)	18(36)	8(16)	15(30)	4(8)	30.1	0.0001
Loans from commercial banks are favorable than loans from SACCO.	19(38)	20(40)	5(10)	3(6)	3(6)	43.3	0.0001
Commercial banks have better customer service than SACCO	8(16)	25(50)	7(14)	8(16)	2(4)	48.2	0.0001
SACCOs are more competitive than commercial banks in service delivery.	2(4)	3(6)	10(20)	25(50)	10(20)	47.1	0.0001
Banks are managed by well educated and trained banks than those of SACCOs	16(32)	19(38)	5(10)	8(16)	2(4)	28.1	0.0001
Commercial banks poach employees from SACCO	8(16)	17(34)	16(32)	7(14)	2(4)	29.2	0.0001

The results in Table 4.5 ($\chi^2 = 34.3, P \leq 0.0001$) commercial banks are a great threat to survival of our SACCO, ($\chi^2 = 30.1, P \leq 0.0001$) savings products of commercial banks are great competitor to SACCO products, ($\chi^2 = 43.3, P \leq 0.0001$) and loans from commercial banks are more favorable than loans from SACCO. Also, ($\chi^2 = 48.2, P \leq 0.0001$) commercial banks have better customer service than SACCO. These findings disagree with findings from Auka and Mwangi (2013) who found out that SACCOs were facing stiff competition as their members were seeking financial services from commercial banks and other financial service providers in Kenya, as commercial banks had relaxed their lending policy thus attracting SACCO members to take loans with them.

Moreover, ($\chi^2 = 47.1, P \leq 0.0001$) SACCOs are more competitive than commercial banks in service delivery; ($\chi^2 = 28.1, P \leq 0.0001$) banks are managed by well educated and trained than those of SACCOs and ($\chi^2 = 29.2, P \leq 0.0001$) commercial banks poach SACCO employees. The findings also concur with those of Hesse and Cihak (2007) who argued that cooperative societies in developed countries tend to be more stable than commercial banks, especially during financial crisis, as their investment patterns tend to be less speculative and returns are therefore less volatile. Also these findings disagree with that of Wanyama (2008) who found out that SACCOs despite their increase in size are faced challenges in maintaining their members due to improved services of commercial banks. All the above response had chi square values that were significant.

4.8 Financial Performance of SACCOs

Table 4.6: Financial Performance of SACCOs

Trend		Greatly Improved	Improved	Constant	Decreasing	Greatly decreased	χ^2	P Value
No. of members		36(72)	14(28)	0	0	0	68.3	0.0001
Gross Income		13(26)	34(68)	3(6)	0	0	65.0	0.0001
Share Capital		20(40)	27(54)	2(4)	1(2)	0	58.5	0.0001
Deposits		21(42)	29(58)	0	0	0	60.0	0.0001
Loan issued		31(62)	19(38)	0	0	0	62.7	0.0001
Interest on deposits		8(16)	25(50)	13(6)	1(2)	2(4)	54.3	0.0001
Rate of dividends		8(16)	31(62)	4(8)	6(12)	1(2)	60.0	0.0001
FOSA deposits		18(36)	27(54)	2(4)	1(2)	2(4)	56.1	0.0001

The study sought to find out the financial performance of SACCO in the past five years. A five likert scale was used: greatly improved, improved, constant, decreasing and greatly decreased. According to the findings in table 4.6 the trend of number of members, gross income and loans issued have greatly improved in the past five years as shown by their chi-square of 68.3; 65.0 and 62.7 respectively. Moreover, deposits, rate of dividends, share capital, FOSA deposits and interest on deposits have improved as shown by chi-square test of 60.0; 60.0; 58.5; 56.1 and 54.3 respectively for the past five years. The chi-square test was significant since the P-value of the whole test was 0.0001 therefore, less than 0.05 significant level.

These findings conform to the findings of Muriuki (2010) who researched on SACCOs and found out that SACCOs have to be efficient for it to achieve sound financial performance standards; efficiency refers to an organization's ability to utilize the limited resources at hand to generate the most revenue by minimizing wastages thus making savings. Also, Wanyama (2008) found out that SACCOs are expected to give better and cheaper services to its members as compared to commercial banks because SACCOs understand the needs of the members as they are the owners of the Sacco therefore improve their financial performance which is measured through its ability to meet the financial demands of its members taking consideration of economic status of the members.

