THE IMPACT OF RISK BASED INTERNAL AUDIT ON
OPERATIONAL EFFICIENCY OF DEPOSIT TAKING SACCOS IN
NAIROBI COUNTY, KENYA

BY
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DECLARATION

This research project is my original work and has not been submitted for a degree in any other university or institution of higher learning.

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Caroline Kathambi Riungu

D61/81162/2015

This research project has been submitted for examination with my approval as university supervisor.

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I thank my family members for giving me the moral support that I needed especially my husband Meshack who encouraged me to the very end of the project. To my parents, brothers and sisters am grateful for your support in my life.
DEDICATION

I dedicate this research project to my beloved husband Meshack and children Ian, Emma and Elsie for motivating me to work hard during my studies.

I thank my parents for encouraging me to pursue higher education and making me believe that nothing is impossible to achieve as long as I am focused and determined.
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<table>
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<td>CG</td>
<td>Corporate Governance</td>
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<td>CR</td>
<td>Control Risk</td>
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<td>EMH</td>
<td>Efficient Market Hypothesis</td>
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<td>FOSA</td>
<td>Front Office Service Activity</td>
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<td>IA</td>
<td>Internal Audit</td>
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<td>IAC</td>
<td>Internal Audit Capacity</td>
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<td>ICA</td>
<td>International Co-operative Alliance</td>
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<td>IIA</td>
<td>Institute of Internal Auditors</td>
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<td>IPPF</td>
<td>International standards for the professional practice framework for internal Auditing</td>
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<td>IR</td>
<td>Inherent Risk</td>
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<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>PPF</td>
<td>Professional Practice Framework</td>
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<tr>
<td>RBA</td>
<td>Risk Based Audit</td>
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<td>RBIA</td>
<td>Risk Based Internal Audit</td>
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<td>RMD</td>
<td>Risk Management Department</td>
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<td>SACCO</td>
<td>Savings and Credit Cooperative Societies</td>
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<tr>
<td>SAS</td>
<td>Statements of Auditing Standards</td>
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<tr>
<td>SASRA</td>
<td>SACCO Societies Regulatory Authority</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package of Social sciences</td>
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<td>UAE</td>
<td>United Arbs Emirates</td>
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ABSTRACT

Organizations are facing changes in every aspect of their operations in terms of emerging technologies and processes. This has led to emergence of new business risks which previously were not in existence. These developing trends have forced enterprises to redevelop their strategies and reconsider the internal auditing’s importance. Risk based internal auditing has materialized as a key enabler of efficient risk management. There are critical benefits that accrue to the firms that pursues operational efficiency such as achieving higher profits margins, customer satisfaction and seamless process. The purpose of this research was to explore the effect of risk based internal auditing on operational efficiency of deposit taking SACCOs in Nairobi county. The target population of the research was the 42 DTS operating in Nairobi county. A questionnaire rated on the 5-point likert scale was used to obtain responses from internal auditors, finance managers and chief executive officers. The study targeted a total of 126 responses, out of these 103 filled and returned the questionnaire. Secondary data was obtained from SACCOs financial statements. Tables and charts aided in exhibiting the information to enhance presentation of results that have been analyzed to enable interpretation. The study found out by use of regression model on the study variables, the dependent variable being operational efficiency and the independent variable being risk based internal audit measured in terms of variables for instance risk evaluation, internal audit competence, risk-based planning as well as internal auditing standards. 18.4% of sources of operational efficiencies in the DTS may possibly be as result of joint effects of the predictor variables. The research design was descriptive. The research adopted one-way ANOVA to establish the significance of the regression model from which a 0.001227 probability value was determined. The study concluded that DTS that are promoting usage of risk based internal audit has positive influence on the operational efficiency through increased profitability, business turnover and volume of sales. The study suggests further survey on other competitive strategies that organizations can apply to enhance operational efficiencies by focusing on other sectors.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Internal audits function serves an essential drive in uplifting assurance and strengthening confidence in organizations operations and financial data. Kabare (2014) argues that through use of risk based audit the audit function is able to give guarantee that risks are being controlled effectively. Organizations pursues operational efficiency which leads to clarity of processes, ownership, consistency, improved oversight and control in general (Eisenhardt, 1985). Elements that impact on efficiency level are design of processes, use of technology, quality of management, corporate culture and availability of timely and accurate process data (Mohammed, 2017).

There are several theories that are used to describe the relation between risk based internal audit and operational efficiency. The first concept is the agency theory which was developed by Stephen Ross (1972). The theory perceives conflicts of interest between agent and principal, information asymmetries and divergent reasons. Leaders are likely to not have confidence in agents, hence audit function gets involved to reinforce and reinstall this trust. Eugene Fama (1970) developed the second theory of efficient markets hypothesis stating that trade of stocks at their fair value, that makes it difficult for investors to buy stock that are underestimated or to trade stocks with overestimated prices. The third theory is risk based internal audit theory by Alexander (1991), it states previous client specific engagements and experience enhances auditors’ ability to assess emerging risks with accuracy.
United States of America experienced financial crisis several years back that was brought about by mismanagement and manipulation of statements of accounts by firms such as Enron and World Com which made organizations rethink the need of detecting the risks in advance and how they will manage these risks (Donaldson, 2003). The developed economies have legislated regulatory frameworks to respond and combat such crisis (Sarbanes-oxley Act, 2002). In the local economy several organizations have suffered financial losses after mismanagement problems leading to their closure (Njihia, 2016).

1.1.1 Risk Based Internal Audit

Risk based internal auditing as defined by Institute of Internal Auditors is a goal assertion, independent and accessing action that is aimed at adding value and improving the organizational operations (11A, 2004). The risk based internal audit has been defined as a function that helps institutions attain their purposes by having a disciplined, an efficient procedure to appraise and enhance the efficiency of governance process, risk managing as well as internal controls (IIA, 2003). RBIA is viewed as the major change from the traditional past way of auditing that took the method of pre-auditing of transactions to then systems audit and the now current RBIA. Risk based internal audit is the method followed by the internal auditor while determining the audit techniques and procedures to be done based on the indication that there is a greater probability that accounts, disclosures and balances could be misstated (Marks, 2001).

The evaluation, consideration and adoption of risk based internal audit method is a result of endeavoring for continuous improvement and the progress of the services that the internal audit provides as a profession.
According to IIA (2009) the task of audit function in regard to risk controlling is to give assurance risk controlling processes and their design are working well. Management of risks that are categorized as crucial is being done. Reviewing how effective the internal controls are working and the responses to them. Checking there is dependable and proper evaluation and reporting of risks is done and control status is being executed. Goodwin-Stewart and Kent (2006) asserts internal audit is involved in a critical role in identifying areas to improve on risk management and monitoring company’s risk register and profile.

In this research study, Risk Based Internal Audit will be characterized by risk assessment, internal auditing standards, risk management, yearly risk based scheduling, and internal auditing capacity. Risk assessment is useful in classification of various risks consistent with the magnitude of loss they could bring about (Goodwin, 2003). The classification of the risks enables the management of the organization to separate risks that are threat to its existence as a going concern from those which are insignificant. Risk management techniques is a practice undertaken by institutions in recognizing of risks, measuring and giving priority to those risks depending on the impact they cause on the predetermined objectives. The impact of the risks could be positive or negative but the management uses the resources available to monitor, minimize and control the probability of adverse events and can also make the most use of opportunities presented by those risks (Wambui, 2013).
1.1.2 Operational Efficiency

Operational efficiency is defined as an enterprises capacity to offer its products, services and support to its members, customers and clients in a cost-effective ways and still guaranteeing high quality standards are maintained (Claessens & Wong, 2002). In business settings, operational efficiency is defined as the proportion between yields earned from business enterprise and a contribution made to maintain a business operation (Vafeas, 1999). The expressions operational effectiveness, efficiency, excellency and proficiency are frequently used interchangeably. Operational efficiency has been defined as firm’s key processes that have to be streamlined in order to adequately respond to constantly changing business forces in the most efficient and effective manner (Mohammad, 2017).

Operational efficiency is attained in organizations by minimizing redundancy, waste and at the same time taking advantage of available resources that contribute fully to its success (Carcello, Hermanson, & Raghunandan, 2005). Firms leverage the best way possible of its workforce, business processes and modern technology. The benefits that results from operational efficiency is that firms are able to achieve higher profits margins and are likely to be successful where there is stiff competition in the markets.

Deposit taking SACCO’s operational efficiency is looked at in the perspective of loan portfolio quality, management efficiency, liquidity management and sensitivity to risk. Operational efficiency in organizations can be measured using either financial performance or the key performance indicators model (Kaplan, 2001).
Generally, organizations operational efficiency is evaluated by the net operating income, customer satisfaction expense to revenue ratio and performance of processes. Expense to revenue ratio was used to measure operational efficiency of this study.

1.1.3 Effects of Risk Based Internal Auditing on Operational Efficiency

Risk based internal auditing influences organization’s use of its audit department in matters of internal controls, risk management and governance perspective which in turn influences accountability, improvement of internal processes and enhances accuracy of financial reporting thereby influencing operational efficiency of deposit taking SACCOs (Marete, 2014).

Kabare (2014) states when the structures of internal control systems work as intended there is an improved efficiency of an organization in the industry it operates. The basic premise of RBIA is that auditors should dedicate additional resources to areas that are rated high in risk and fewer resources to those areas that are rated low in risk thereby enhancing operational efficiency. Focusing on critical risks by auditors align audit priorities with those of the shareholders resulting in adding value to the entity. According to Griffiths (2006) due to the scarce audit resources, it is paramount that these resources should be directed towards checking the reaction and responses to those key risks that cause a serious danger to the existence of the organization, it was also noted that board of directors must ensure high rated risks are appropriately mitigated and managed.
From the findings of the examination of the effect of risk based audit done in commercial banks in Kenya, there is a conclusion of positive correlation as the firms have ability of detecting risks on time, this enable them to concentrate on high risks which leads to increased accountability and transparency and therefore enhancing firm’s operational efficiency (Mutua, 2012). The study attempted to ascertain the link between risks based internal auditing and operational efficiency in Deposit taking SACCOs in Nairobi County.

1.1.4 Deposit Taking SACCOs in Nairobi County

The deposit taking Saccos comprises of savings and credit cooperatives which have variant asset base, with some comprising of an asset base greater than thirty billion Kenyan shillings and others with small asset base of ten million Kenyan shillings. These Sacco are spread throughout the country both in large cities and rural Kenya (SASRA Supervision Report, 2016). Deposit taking SACCOs (DTS) operate differently from other financial institutions, the reason being the customers are at the same time the owners who hold accounts and have the voting mandate of one vote one member irrespective of the member total shareholding. The Sacco members are allowed to deposit and borrow, the citizens of the republic who are not members are not allowed to transact in the SACCOs as is in the case of commercial banks (Jared, 2013).

There are 42 deposit taking Sacco’s in Nairobi County as per SASRA annual supervision report of 2017. The DTS are compelled by regulator to maintain a particular amount of capital which is sufficient enough to cushion deposits from members and their creditors against losses that may result from business risks. Risk based internal audit for DTS are
structured in the same way like for other commercial banks and micro finance institutions. This method of auditing selects high risks sections determined by the risk assessment (Wambui, 2013). Nathalie (2012) carried out study on contribution of risk based audit in the realization of corporate objectives, in the context of Pakistan and Sweden universities. The research found out RBIA indirectly contributes in the achievement of organization objectives and can improve operational efficiency.

The licensing, regulation and supervision of DTS has been placed under the armpit of the SACCO Societies Regulatory Authority (SASRA) through the establishment of SACCO Societies Act 2008. It is a requirement for DTS to appoint an internal auditor who is managerially answerable to the chief executive officer as well as operationally to the audit committee board (SASRA, 2010).

1.2 Research Problem

The RBIA methodology is properly articulated to enable the auditor to resourcefully pay attention to the type, effectiveness and level of audit processes to the areas with high potential for causing business disruptions and material misstatements (Masika, 2013). The audit evaluates organizations operations and the governance but the management is held responsible for production of accurate reports. The scheduled audits carried ensure there is compliance to regulations, laws, policies and standards (Bowlin, 2009). Audits is tasked with monitoring operating results, verifying the accuracy of accounts and the audit trails. Provision of value adding advice to the board of directors and management has direct effect on improvement of processes and practices.
Risks of frauds, waste, breakdown of controls are identified and corrective action taken which leads to improving efficiency in operations (Rodu and Romana, 2013). Deposit taking SACCO’s in Kenya has been marred with inadequate internal management capacity, operational controls and financial controls.

The subsector has faced numerous challenges such as decreasing growth of loan book, shrinking sources for liquidity, declining fees income, shifting of competitive market and demographic shifts. These challenges have resulted to the Saccos facing stunted growth (Mbuti, 2014). Inadequate management systems in Deposit taking SACCO’s has resulted in massive investment losses through deceit and mismanaging assets used for making profits. From the SASRA SACCO supervision annual report 2015 three SACCOs licences were revoked with some of the reasons being inability to meet obligations to members and creditors. Other SACCOs such as M/S Jijenge SACCO society ltd are under statutory management after the society experienced acute liquidity challenges.

Deposit taking SACCOs letdowns are normally heralded by financial difficulty as well as diminishing financial performance (Jared, 2013). There is need for continuous auditing and monitoring if we are to respond to managerial accountability and assessment of service delivery in the SACCOs. The researcher would be interested in establishing whether application of RBIA practices has ability to respond to the mentioned shortcomings. In Kenya, deposit taking SACCOs regulated by SASRA have statutory requirement to have internal audit function. Researches have been done surrounding the area of RBIA but to a great extent, there is no adequate researches that have thoroughly probed this subsector of the deposit taking SACCOs.
Mohammad (2017), studied the impact of internal audit on organizational performance and concluded there exists a substantial positive effect of internal audit on organizational performance. An effective risk based supervision by the regulators and an effective risk management by the credit unions is dependent on the execution of suitable organization governing processes and on risk based internal audits (Watts & Zimmerman 1983). McCord (2002) affirms large contributions are made by internal audit towards achievement of the company goals and the implementation of the strategies.

Local studies on relationship of risk based internal auditing on operational efficiency in deposit taking SACCOs and regulated by SASRA are absent with a few done addressing the implications of risk based audit on financial performance in micro finance institutions. For instance, Maiteka (2010) researched on corporate governance on selected ministries in the public sector in Kenya and how it was influenced by risk based audit. RBA was noted to evaluate and analyze risks which are experienced by the government ministries in proper time, to enhance good governance auditors concentrated on high risk areas which in turn increases accountability and transparency (Jared, 2013).

Despite influence of risk based internal auditing on operational efficiency in organization, studies on risk based internal audit on operational efficiency of Deposit taking Saccos in Nairobi County have not been done. This research seeks to fill the knowledge gap by establishing the influence of RBIA on operational efficiency in deposit taking SACCOs. The study attempts to answer the questions: what risk based internal audit practices are adopted and what is the impact of risk based internal auditing on operational proficiency of deposit holding SACCOs in Nairobi County?
1.3 Research Objective

The aim of this study is to explore the influence of risk based internal auditing on operational efficiency of deposit holding SACCOs in Nairobi County.

1.4 Value of the Study

This research is vital as it will allow organizations boards and administration appreciate the importance of risk based internal audit practices and assist them in assessing their compliance extent relative to their competitors or the entire market, and in determining whether risk based internal audit practices improve SACCOs operational efficiency.