4.9 Inferential Statistics

This section presents the results of the correlation and regression analysis done in the study to evaluate the nature of the relationship between the dependent and independent variables.

4.9.1 Correlation Analysis

Correlation analysis was used to determine both the significance and degree of association of the variables. The correlation technique is used to analyze the degree of relationship between two variables. It varies between -1 and + 1 with both ends of the continuum indicating perfect negative and perfect positive relationship between any two variables respectively. The results of the correlation analysis are summarized in Table 4.7 below:

Table 4.7 Summary of Correlations

		Information technology	loan repayment	interest rates	competition	Financial Performance
Information technology	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	50				
loan repayment	Pearson Correlation	.378	1			
	Sig. (2-tailed)	.000				
	N	50	50			
interest rates	Pearson Correlation	.401	.214	1		
	Sig. (2-tailed)	.000	.000			
	N	50	50	50		
Competition	Pearson Correlation	.681	.142	.589	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	50	50	50	50	
Financial Performance	Pearson Correlation	.428**	.285**	.218**	.286**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	50	50	50	50	50

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

A correlation analysis in Table 4.7 to determine whether information technology had an influence on financial performance of SACCOs in Kericho County shows a relationship exists ($r = 0.428$, $\alpha = 0.05$). This suggests that since information technology were important in improving financial performance of SACCOs; they still needed to be enhanced through adopting latest technology and computerizing the whole system.

The correlation analysis to determine whether loan repayment had a significant influence on financial performance of SACCOs in Kericho County shows a relationship exists ($r = 0.285$, $\alpha = 0.05$). This implies that a lot needs to be done on loan repayment strategies to recover loans and minimize loan delinquency as most SACCOs do not emphasize on financial performance and loan repayment.

The study also sought to determine whether there existed a significant relationship between interest rate charged by Sacco and financial performance in Kericho County. The correlation analysis shows that a relationship exists ($r = 0.218$, $\alpha = 0.05$). The relationship is low suggesting that it is no longer a factor of concern since SACCOs charge interest rate relatively lower than commercial banks and the inflation rate is moderate.

Finally, the correlation analysis to determine whether there was a significant association between competition from commercial banks and financial performance of SACCOs in Kericho County shows that a relationship exists ($r = 0.286$, $\alpha = 0.05$). These findings imply that more emphasis needed to be put on various products and service offered to clients in order to improve on their financial performances. It can therefore be concluded that all the variables were significant to the study problem although the degrees of influence varied.

4.9.2 Regression Analysis

Table 4.8: Multiple Regression Analysis Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.625 ^a	0.391	0.332	1.5908

a. Predictors: (Constant), financial performance

b. Predictors: (Constant), Information technology, loan repayment, interest rates, competition

The Multiple regression analysis was used to determine the relationship between the dependent variable and all the independent variables when pooled together. This analysis was used to answer the questions; how does the independent variable influence the dependent variable jointly; to what extent does each independent variable affect the dependent variable in such a collective set-up, and; which are the more significant factors. The results are given in the model summary in Table 4.8 above.

Multiple regression analysis was used to determine the significance of the relationship between the dependent variable and all the independent variables pooled together. The coefficient of determination $r^2 = 0.391$ hence showing that 39.1% of the total variations in financial performance can be explained by Information Technology, Loan repayment, interest

rate charged by Sacco and Competition from commercial banks. This means that other factors not in the study accounted for 60.9%.

Table 4.9: Summary of ANOVA – Based on Financial Performance of DTS

Model	Source of difference	Sum of Squares	Df	Mean Square	F	Sig.
1	Between groups	229.187	4	57.297	10.918	.000 ^a
	Within groups	514.313	98	5.248		
	Total	743.500	102			

The Anova results shown in Table 4.9 indicate that there is a significant difference between means of factors influencing financial performance of the SACCOs in Kericho County. ($F_o = 10.918 > F_c = 2.95$; $\alpha < 0.05$; $df = 4, 98$; $p = 0.000$). The ANOVA results shown in table 4.9 indicated an overall significance of 0.000.