The academicians who will be furnished with relevant information pertaining the link between RBIA practices and operational proficiency in the Deposit taking Saccos in Nairobi County. The findings gathered from this research will add to the general knowledge body and become a point of reference for future studies in risk based audit.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This part consists of an overview of studies by other researchers who have studied the areas of risk management, governance and risk based audits. More attention has been given to the link between risk based internal audit and operational efficiency of deposit taking SACCOs in Nairobi County. Areas covered include theoretical framework, empirical review and literature review summary.

2.2 Theoretical Framework

The study will be hinged on these concepts: Agency theory, efficient market hypothesis theory and risk based internal audit theory which are discussed in this section.

2.2.1 Agency Theory

Concerns of separation of control and ownership in modern businesses as advanced by Stephen Ross (1972) brought about the existence of agency relationship between principles as shareholders and agents as management. The agency theory describes the relationship amongst agents and principals in business. The theory concern is solving problematic issues that could possibly exist in work relationships because of misaligned goals or diverse aversion altitudes of risks. Agency theory states that protection of the interest of the shareholders is eminent by separating the roles played by the directors and the management in the organizations.
Agency theory argues that due to conflict of interest the organization management may fail to pursue the goal of make the most of shareholder returns (Pratt & Zeckhauser, 1985). Consistent with agency theory, principal are owners as well as the agents are managers and there exists an agency cost which is the degree to which returns to the lasting owners, the principals, falls below what they would be if the owners, managed the corporation by themselves (Jensen & Meckling 1976). This concept stipulates means, which lower agency cost (Eisenhardt 1985). The schemes comprise rewarding managers financially because of maximizing the interests of the shareholders. These schemes normally include plans where managers are allowed to be part of the firm owner by issuing shares to them at a lesser price, thereby putting in line business interests of managers with shareholders’ (Jensen and Meckling 1976).

In the perspective of financial institutions as well as enterprises’ control issues, this theory considers the Board of Directors as an important tool that monitors any problems arising that are brought about by the relationships of agent-principal and ensure these are minimized to a tolerable level. Agency costs results from managers misusing their powers and positions, also these costs are incurred in monitoring and disciplining them to ensure perform a key economic role as well as attending to public interest, this strengthens responsibility, trust and assurance in operational recording. The agent-principal relationship, as portrayed in agency theory, is essential in appreciating the manner in which the audit has advanced over time (Bowlin, 2009). The agents are appointed by principals and decision making authority is delegated to them.
Through these delegated authority principals trust in the appointed agents to act in their best interests. Despite all this due to of information asymmetries amongst principals as well as agents and divergent aims, principals tend not to have confidence in their appointed agents and could require to introduce means for instance the audit function, to fortify this confidence. As such, audits seek to promote, expand the number, value and variety of transactions the firms are prepared to engage in and thus enhance economic prosperity.

2.2.2 Efficient Market Hypothesis

Eugene Fama (1970) originally formulated the efficient market hypothesis (EMH). The key concept of the theory can be expressed as any market is viewed as efficient in which the price of capital reflects the available information to investors and traders (Bhagavath, 2009). In efficient market, all information is incorporated into prices and there are no under or overvalued available securities. Informationally efficient market could mean things different from markets that operates effectively. Operational efficiency measures the functioning of how well things are done in terms of accuracy and speed of execution without compromising quality. While as, information efficiency measures how quickly and accurately market react to new information (Dhillon, 2012). Investors seek to pay the lowest fee to earn the maximum returns because operationally efficient transactions are those that are exchanged with the maximum returns (Kiete & Uloza, 2005). Situations arise in the market where information is efficient but operationally and allocationally are not efficient. For instance, the higher the transactions in the market the higher the cost of using financial market and the lower the operational efficiency.
Transactions cost are assumed to be zero and the market are perfectly liquid in the theoretical world of perfect capital markets which implies perfect operational efficiency. In the modern trade the transaction fees have been pushed down due to advancement in technology and stiff competition which is fair to investors and still allows brokers to earn a worthwhile profit (Dixit, 1996). The focus by the regulators on the notions of the internal control systems and risk management have aggravated the need for risk based internal audits to be included as a major aspect of corporate governance structure (Spira & Page, 2003). EMH theory insinuate transaction costs need to be balanced by an attention to transactions benefits, both at individual and organizational levels. There is need to maximize transactions benefits while minimizing transactions costs. The RBIA focuses on checking and ensuring the organizations are operating effectively and efficiently.

2.2.3 Risk Based Internal Audit Theory

Risk based internal audit theory was proposed by Alexander (1991). The exposure gained by the auditors from the specific client enables them to sharpen their skills to assess the client’s future risks with accuracy. Nevertheless, earlier studies in psychology proposes that people are inclined to exaggerate encounters when confronted with present risk signals that do not align with previous encounters. This strategy evaluates the concerns of previous, positive customer-particular involvements and competence concerns, characterized by costly risk signals, on the capability to create an operational risk evaluation. The findings have a clear indication that auditors are influenced by prior experience.
Proficiency outcomes seems to agree that higher cue costs end up with sub optimal risk cue selection, but do not automatically adversely affect effectiveness in risk assessment. The theory argues client-specific involvements enhances the auditors’ insights and audit evaluations (Bell et al. 1997; Bell and Solomon 2001). The risk emerges that auditors are likely to rely on the historical experiences gained from the specific client which is retrogressive in nature and fail to give adequate considerations to emerging trends.

RBIA theory states all departments in the organization should institute risk management awareness, take appropriate actions to mitigate the risks, identify risk control points and record several risk controls (Doolin and Lawrence, 1997). This theory claims organization management are tasked with the responsibility of recognizing and managing risks, while on the other hand the core functions of the internal audit department is to give guarantee that the identified risks have been controlled appropriately. The internal audit is one of the cornerstone of governance, for it to achieve its mission there is need to position its engagements in the context of enterprise risk management policy. This encompasses considering the way management identify, evaluate, analyze, react to and report the risks, and also look at how effectively management examines the manner in which reactions to risks are functioning.

2.3 Determinants of Operational Efficiency in Deposit Taking SACCOs

There are internal and external dynamics which influence the operational efficiency of specific organizations. These include composition of credit portfolio and size, asset quality, state of information technology, labor productivity, management efficiency and risk level.
Key drivers of operational efficiency of an organization are discussed below.

2.3.1 Risk Based Internal Audit

Internal audit has a mandate of assessing to what extent an organization management has implemented and applied a robust risk management approach that helps lessen the risks to a standard degree set by the board and that is per the firms’ risk appetite. The internal audits core involvement in ERM is to offer assurance on management’s treatment of risks through control and governance practices. Kabare (2014) concluded risk based audit improve the performance of the commercial Kenyan government institutions and auditors should adopt universal auditing guidelines that monitor internal audit code of conduct and safeguard professional auditing principles. RBIA enables the auditors to give advice to management and board on characteristics of their response to risk for instance resolutions to end, tolerate or risks transfer through Sacco.

2.3.2 Information Technology

Information Technology (IT) is one of the strategic drivers of the organizations operational efficiency in the 21st century, for operational efficiency in the current vibrant and highly modest business settings it requires employing cutting edge IT tools to deliver superior quality services and products to customers, ensure cost effectiveness and improve on operational efficiency (Allen & Morton, 2004). Information technology is used as a means of communicating, marketing, looking for prospective customers and clients and also offering IT services to customers. Companies are gradually leveraging on information technology to come up with solutions to problems faced in day to day operations, enhance productivity and service quality, improve on decision making process
and venture into new markets (Molloy & Schwenk, 1995). As stated by Cerere (1993) enterprises have continuously pursued and embraced IT that boosts determinations of their work in management and production.