Table 4.10: Multiple Linear Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.787	0.079		3.506	.001		
	Information technology	0.564	0.016	.620	4.883	.000	.857	1.842
	loan repayment	0.218	0.016	.168	1.352	.084	.663	1.417
	interest rates	0.079	0.015	.054	.428	.003	.789	1.574
	competition	0.019	0.074	0.013	.264	.090	.566	1.428

a. Dependent Variable: Financial performance

The multiple regression results in Table 4.10 indicate that Information Technology ($\beta = 0.564$), loan repayment ($\beta = 0.218$), interest rate charged by Sacco ($\beta = 0.079$) and competition from commercial banks ($\beta = 0.019$) are all significant. Therefore the most important factors that influence financial performance of SACCOs in the study area was

Information technology followed by loan repayment, then interest rate charged by SACCO and competition from commercial banks as shown by beta values of these variables: 0.564, 0.218, 0.079 and 0.019 respectively. Therefore these independent variables are seen to influence financial performance of SACCOs in Kericho County. From the table the coefficient of the model was significant at 5% level of significance. Therefore, factors influencing financial performance could be predicted using the following equation:

$$Y=2.787+.564X_1+ .218X_2+ .079X_3 + .019X_4 + \varepsilon$$

Where;

Y is Financial Performance

X₁ is the Information Technology

X₂ is the Loan Repayment

X₃ is the Interest rate charged by SACCO

X₄ is the Competition from Commercial Banks

4.9.3 Hypotheses Testing

To test multiple regression models, it is necessary to assess whether the collected data violated some key assumptions of regression models because any assumption violations can result in distorted and biased research results (Hair & Tatham, 2010). Mohammed and Mohammed (2012) refer to multicollinearity problem as actual disparity percentage among variables. Multicollinearity can be controlled by two ways: tolerance values and values of Variance Inflation Factor (VIF). High degrees of multicollinearity can result in both regression coefficients being inaccurately estimated and difficulties in separating the influence of the individual variables on the dependent variables (Hair & Tatham, 2010).

According to Jingyu li (2003) researchers have used VIF is 10.0 as critical value rule of thumb to determine whether too much correlation existed. The VIF values in the table 4.10(b) below were less than 10.0 so there was no multicollinearity problem. Also if tolerance value is greater than 0.1 but less than 1.0 then there was no multicollinearity problem (Hair& Tatham, 2010). Tolerance value in the table 4.10(b) is more than 0.1 therefore there was no multicollinearity problem.

Table 4.10(b): Multicollinearity statistics

Statistics	Information technology	Loan repayment	Interest charged	rate	Competition
Tolerance	0.857	0.663	0.789		0.566
VIF	1.842	1.417	1.574		1.428

Hypothesis Testing**Ho₁: There is no significant relationship between Information Technology on financial performance of Deposit Taking SACCOs in Kericho County**

Regression results revealed that information technology significantly influenced financial performance ($\beta = 0.564$; p value = 0.000 and t value = 4.883) and thus the null hypothesis was rejected. The implication of this is that information technology is a key consideration as far as financial performance of SACCO is concerned. This means that DTS should consider full adoption of various forms of information such as E-banking, phone banking, ATM and CCTV, computerization of its records and invest in emerging information system trend. These findings concur with those of Republic of Kenya (2008) who found out that information technology had become increasingly important tool for efficient operations of investment therefore cooperatives should embrace the new technology.

Ho₂: There is no significant relationship between loan repayment and financial performance of Deposit Taking SACCOs in Kericho County

Regression results revealed that loan repayment significantly influenced financial performance ($\beta = 0.218$; p value = 0.084 and t value = 1.352) and thus the null hypothesis was rejected. The implication of this is that loan repayment is a key consideration as far as financial performance of SACCO is concerned. This means that DTS should consider minimizing loan delinquency, cases of late repayment, provisions for irrecoverable loans and other forms of security on loans. These findings is in consistent with those of Gisemba (2010) who found out that SACCOs which adopt various approaches in screening and analyzing risk before awarding credit to client minimize loan loss. This includes establishing capacity, conditions, use of collateral, borrower screening and use of risk analysis in attempt to reduce and manage credit risks. He concluded that for SACCOs to manage credit risks effectively they must minimize loan defaulters, cash loss and ensure the organization performs better increasing the return on assets.

Ho₃: There is no significant relationship between interest rate charged by SACCOs and financial performance of Deposit Taking SACCOs in Kericho County

Regression results revealed that interest rate charged by SACCO significantly influenced financial performance ($\beta = 0.079$; p value = 0.003 and t value = 0.428) and thus the null hypothesis was rejected. The implication of this is that interest rate charged by SACCO is a key consideration as far as financial performance of SACCO is concerned. This means that DTS should consider reviewing regularly their interest rate, consider prevailing interest rate of other financial institutions and be up to date on laws and regulation governing interest rate. These findings concur with those of Hansa (2009) who found out that; young organizations struggle to reach a critical size which they can sustain themselves. He observed that outside funds can help such institutions to gain scale more quickly. He further noted that most SACCOs which are strong can easily be able to pay the interest on borrowed funds, cover loan losses, and still make a profit which can be added to retained earnings or distributed as dividends to members.

Ho₄: There is no significant relationship between competition from commercial banks and financial performance of Deposit Taking SACCOs in Kericho County

Regression results revealed that competition from commercial banks significantly influenced financial performance ($\beta = 0.019$; p value = 0.090 and t value = 0.264) and thus the null hypothesis was rejected. The implication of this is that competition from commercial banks is a key consideration as far as financial performance of SACCO is concerned. This means that DTS should consider advertisement for loans, quality of management products and services offered. These findings agree with those of Dutta and Basak, (2008) who found out that SACCOs should improve their recovery performance, adopt new system of computerized monitoring of loans, implement proper prudential norms and organize regular workshops to sustain in the competitive banking environment

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a detailed summary of the major findings of the study; it then draws conclusions and discusses implications emanating from these findings. Finally, it makes some recommendations and suggestions on areas of further study. The general objective of this study was to examine factors influencing financial performance in Kericho County. In particular, the study sought to establish the relationship between information technology, loan repayment, interest rate charged by Sacco and competition from commercial banks on financial performance of deposit taking SACCOs.

5.2 Summary of Major Findings

The findings reveal that all the variables combined can explain approximately 33.2% of the variations in financial performance of the deposit taking SACCOs in Kericho County while 66.8% may be attributed to other factors not explained by the model or the variables.

5.2.1 Influence of Information Technology on Financial Performance of SACCOs in Kericho County

The findings on the relationship between information technology and the financial performance of SACCOs reveal that information technology was a significant factor in financial performance of the SACCOs. Multiple regression results indicated that it was the most important factor in the model and therefore, needed to be given priority when addressing financial performance of the SACCOs in the area. It was established that SACCOs have adopted various forms of IT such as 38% have CCTV cameras installed, 26% have adopted E-banking, 22% use ATM/SACCO link and few (14%) utilize phone banking like M-pesa in their SACCOs in order to provide fast and cheap services and stay ahead of competition. All SACCOs have interconnected network throughout their branches therefore can monitor and communicate with their branches at ease. It was observed that mobile money banking technology has an influence financial performance of Sacco despite low level of its adoption.

The findings revealed that IT has improved profits for the SACCO, IT usage has increased the number of customers in the SACCO since it has increased convenience in accessing SACCO services, members' issues and statement request are responded to promptly also reports produces by information system were found to be accurate and reliable. Furthermore, IT saved on SACCO running costs, computerization has improved loan disbursement and loan recovery; and errors and differences in records are easily corrected and reconciliations done on time. This meant that SACCOs need to be up-to date with its information technology system and computerization of its records.