2.3.3 Asset Quality

Sacco’s assets are another precise identified variable that has influence on the profitability and operational efficiency of deposit taking Saccos. Some of the company’s assets include credit portfolio, current assets, investments, stocks and fixed assets. Regularly, an increasing asset can be linked to the years of existence by the enterprise (Shekhar & Lekshmy, 2007). Organizations that earn steadily can be associated with the quality of their assets, because when assets are diligently utilized they have ability to enhance earnings. It fundamentally governs the productivity of the Organization. It determines the growth in earnings and sustainability in the future. The noticeable signs of poor asset quality in organization include acquisition, placement into receivership, brokerage problems, governance issues and customers freight (Vong & Hoi, 2009).

2.4 Empirical Studies

This part addresses the empirical review of the study. Local and international empirical studies have been reviewed.

2.4.1 International Evidence

Ming and Mei (2008) conducted a study in Taiwanese banking industry in regard to risk based internal auditing. The study explored factors associated with demands for risk based audit from the perceptions of internal controls, risk management, internal auditors’
technical proficiency and corporate governance in the Taiwanese Banks. The researcher developed questionnaire based on Implementing Bank Internal Audit standards as well as Internal Control Systems (FSC 2007). Results from the study suggested that banks risk management framework is greatly linked with the role played by the internal audit. It was concluded there is significant negative correlation that existed between the level of risk based internal audit employed by the banks and the size of board. However, the study has not established the extent to which RBIA affected operational efficiency.

Vijesh & Hafiz (2015), carried out a study on the importance of internal audit and risk management practices in UAE. Online survey was done between the months of September and November 2014. The study aimed to gauge and give understanding into the practices of risk management and also to document the role internal audit is concerned with in respect to organization risk management. The results of the study revealed due to lack of awareness senior management and board have not supported risk management efforts to revamp the function. It was concluded majority of companies’ risk management activities are restricted to risk evaluations and assessments with other roles of risk being pursued by internal audit. The study focused in the significance of internal audit on risk control of the non-financial institutions but the researcher did not establish the internal audit practices that should be adopted by the organization to ensure successful implementation of ERM.

Vahit & Duygu (2014) carried study on risk-based auditing and risk assessment process done in Istanbul, Turkey. The study aimed at describing the change in the internal audit with general lines of defense as the last point, examining how the risks are being
identified and measured and how risk assessment affects risk based internal audit planning which is critical stage of the process. The researchers obtained information by reviewing the secondary literature. The key finding was that risk assessment phase is the most important step involved in risk based internal audit execution methodology. The study concluded that although risk assessment and internal audit activities have previously been considered as two separate and independent concepts that view is nowadays changing, the two activities levels of interaction have increased and depend on each other’s process outcomes. The study has not established how RBIA and risk assessment impact on the performance of the organizations.

Philip Ayagre (2014) the researcher sought to find out what factors Ghanaian companies considered when making a decision on whether to adopt or not adopt risk based internal audit. The survey utilized Pearson’s chi-square test of independence model at a p-value of 0.05. The results of the study indicated risk-based approach was commonly practiced by internal audit function as evidenced amongst club 100 Ghanaian companies, amongst manufacturing, financial and telecommunication companies. It was concluded the major factor that boosted adoption of risk-based audit approach is that it enabled the companies to give priority to areas identified as sources of high risks. The study did not demonstrate how the RBIA practices are used by the internal audit significance as well as how they affect operational efficiency of companies.
2.4.2 Local Evidence

Marete (2014) conducted a survey in commercial state corporations in Kenya with a view of understanding whether financial performance of those firms was affected by risk based internal audit approach. The focus was to establish whether factors such as annual risk based audit planning, audit capacity, risk management and audit standards practiced by internal audit has effects on commercial State Corporation’s financial performance. The researcher used descriptive survey research design with a view of gaining information that describes current phenomena. From the regression model, the finding were shown as profitability of commercial State Corporations would be at 5.91 holding risk assessment, risk based audit planning, audit capacity and auditing standards constant. It also came to the fore that a unit increase in either of the four key risk based internal audit factors/practices would positively impact on profitability of the State Corporations. It was concluded that there is a positive link between profitability of commercial State Corporations RBIA practices. The researcher recognized there are other aspects than RBIA practices that influences the financial performance of institutions like the firm size and capital adequacy.

Mbuti (2014) did a research to evaluate what is the influence of quality of reports issued by internal audit function on the financial performance of Saccos in Murang’a County in Kenya. The researcher employed descriptive research design. The study found out a number of SACCOs had objective reporting but there other SACCOs which were issuing audit reports to the board audit committee which cannot be termed as objective. It was found out in the surveyed SACCOs that 53% of the respondents were in agreement
quality of audit reports was acceptable but 47% of the respondents were of the opinion the quality of audit reports was low and not objective. The research concluded objective reporting by internal audit department in SACCOs has considerable positive impacts on the financial performance. This study excluded risk assessment as a factor affecting internal audit reporting quality.

Kasiva (2012) examined the financial performance of the Kenyan banking industry and how they are influenced by risk based audit. The study adopted Correlation research design and targeted 44 respondents that entailed internal auditors, finance officers, loan officers, accountants and relationship officers. The study administered questionnaires which comprised unstructured and structured questions. The findings indicated that banks encounter high risks in its operations. Mitigation measures should be sought to ensure seamless continuity of the business with rapidly changing technological environment. To enhance banks operations efficiency RBIA has been adopted which has helped in detecting risks on time and banks concentrate on areas rated high in risks which has led to increased accountability and transparency. Risk management, risk based audit planning and auditors’ competence have consistently improved the banks financial performance. The study concluded management of risks influence performance to a very great extent. Implementation of audit recommendation is still the prerogative of management and should be undertaken on a timely manner to enhance the financial reporting. The study distinguishes it is difficult and costly to assess and manage organization risks.
Wambui (2013) conducted a research to probe influence of risk management approaches on financial performance of regulated SACCOs. The researcher adopted correlation research design where quantitative data was gathered and analyzed so as to give description of the occurrence in its tendencies, events and ties between various aspects at a particular time. The study revealed that there exist risk controlling procedures and policies employed by SACCOs comprising putting in place investment diversification policy in various sectors, sound corporate governance, regulating financial management, conformity with internal financial standards, establishing risk management team, having internal audit and taking legal action on defaulters. The study concluded that maturity of risk management processes is correlated with sustainable improvements in firm’s performance as the efficiency of risk management is expected to significantly influence its financial performance. The study has emphasized on risk management practices, techniques, policies and procedures but has not given attention to risk management and internal audit function who monitors and assesses the organization risks.

2.5 Summary of Literature Review

The empirical researches discussed in the preceding section has given emphasize on various organizations matters that influence and relate with the financial and operational efficiency. Most prior research concerning risk based internal audit examined whether use of risk management, risk assessment, internal auditing standards risk based planning and internal audit staffing affect the operational efficiency of institutions. Nevertheless, to the knowledge of the researcher, it is likely to conclude that though there have been several researches on influence of risk based internal audit on financial and operational efficiency
and associated subjects both in developing and developed countries, Kenya to be precise, there are no studies that comprehensively examine the impact of risk based internal audit on operational efficiency of deposit accepting SACCOs. Therefore, this study is intended to fill the aforementioned gaps and offer concluding recommendations having key focus of analyzing and examining the operational efficiency of deposit taking SACCOs in Nairobi County and how it is impacted by RBIA practices.

Local studies on impact of risk based internal auditing on operational efficiency in deposit taking SACCOs and regulated by SASRA are absent with little done regarding the significance of auditing and governance in government. Maiteka (2010) did a research on corporate governance focusing on selected ministries in Kenya in public sector and how it is affected by risk-based audit. RBA was noted to evaluate and analyze risks which are experienced by the government ministries in proper time, to enhance good governance auditors concentrated on high risk areas which in turn increases accountability and transparency. There remain minimal or no study which empirically determine the impact of risk based internal audit on operational efficiency of Deposit taking Saccos in Nairobi County. This research will be done to fill the knowledge gap which has been identified.