5.2.2 Influence of Loan Repayment on Financial Performance of SACCOs in Kericho County

The findings on the relationship between loan repayment and the financial performance of SACCOs reveal that loan repayment was a significant factor in financial performance of the SACCOs. Regression results showed that it had a linear relationship and that it was the second most important factor in the multiple regression model, hence needed to be taken into account in order to achieve better financial performance It was established that most Sacco use both check off system and monthly cash installment to repay their loan, however there are challenges faced by Sacco in using this system. 78% relay on guarantors as form of security administered to recover loans, other forms are to insure loan but is limited to those loan which are volatile and 4% use collaterals.

The findings showed that SACCO need provision for irrecoverable loans, loan delinquency has not been fully minimized in the last five years, SACCOs rewards loan depending on borrowers' ability to pay. Also, deposit savings act as security in future when taking loans from SACCO; loans are closely monitored to ensure timely repayment and cases of late repayment should be considered by SACCO.

5.2.3 Influence of Interest Rate charged by SACCO on Financial Performance of SACCOs in Kericho County

The findings on the relationship between interest rate charged by SACCO and the financial performance of SACCOs reveal that interest rate charged by SACCO was a significant factor in financial performance of the SACCOs. Regression results showed that it had a linear relationship and that it was the third most important factor in the multiple regression model. From the findings 40% rated the level of inflation in the country for the past 2 years as being

high, 14% said very high while the smallest group 6% said it was low. Level of inflation influence interest rate charged. Inflation is a factor beyond the control of the Sacco therefore the Sacco should look for other ways of controlling its lending rate like trying to minimize other operations cost. 68% of the respondents state that the interest rate charged by the Sacco compared to other financial institutions were competitive since the interest rate keep changing and they charge at lower rate of between 12% and 20% straight-line basis which is low. 60% of the respondents said that interest rate charged by Sacco affect financial performance while 40% disagreed.

The results also indicated that interest rates on loans are reviewed regularly to match competition and retain clients; and management follows strictly laws and regulation when handling issues related to interest; while prevailing interest of other financial institutions and central bank were considered when drafting lending interest rate; and SACCO has lost clients to other lending institutions due to interest rates charged was found to be low.

5.2.4 Influence of Competition from Commercial Bank on Financial Performance of SACCOs in Kericho County

The findings on the relationship between competition from commercial banks and the financial performance of SACCOs reveal that competition from commercial banks was a significant factor in financial performance of the SACCOs. The findings indicated that SACCOs were more competitive than commercial banks in service delivery, SACCOs rely on commercial banks for many banking services and hence a lot of dependency on banks; staff were well educated and trained hence edging up competition in terms of skills and knowledge. Furthermore, commercial bank loan advertisements doesn't affect growth of SACCOs, commercial banks aren't great threat to survival of SACCO and doesn't poach SACCO employees. Savings products and customer services was at par with those of banks.

5.3 Conclusions

The main aim of the study was to determine factors influencing financial performance of SACCOs in Kericho County, with emphasis on information technology, loan repayment, interest rate charged and competition from commercial banks. This was achieved by administering a questionnaire to employees of SACCOs within Kericho County. The summary of our findings are as presented below.

According to the findings adoption of information technology among the SACCOs has improved their financial performance through the following: computerization has improved loans disbursement and loan recovery; errors and differences in records are easily corrected and reconciliations done on time; Members' issues and statement requests are responded to promptly using information technology adopted; information technology usage has increased the number of customers in the Sacco and has improved service delivery within the Sacco; also reports produced by information system are accurate and reliable. Therefore information technology has saved Sacco running cost and improved profits for the Sacco. Mobile money banking technology was found to improve performance of SACCOs as they: ease service delivery to customers, reduces congestion in banking hall, saves on time and convenience to customers as they can process transactions wherever they are; and ease operations of customers in terms of cost and convenience.

Regarding loan repayment, both check off system and monthly cash repayment were used by most SACCOs implying that they have balanced number of members who are employed by various ministries and self-employed with no regular salaries who pay monthly cash installments. There are challenges faced using those systems therefore corrective measures should be taken for smooth operations and the possible solution to these challenges are: boosting network connections, system upgrade to work it more efficient, increasing band width, having a backup and independent line; and continuous improvement of the system. The maximum period for loan repayment is seventy two months. The findings showed that SACCO need provision for irrecoverable loans, loan delinquency need to be fully minimized for the last five years, SACCOs should reward loan depending on borrowers' ability to pay. Loans should closely be monitored to ensure timely repayment and cases of late repayment should be considered by SACCO.