2.6 Conceptual Model

Conceptual model is a configuration that comprises specific theoretical blocks, which exemplify the experimental, analytical and observational factors of a process being perceived (Kotler, 2000).
How these blocks interconnect completes the model anticipated results. Figure 2.1 below points out the dependent variables, independent variables as well as control variables. The independent, control and dependent variables of the study relate with each in that risk based internal auditing ties aspects of internal auditing together that is processes, objectives, controls, risks, reports and tests aimed at improving operational efficiencies in organizations. RBIA can be understood in relation to the whole risk management framework because of the connections set up in the risk and audit universe. This relationship leads to inclusive audit approach facilitating buy in and ownership from management. As result of the organization being closely involved in the risk and audit process through risk and control self-assessments, combined assurance activities management can relate to the benefits of the audit output (Chiggai, 2016). IT investments enhances organizational efficiencies as it has been empirically demonstrated by information technology researchers, it gives comparative advantage and enhances management capabilities (Griffith, 2006). Researches in the advanced nations have indicated that with good infrastructure, IT could possibly be a facilitator of socioeconomic development (Gakuo, 2011).
**Independent Variables**
- Risk assessment
- Internal Auditing Standards
- Annual Risk Based Planning
- Internal Auditing Capacity

**Dependent Variable**
Operational Efficiency measured by: Expense/Revenue Ratio

**Control Variable**
Information Technology

**Figure 2.1 Conceptual Model**
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This section discusses the research methodology and design that the researcher employed during the research. It presents research design, data collection, target population and data analysis.

3.2 Research Design

Research design is the way in which the research is intended i.e. technique employed to do the research (Mugenda and Mugenda, 2003). The researcher used descriptive research design. Quantity data was collected then analyzed so that specific occurrence in its present events, tendencies and links between various aspects at current time was systematically described. Descriptive design was the most suitable for this research because it allowed the researcher to inquire into a problem and report it without any form of interference. Future events can be predicted from the present knowledge through use of descriptive research design which enables distinction of associations among variables. Descriptive research design was justified as it allows testing of the expected relationships between and among variables and making of the predictions, it allowed the researcher to explore the impact of RBIA on operational efficiency of deposit taking SACCOs in Nairobi County. It was similarly utilized to obtain material regarding the present condition of the effects of risk based internal audit on operational efficiency of deposit taking SACCOs in Nairobi County.
3.3 Population

The study population entailed 42 deposit taking SACCOs accredited by SASRA operating in Nairobi County. The researcher used Census because there are 42 accredited deposit taking SACCOs (SASRA, 2017) and all the 42 SACCOs participated in the study. The DTS annual reports and financial statements for the years 2012 to 2017 were obtained. The information analyzed included net income, total assets, total revenue and total expenses.

3.4 Data Collection

The study utilized both primary and secondary data. Questionnaires aided in collecting primary data that was self-administered. Semi-structured questions were utilized in order to save time and expedite a straightforward analysis because of their immediate usable nature. The questionnaires were administered thought a drop and pick approach. To obtain and confirm on risk based internal audit practices the questionnaires were administered to internal auditors, finance managers and the chief executive officers. Through use of questionnaires respondents were able to provide their responses in a free situation.

Secondary data was obtained from Sacco’s annual financial reports for analysis of financial performance. The financial statements were collected from Sacco’s offices and their websites, this ensured all data needed for research was collected.
3.4.1 Validity and Reliability

The testing of the reliability and validity of the instruments was done through piloting. Validity shows extent to which the instrument measures the variables being researched (Mugenda and Mugenda, 2003). The researcher conducted a pilot study by taking a few questionnaires to the officers working in deposit taking SACCOs to be filled by the respondents at random so that detection of ambiguous and error questions could be identified and corrected in advance. Final questionnaire was drafted, printed and was used for collecting data that was used for analysis.

3.5 Data Analysis

The data obtained was analyzed by ways of quantitative and qualitative methods. The responses obtained in the returned questionnaires was classified, verified, coded then tabulated so as to analyze the data using Statistical Package for Social Science (SPSS version 22). For further data analysis the researcher utilized charts and tables. The data collected from the participants was keenly scrutinized to ensure its completeness and comprehensibility. In establishing the impact that risk based internal audit has on operational efficiency in the deposit taking SACCOs correlation and inferential statistic regression was utilized. The inferential statistic sought to establish a causal effect relating dependent variable to the independence variables. The risk based internal audit practices were measured from Likert scales. Correlation analysis was employed in determining strength of the link between risks based internal audit and the operational efficiency in deposit taking SACCOs in Nairobi County.
3.5.1 Analytical Model

The model treats operational efficiency of SACCOs as the dependent variable whereas the independent variables will be the risk-based internal audit practices which includes risk assessment, internal auditing principles, annual risk-based scheduling as well as internal audit competence. The response on RBIA practices were measured by computing responses derived from the Likert-Scaled questions. Information technology was used as a control variable on usage of data management systems.

The link equation is denoted in the following linear equation:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon \]

Where:

- \( Y \) - Change in efficiency (Measured by percentage change in Expense to Revenue Ratio for before and after implementation of risk based audits)
- \( \beta_0 \) - Constant Term
- \( \beta_1, \beta_5 \) - Beta coefficients
- \( X_1 \) - Risk Assessment
- \( X_2 \) - Annual Risk Based Planning
- \( X_3 \) - Internal Audit Capacity
- \( X_4 \) - Internal Auditing Standards
- \( X_5 \) - Information technology
- \( \epsilon \) - standard errors

Data on Expenses, Revenues was sourced from financial statements of the deposit taking SACCOs while likert scaled questions was used to provide information on risk based
internal audit practices adopted by the SACCOs i.e. Risk Assessment, Internal Auditing Standards, Annual Risk Based Planning and Internal Audit Capacity.

3.5.2 Test of Significance

Test of significance was conducted using regression model and yielded co-efficient of determination (R-square), f- test, t-test and Analysis of variance (ANOVA) at 95% confidence interval. ANOVA was utilized to establish the existence of any significant differences between the dependent and the independent variables. F- test was utilized to measure the whole regression model’s significance whereas the t-test was utilized to measure the independent variables’ significance in the model.
CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction
This part presents the data analysis, interpretation, and presentation of the study findings on the impact of risk based internal auditing on operational efficiency of deposit taking SACCOs in Nairobi County.

4.2 Demographic Information of the Respondents
The demographic data obtained from individual respondents and their background is examined in this segment. Doing this enabled the researcher to comprehend the respondents setting and their capability to provide useful data. The outcomes are indicated in accordance with the demographics and the research questions. The general information sought from the respondents included the level of education, the length of time they had worked for the Sacco industry, age and gender.

4.2.1 Response Rate
The research targeted a sum of 126 respondents who constituted of the internal auditors, finance managers and chief executive officers of deposit taking Saccos. Out of these, 103 respondents could be reached and completed the questionnaires while the rest were not available to fill the questionnaires; hence the response rate of the study was at 82%. Mugenda and Mugenda (2009) indicated that a response percentage of more than 70%, is considered good enough for examination and reporting.
4.2.2 Age of the Respondents

The age of the respondents was sought by the researcher.

Table 4.1 Age of the Respondents

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-28</td>
<td>7</td>
<td>7.1</td>
<td>7.1</td>
</tr>
<tr>
<td>29-39</td>
<td>47</td>
<td>45.2</td>
<td>52.4</td>
</tr>
<tr>
<td>40-50</td>
<td>42</td>
<td>40.5</td>
<td>92.9</td>
</tr>
<tr>
<td>51-60</td>
<td>7</td>
<td>7.1</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

The findings indicate that 45.2 percent of the respondents age ranged between 29 and 39 years. 40.5% age ranged between 40-50 years while 7.1% of the respondents were aged below 29 and another 7.1 percent aged below 29 years, this indicates that majority of the officers who responded is 85% were neither too young nor too old and therefore represent vibrant and experienced population whose experiences and responses can be relied upon.
4.2.3 Highest Academic Qualification

The study required the respondents to state the highest education level achieved.

Table 4.2 Education Level

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>39</td>
<td>38.1</td>
<td>38.1</td>
</tr>
<tr>
<td>Post graduate diploma</td>
<td>12</td>
<td>11.9</td>
<td>50.0</td>
</tr>
<tr>
<td>Masters</td>
<td>47</td>
<td>45.2</td>
<td>95.2</td>
</tr>
<tr>
<td>Doctorate</td>
<td>5</td>
<td>4.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

On this question, 45.2% of the respondents were holders of master’s degree while 4.8% were holders of Doctoral level qualification PhD. 11.9% were holders of post graduate diploma while 38.1 percent of the respondents were holders of a first degree only. This implies that most of the respondents had the requisite educational qualifications to make meaningful contributions to this study.

4.2.4 Length of Service in the Sacco sector

The Respondents were required to disclose the period they had served in their organizations.
Table 4.3 Length of Service in the Sacco sector

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>47</td>
<td>45.2</td>
<td>45.2</td>
</tr>
<tr>
<td>4-7</td>
<td>22</td>
<td>21.4</td>
<td>66.7</td>
</tr>
<tr>
<td>8-11</td>
<td>15</td>
<td>14.3</td>
<td>81.0</td>
</tr>
<tr>
<td>12 and above</td>
<td>20</td>
<td>19.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

According to the research results, it was established that the respondents who had served in the Sacco sector for a period between 0-3 years were 45.2%. The respondents who had served in the Sacco sector for a period between 4-7 years were 21.4%. The respondents who had served in the Sacco sector for a period between 8-11 years were 14.3%. The respondents who had been in the Sacco sector for more than 12 years were 19.0%. This demonstrates that a number of respondents possessed the requisite experience in Sacco industry to make meaningful contributions to this study.

4.3 The Effect of Risk Based Internal Auditing on Operational Efficiency of Deposit Taking Saccos in Nairobi County

The main aim of the research is to examine the influence of risk based internal auditing on operational efficiency in deposit taking Saccos in Nairobi County. To deliver on the main aim of the research, this section discusses the findings on the specific objectives which are to evaluate the influence of risk assessment, yearly risk-based planning,
internal audit capacity and internal audit standards with information technology as the control variable on operational efficiency in deposit taking Saccos in Nairobi County.

### 4.3.1 Influence of Risk Assessment on Operational Efficiency

The purpose of the research was to ascertain the influence of risk assessment on operational efficiency using Likert Scale where 5. very great extent 4. great extent 3. Moderate extent 2. Little extent and 1. is Not at all.

**Table 4.4 Influence of risk assessment on operational efficiency**

<table>
<thead>
<tr>
<th>Risk assessment</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of internal processes risks is done</td>
<td>3.46</td>
<td>0.914</td>
</tr>
<tr>
<td>Disclosures about financial risk is done</td>
<td>3.1</td>
<td>1.022</td>
</tr>
<tr>
<td>Risk identification is carried out for the entire SACCO</td>
<td>3.82</td>
<td>0.898</td>
</tr>
<tr>
<td>Disclosures about technology risk is done</td>
<td>3.79</td>
<td>0.79</td>
</tr>
<tr>
<td>Risk assessment is undertaken regularly by your SACCO</td>
<td>3.53</td>
<td>0.969</td>
</tr>
<tr>
<td>Risk monitoring is carried out to identify emerging risks and errors in financial reporting</td>
<td>4.08</td>
<td>0.731</td>
</tr>
<tr>
<td>Change management risk and risk controlling is done</td>
<td>3.65</td>
<td>0.825</td>
</tr>
<tr>
<td>Revelations regarding conformity risk and risk controlling is done</td>
<td>3.65</td>
<td>0.825</td>
</tr>
<tr>
<td>Risk registers are updated regularly</td>
<td>3.46</td>
<td>0.914</td>
</tr>
<tr>
<td>Revelations regarding environmental and safety risk and risk controlling is done</td>
<td>3.39</td>
<td>0.821</td>
</tr>
<tr>
<td>The SACCO mitigates the impact of risks by taking insurance</td>
<td>4.08</td>
<td>0.731</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>3.64</strong></td>
<td><strong>0.86</strong></td>
</tr>
</tbody>
</table>

The findings indicate that to a great extent identification of internal processes risks is done as pointed out by the mean of 3.46 and a small standard deviation of 0.914. To a great extent Disclosures about financial risk is done as pointed out by the mean of 3.1 and a small standard deviation of 1.022.
To a great extent Risk identification is carried out for the entire SACCO as pointed out by the mean of 3.82 and a small standard deviation of 0.898. To a great extent Disclosures about technology risk is done as pointed out by the mean of 3.79 with a small standard deviation of 0.79.

To a great extent Risk assessment is undertaken regularly by your SACCO as pointed out by the mean of 3.53 with a small standard deviation of 0.969. To a great extent Risk monitoring is carried out to identify emerging risks and errors in financial reporting as shown out by the mean of 4.08 with a small standard deviation of 0.731. To a great extent Change management risk and risk management is done as pointed out by the mean of 3.65 with a small standard deviation of 0.825.

To a great extent Disclosures about risk management and compliance risk is done as pointed out by the mean of 3.65 and a small standard deviation of 0.825. Risk registers are updated regularly shown out by the mean of 3.46 and a small standard deviation of 0.914. Revelations regarding environmental and safety risk and risk controlling is done pointed out by the mean of 3.39 with a small standard deviation of 0.821. The SACCO mitigates the impact of risks by taking insurance shown out by a mean of 4.08 with a small standard deviation of 0.731.

4.3.2 Influence of Annual Risk-Based Planning on Operational Efficiency
The study sought to explore the influence of Sacco's annual risk-based planning on operational efficiency using Likert Scale where 5. very great extent 4. great extent 3. Moderate extent 2. Little extent and 1. is Not at all.
Table 4.5 Effect of annual risk based planning on operational efficiency

<table>
<thead>
<tr>
<th>Annual risk-based planning</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk based audit planning is practiced enhancing transparency and accountability</td>
<td>4.12</td>
<td>0.731</td>
</tr>
<tr>
<td>There are annual plans and programs for individual risk-based audit assignments</td>
<td>3.69</td>
<td>0.825</td>
</tr>
<tr>
<td>Risk based audit annual plans are discussed with the management</td>
<td>3.69</td>
<td>0.825</td>
</tr>
<tr>
<td>Risk based audit reporting time is defined</td>
<td>3.5</td>
<td>0.914</td>
</tr>
<tr>
<td>Mean</td>
<td>3.75</td>
<td>0.82</td>
</tr>
</tbody>
</table>

The findings indicate that to a great extent risk-based audit planning is practiced for purposes of enhancing transparency and accountability as pointed out by the mean of 4.12 and a small standard deviation of 0.731. There are annual initiatives for particular risk-based audit tasks as pointed out by the mean of 3.69 with a small standard deviation of 0.825. Risk based audit annual plans are discussed with the management as pointed out by the mean of 3.69 with a small standard deviation of 0.825. Risk based audit reporting time is defined as pointed out by the mean of 3.5 with a small standard deviation of 0.914.