From the study the average rate of interest rate charged by each Sacco is between 14% and 20% straight line basis therefore Sacco's are able to advance loans at interest rates lower than those charged by other financial providers and are able to reach clients in areas that are unattractive to banks. Interest rate was found to affect financial performance of SACCOs: if interest rate is high disbursement of loan is low thus a decrease in profitability since loan uptake becomes low and loan repayment becomes high therefore dampening loan uptake by members. Therefore, interest rate on loans should be reviewed regularly to match competition

and retain clients, and prevailing interest of other financial institution and central bank should be considered when drafting lending interest rate.

The presence of competition from other commercial bank played a significant role in bringing healthy competition with the SACCOs and making the SACCOs to regularly check and update their products in the market, review their interest rate so attract more customers, regularly train their employees, loan advertisements and improve their service delivery. It was concluded that competition from other commercial banks has relation with financial performance of SACCOs and should be addressed.

5.4 Policy Recommendations

In line with the study findings above the following recommendations are made;

From the findings and conclusion the study recommends that SACCO managers should embrace and incorporate IT use in their efforts to gain competitive advantage over their other rivals in the market. They should adopt up-to-date forms of information technology such as mobile technology, M-Wallet and web based system, since a good computerized system makes operations efficient and convenient to serve customers at ease and saves on time thus making the Sacco attractive to other customers. It also makes it easy to track loan delinquencies, provisions and write offs.

The management should impose strict measures on loan borrowers who fail to repay on due date; closely monitor loan repayments to ensure timely repayment; strategies for provisions for irrecoverable loans; and engage employees when making changes in the systems so that there will be smooth operations of the activities and ensure that all employees are well trained about the policies governing the SACCOs to enlighten the employees on their knowledge about SACCO and their profitability. Interest rate charged by Sacco should be reviewed regularly as per the prevailing market rate and ensure that competition from commercial banks is managed well through updating their products in the market, SACCOs should regularly check and update their products in the market, review their interest rate so as to attract more customers, regularly train their employees, loan advertisements and improve their service delivery. Also, it is recommended that SACCOs should diversify its product to be able to compete perfectly in the market and to meet the demands of its members; this can be done through market research.

5.5 Suggestions for Further Study

Further research should be done to determine the prerequisite factors that influence financial performance of SACCOs in other Counties. Another study could be carried out using other factors such as mobile banking technology, E-Banking and quality of management that influence the financial performance of SACCOs, effects of Credit Reference Bureaus (CRB) on financial performance of SACCOs and effects of government regulation on financial performance of SACCOs. Investigate if types of loan products offered by SACCOs affect the loan volume granted by SACCOs.