4.3.3 Influence of Internal Audit Capacity on Operational Efficiency

The research similarly aimed to assess the effect of firm internal audit capacity on operational efficiency using Likert Scale where 5. very great extent 4. great extent 3. Moderate extent 2. Little extent 1. is Not at all.
Table 4.6 Effect of internal audit capacity on operational efficiency

<table>
<thead>
<tr>
<th>Internal audit capacity</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is adequate technical and professional skills/competence of the SACCOs internal auditors</td>
<td>3.74</td>
<td>0.754</td>
</tr>
<tr>
<td>The internal auditors are trained on risk based internal auditing</td>
<td>3.57</td>
<td>0.969</td>
</tr>
<tr>
<td>There is computerized assisted audit tools for use by internal auditors</td>
<td>3.55</td>
<td>0.833</td>
</tr>
<tr>
<td>There is quality criteria to measure internal auditors’ performance</td>
<td>3.47</td>
<td>0.734</td>
</tr>
<tr>
<td>There are quality risk-based audit reports</td>
<td>3.7</td>
<td>0.356</td>
</tr>
<tr>
<td>Mean</td>
<td>3.606</td>
<td>0.7292</td>
</tr>
</tbody>
</table>

The findings indicate that to a great extent there is adequate technical and professional skills/competence of the SACCOs internal auditors as pointed out by the mean of 3.74 with a small standard deviation of 0.754. To a great extent the internal auditors are trained on risk based internal auditing as pointed out by the mean of 3.57 with a small standard deviation of 0.969. To a great extent there is computerized assisted audit tools for use by internal auditors as pointed out by the mean of 3.55 with a small standard deviation of 0.833. To a great extent there is quality criteria to measure internal auditors’ performance as pointed out by the mean of 3.47 with a small standard deviation of 0.734. To a great extent there are quality risk-based audit reports as shown by the mean of 3.7 with a small standard deviation of 0.356.
4.3.4 The Influence of Internal Audit Standards on Operational Efficiency

The researcher also aimed at finding out the influence of internal audit standards on operational efficiency Likert Scale where 5. very great extent 4. great extent 3. Moderate extent 2. Little extent and 1. is Not at all.

Table 4.7 Influence of internal audit standards on operational efficiency

<table>
<thead>
<tr>
<th>Internal audit standards</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is use of International Auditing standards (IAS) and International Professional Practice Framework (IPPF) for internal auditors to guide the internal audits</td>
<td>3.81</td>
<td>0.912</td>
</tr>
<tr>
<td>There is compliance with accepted audit standards and ethics</td>
<td>3.64</td>
<td>0.914</td>
</tr>
<tr>
<td>Transparency in audit reporting is adhered to</td>
<td>3.28</td>
<td>1.022</td>
</tr>
<tr>
<td>There are Independent Directors</td>
<td>3.28</td>
<td>1.012</td>
</tr>
<tr>
<td>Audit planning is undertaken</td>
<td>2.95</td>
<td>1.061</td>
</tr>
<tr>
<td>Internal audit staff are effective</td>
<td>3.9</td>
<td>0.715</td>
</tr>
<tr>
<td>Management has ownership interest</td>
<td>3.81</td>
<td>0.912</td>
</tr>
<tr>
<td>Internal audit reporting channels are defined</td>
<td>3.76</td>
<td>0.889</td>
</tr>
<tr>
<td>Mean</td>
<td>3.55</td>
<td>0.93</td>
</tr>
</tbody>
</table>

The findings indicate that to a great extent there is use of International Auditing standards (IAS) and International Professional Practice Framework (IPPF) for internal auditors to guide the internal audits as pointed out by the mean of 3.81 with a small standard deviation of 0.912. To a great extent there is compliance with accepted audit standards and ethics as pointed out by the mean of 3.64 with a small standard deviation of 0.914.
To a great extent transparency in audit reporting is adhered to as pointed out by the mean of 3.28 with a small standard deviation of 1.022

To a great extent there are Independent Directors as pointed out by the mean of 3.28 with a small standard deviation of 1.012. To a great extent audit planning is undertaken as pointed out by the mean of 2.95 with a small standard deviation of 1.061. To a great extent internal audit staff are effective as shown by the mean of 3.9 with a small standard deviation of 0.715. To a great extent management has ownership interest as shown by the mean of 3.81 and a small standard deviation of 0.912. To a great extent internal audit reporting channels are defined as pointed out by the mean of 3.76 with a small standard deviation of 0.889.

4.4 Impact of Risk Based Internal Auditing on Operational Efficiency

The researcher also aimed at finding out the impact of risk based internal auditing on operational efficiency using Likert Scale where 5. Strongly agree 4. Agree 3. Neither agree, nor disagree 2. Disagree and 1. is strongly disagree.
Table 4.8 Impact of Risk based internal auditing on operational efficiency

<table>
<thead>
<tr>
<th>Effect of RBIA on operational efficiency</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There has been an improvement in information accuracy and in innovativeness due to firms risk based internal auditing</td>
<td>3.88</td>
<td>0.67</td>
</tr>
<tr>
<td>The SACCO is able to configure better its resources altering its existing capabilities and generating new ones</td>
<td>3.69</td>
<td>0.715</td>
</tr>
<tr>
<td>The SACCO has been able to generate better returns from its operations due to improved innovation capacity</td>
<td>3.6</td>
<td>0.912</td>
</tr>
<tr>
<td>The SACCO is able to sense internal auditing capacity markets in the future and develop internal auditing capacity to meet the demand</td>
<td>3.55</td>
<td>0.889</td>
</tr>
<tr>
<td>Repeated exchanges within the alliance has built trust and improved both the stability of relationships and knowledge sharing</td>
<td>3</td>
<td>1.126</td>
</tr>
<tr>
<td>There has been reduction of conflict among the Sacco firms due to the partnership leading to knowledge</td>
<td>3</td>
<td>1.082</td>
</tr>
</tbody>
</table>

The findings indicate that they strongly agree there has been an improvement in information accuracy and in innovativeness due to Saccos risk based internal auditing as pointed out by the mean of 3.88 with a small standard deviation of 0.67. The findings indicate that they strongly agree Saccos are able to configure better their resources thus altering their existing capabilities and generating new ones as pointed out by the mean of 3.69 with a small standard deviation of 0.715. The findings indicate that they strongly agree Saccos have been able to generate better returns from its operations due to improved innovation capacity as pointed out by the mean of 3.6 with a small standard deviation of 0.912.
The findings indicate to a great extent deposit taking Saccos are able to sense internal auditing capacity markets in the future and develop internal auditing capacity to meet the demand indicated by the mean of 3.55 with a small standard deviation of 0.889. The findings indicate that to a moderate extent repeated exchanges within the alliance has built trust and improved both the stability of relationships and knowledge sharing pointed out by the mean of 3 with a small standard deviation of 1.126. The findings indicate that to a moderate extent there has been reduction of conflict among the Sacco firms due to the partnership leading to knowledge pointed out by the mean of 3 with a small standard deviation of 1.082.

4.5 Regression Analysis/Analysis of Hypothesis

A regression model was utilized to measure the associations between variables under investigation. The dependent variable is the operational efficiency whereas the independent is the risk based internal auditing measured in terms of variables of risk assessment, internal audit capacity, annual risk-based planning and internal auditing standards. The link between the independent and dependent variables was analyzed using analytical model. The level to which dependent variable changes could be influenced by the independent variable change is explained by co-efficient of determination. The proportion of deviation in the dependent variable is described with the four independent variables. In order to code, enter as well as calculate the extents of the multiple regressions the researcher utilized statistical package for social sciences (SPSS V 22.0).
Table 4.9 Model Summary

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

The frequently adopted statistic to assess model fit is R-Square. 1 less the ratio of residual variability is R-square. The proportion of the variance in the dependent variable described distinctively or mutually by the independent variables is the adjusted $R^2$, also called the coefficient of determinations. The combined effect of the predictor variables could attribute to 18.4 % of changes in operational efficiencies in the deposit taking SACCOs.