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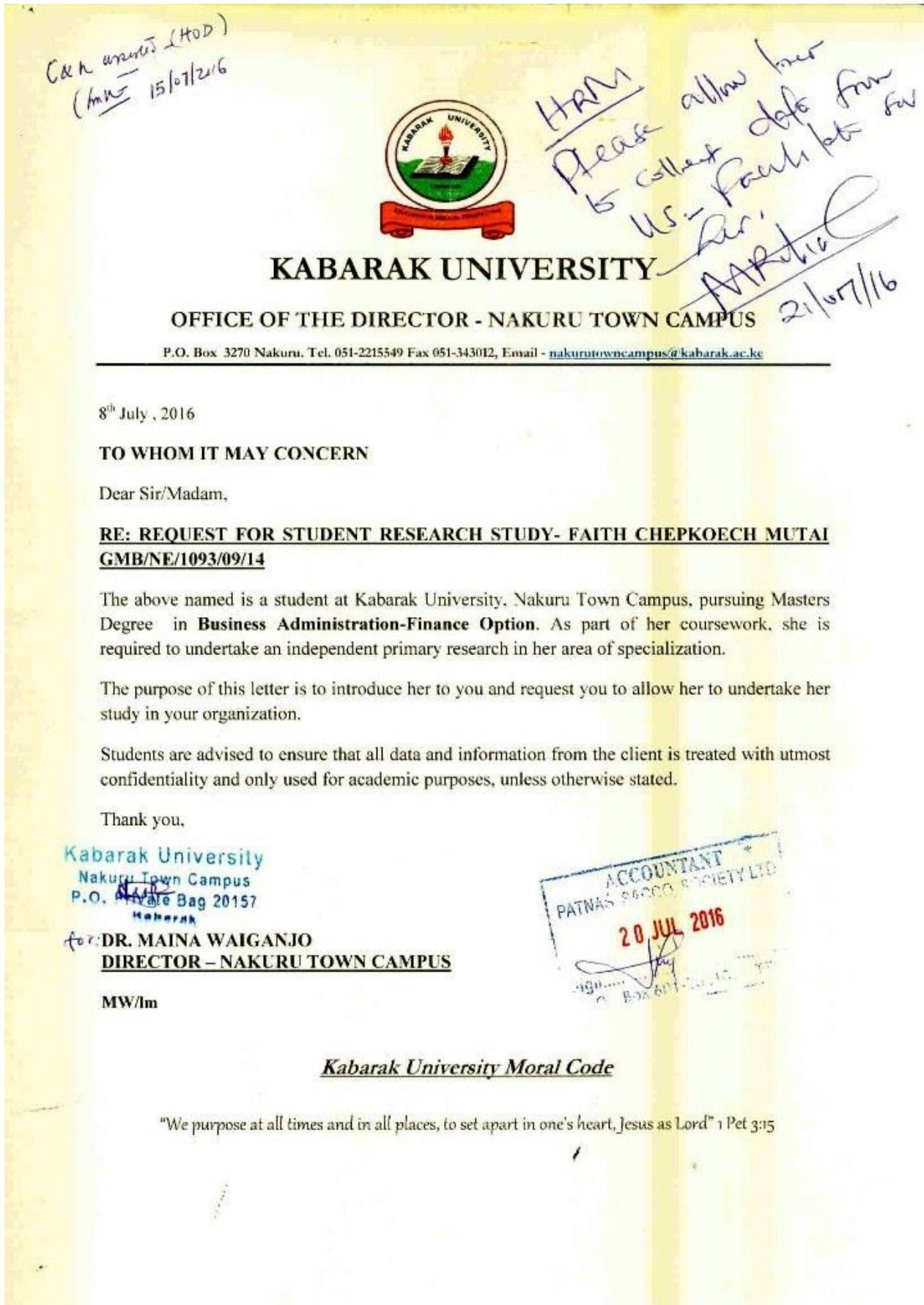
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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION



APPENDIX II: INTRODUCTORY LETTER

KABARAK UNIVERSITY

PRIVATE BAG – 20157

NAKURU, KENYA.

August 2016

Dear Respondent,

RE: REQUEST TO CARRY OUT A RESEARCH STUDY

I am an MBA student from Kabarak University doing a research on **Factors influencing financial performance of SACCOs in Kericho County**. Kindly assist in filling this questionnaire. All information provided will be treated with utmost confidentiality and will not be used for any other purpose other than that for academic only. Your participation and cooperation will be highly appreciated.

Thank you.

Yours faithfully,

Faith Chepkoech Mutai

APPENDIX III: QUESTIONNAIRE

SECTION 1: BACKGROUND INFORMATION

1. Gender

Male () Female ()

2. Highest level of education attained

Certificate ()

Diploma ()

Undergraduate degree ()

Postgraduate degree ()

3. State the number of years you have been working in the Sacco

4. State the number of branches the Sacco has

SECTION 2: FACTORS OF SACCO FINANCIAL PERFORMANCE

This section has three sub-sections. Each sub-section has statements related to a factor influencing financial performance. Please indicate by a tick your opinion on each statement

A. Influence of Information Technology on financial performance of SACCOs

1. Select the form of IT utilized by the Sacco

E-Banking ()

Phone Banking like M-pesa ()

ATM/ Sacco link ()

CCTV ()

Others _____

2. Tick the appropriate attribute towards adoption of IT in your Sacco

- a. To provide faster and cheaper services ()
- b. To stay ahead in competition ()
- c. Because others did ()

3. Do you have interconnected network throughout your branches?

YES () NO ()

If no, please give a reason.....

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
IT usage increase number of customers in the Sacco					
Reports produced by our information system are accurate and reliable					
Computerization has improved loans disbursement and loan recovery					
Errors and differences in records are easily corrected and reconciliations done on time					
Members' issues and statement requests are responded to promptly.					
IT increase convenience in accessing Sacco services					
IT save on Sacco running costs					
IT has improved profits for the Sacco					
IT has improved service delivery within the Sacco					

4. How do you think the adoption of mobile money banking technology will improve the performance of your SACCO?

.....

B. Loan repayment on financial performance of SACCOs

1. What system do you apply to your members to repay their loan?

Check off system () Monthly cash installment () both ()

2. Do you face challenges using your system? Yes () No ()

If yes what can you suggest as the possible solution to the challenges?

3. What is the maximum period given to borrowers to repay their loan?

Six months () One year () Two years () Three years () any other ()

4. What is the form of security administered by the Sacco to recover loans?

Guarantors ()

Insure loans ()

Collaterals ()

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
Loan borrowers honor loan repayment on due date					
Loan delinquency has been minimized in the last 5 years.					
Members of the Sacco are eager to repay their loans promptly					
Sacco has provision for irrecoverable loans					
Sacco awards loan depending on the borrowers' ability to pay					

Deposit savings act as security in future when taking loans from the Sacco					
Loans are closely monitored to ensure timely repayment					
Clients with difficulty in loan repayment are given an extension period on request					

C. Influence of interest rate on financial performance of SACCOs

1. How would you rate the level of inflation in the country for the last two years?

Very high () High () Moderate () Low ()

2. Has the level of inflation affected the interest rate in your SACCO?

Yes () No ()

If yes, Please specify _____

3. What has been the average rate of interest charged on loan to your members for the last 2 years?

Please specify _____

4. How can you rate the interest you charge as compared to other financial institutions in the county?

High () Competitive () Low ()

5. Does the interest rate charged by your SACCO affect its financial performance?

Yes () No ()

If yes, Please specify _____

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
Management follows strictly laws and regulation when handling issues related to interests.					
Interest rates on loans are reviewed regularly to match competition and retain clients.					
Prevailing interest of other financial institutions and central bank are considered when drafting lending interest rates.					
Sacco has lost clients to other lending institution due to interest rates charged.					

D. Influence of Competition from commercial banks on financial performance of SACCOs

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
Commercial banks are a great threat to survival of our SACCO.					
Savings products of commercial banks are a great competitor to our SACCO products.					
Loans from commercial banks are more favorable than loans from our SACCO.					
Commercial banks have better customer service than our SACCO					

SACCOs are more competitive than commercial banks in service delivery.					
Banks are managed by well educated and trained banks than those of SACCOs					
Commercial banks poach SACCO employees and hence hampering their operations					

E: FINANCIAL PERFORMANCE OF DEPOSIT TAKING SACCO'S

Profitability of the Sacco

What is the trend of the following in your business for the last five years? Please tick as appropriate.

Trend	Greatly Improved	Improved	Constant	Decreasing	Greatly decreased
No. of members					
Gross Income					
Share Capital					
Deposits					
Loan issued					
Interest on deposits					
Rate of dividends					
FOSA deposits					

APPENDIX IV: SACCOs IN KERICHO COUNTY

DEPOSIT TAKING SACCOS LICENCED BY SASRA AS AT 31st DECEMBER 2015 IN KERICHO COUNTY

Name of SACCO	Postal Address
1. NDEGE CHAI SACCO	P.O Box 857-20200 Kericho
2. IMARISHA SACCO	P.O Box 682-20200 Kericho
3. KENYAHIGHLANDS SACCO	P.O Box 2085-20200 Kericho
4. SIMBA CHAI SACCO	P.O Box 977-20200 Kericho
5. GREEN HILL SACCO	P.O Box 59-20200 Fortenan
6. PATNAS SACCO	P.O Box 601-20210 Litein

Source: Ministry of Cooperative, Kericho County (2015)