Table 4.10 Summary of One-Way ANOVA

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5</td>
<td>0.001426</td>
<td>0.000285</td>
<td>4.3795626</td>
<td>0.001227</td>
</tr>
<tr>
<td>Residual</td>
<td>97</td>
<td>0.006318</td>
<td>0.000065</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>0.007744</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The research utilized One-way ANOVA to establish the significance of the regression model from which a 0.001227 probability value was determined. This indicates that the regression link was highly substantial in calculating the manner in which the independent variables (risk based internal auditing) affect operational efficiency in Deposit taking Saccos in Nairobi County. The F determined at 5% level of significance was 4.3795. Since F is higher than the F critical, this shows that the whole model was substantial.
Table 4.11 Regression Coefficients results

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.38826</td>
<td>0.08592</td>
<td>4.51896</td>
<td>0.00002</td>
<td>0.21774</td>
<td>0.55879</td>
</tr>
<tr>
<td>Risk Assessment</td>
<td>0.06415</td>
<td>0.01666</td>
<td>-3.84990</td>
<td>0.00021</td>
<td>-0.09722</td>
<td>-0.03108</td>
</tr>
<tr>
<td>Risk Based Planning</td>
<td>0.00332</td>
<td>0.00279</td>
<td>-1.18898</td>
<td>0.23735</td>
<td>-0.00887</td>
<td>0.00222</td>
</tr>
<tr>
<td>Internal Audit Capacity</td>
<td>0.00211</td>
<td>0.00351</td>
<td>-0.60166</td>
<td>0.54880</td>
<td>-0.00887</td>
<td>0.00222</td>
</tr>
<tr>
<td>Internal Auditing Standards</td>
<td>0.00180</td>
<td>0.00487</td>
<td>0.36992</td>
<td>0.71225</td>
<td>-0.00786</td>
<td>0.01146</td>
</tr>
<tr>
<td>Information technology</td>
<td>0.00269</td>
<td>0.00259</td>
<td>-1.03929</td>
<td>0.30125</td>
<td>-0.00783</td>
<td>0.00245</td>
</tr>
</tbody>
</table>

The coefficient in Table 4.11 indicate holding all other factors constant (no influence of the predictor variables) operational efficiency would be at 0.38826. A unit rise in risk assessment implementation would result to a rise in operational efficiency by 0.06415. A unit increase in firm annual risk-based planning, would result to a reduction in operational efficiency by 0.00332. A unit rise in firm internal audit capacity would result to an increase in operational efficiency by 0.00211. A unit rise in good internal audit principles would lead to rise in operational efficiency by 0.00180. A unit rise in information technology would lead to rise in operational efficiency by 0.00269.

4.6 Interpretation of the Findings

The regression model above reveals the findings of the research. The research ascertained that risk based internal auditing positively enhance the operational efficiencies for Deposit taking Saccos in Nairobi County. The independent variables that were investigated describe a significant 18.4 % of operational efficiency as denoted by adjusted R2 (0.184). This therefore means that the independent variables contribute
18.4% of the improvement in operational efficiencies while other aspects as well as random variations not investigated constitute 81.6%. The results of this research is in line with the findings of Mwangi (2008) who studied the effect of risk based internal auditing on operational efficiency and performance of independent oil companies in Kenya.

The study findings are in line with the findings of Maiteka (2010) Ming and Mei (2008) who conducted a study on the factors that determine the demands for risk-based audit by evaluating the role of internal controls, risk management, internal auditors’ technical proficiency and corporate governance in the Taiwanese Banks. The study findings indicated that banks risk management framework is greatly linked with the role played by the internal audit and thus concluded there is significant positive relationship between RBIA and operational efficiency
CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSION AND
RECOMMENDATIONS

5.1 Introduction

This part illustrates a summary of findings, conclusions, and recommendations. The findings are summarized according to the study objectives which was to establish the effect of risk based internal auditing on operational efficiency in Deposit taking Saccos in Nairobi County. The findings have been discussed relative to the questionnaire aspects which were on; demographic data on the respondent the aspects of the predictor variables and how it influences operational efficiency in Deposit taking Saccos in Nairobi County.

5.2 Summary of Findings

The aim of the of the research was to explore whether operational efficiency of Deposit taking Saccos in Nairobi County is affected by risk based internal auditing practices. The research design was a descriptive. The study population consisted of all the Deposit taking Saccos in Nairobi. According to Sacco Societies Regulatory Authority (SASRA), as at the end of year 2017, there were 42 Deposit taking Saccos in Nairobi County (Appendix III). Primary data was collected by use of Semi-structured research questionnaire. The research was a census study owing to the small number of respondents from target population whose responses are vital in this study.
The demographic data obtained from individual respondents and their background was examined. Doing this enabled the researcher to comprehend the respondents setting and their capability to provide useful data. The results were presented according to the demographics and the research questions. The general information sought from the respondents included their age, level of education, the length of time they had worked for the Sacco sector and the estimated total staff in the company.

The study targeted a total of 126 Respondents who constituted of finance managers, internal auditors and chief executive officers of the Deposit taking Saccos in Nairobi County. Out of these, 103 respondents could be reached and completed the questionnaires while the rest were not available to fill the questionnaires, hence the response rate of the study at 82%. Mugenda and Mugenda (2009) indicated that a response percentage of more than 70%, is considered good enough for examination and reporting.

The age of the respondents was sought by the researcher. The findings indicate that 45.2 percent of the respondents age ranged between 29 and 39 years. 40.5 percentage age ranged between 40-50 years while 7.1% of the respondents were aged below 29 and another 7.1 percent aged below 29 years. This shows that majority of the officers who responded is 85% were neither too young nor too old and therefore represent vibrant and experienced population whose experiences and responses can be relied upon.

The Respondents were required to state their highest education level. 45 % of the respondents were holders of master’s degree while 4.8 % where holders of Doctoral level qualification PhD.4.8% were holders of post graduate diploma while 11.9 % where
holders of post graduate diplomas. 38 percent of the respondents were holders of a first degree only. This implies that most of the respondents had the requisite educational qualifications to make meaningful contributions to this study.

The Respondents were required by the study to disclose the duration they had served in their organizations. According to the research findings, it was established that the respondents who had served in the Sacco sector for a period between 0-3 years were 45.2%. The respondents who had served in the Sacco sector for a period between 4-7 years were 21.4%. The respondents who had served in the Sacco sector for a period between 8-11 years were 14.3%. The respondents who had worked in the Sacco sector for more than 12 years were 19.0%. This is an indication that several respondents possessed the requisite experience in the Sacco industry to make meaningful contributions to this study.

The researcher sought to establish the number of staff in each of the respondent organizations. The objective was to find out the size of the organization and if they were large enough to make meaningful contributions to this study. The finding indicates that 50.0 percent of the respondent organizations have employee population size of between 1-300 employees. 47.6 percent of the respondent organizations have employee population size of between 101-300 employees. 2.4 percent of the respondent organizations have employee population size of between 301-500 employees. This implies that most the respondent organizations were large enough to be considered relevant to this study meaningful contributions to this study.
The major aim of the research is to examine the influence of risk based internal auditing on operational efficiency in deposit taking Saccos in Nairobi County. To deliver on the major aim of the research, the research evaluated the influence of risk assessment, yearly risk-based planning, internal audit capacity, and internal audit standards on operational efficiency in deposit taking Saccos in Nairobi County.

A regression model was applied to determine the link between the study variables. The dependent variable is the operational efficiency while the independent is the risk based internal auditing measured in terms of variables are risk assessment, internal audit capacity, annual risk based planning and internal auditing standards. 48.7% of sources of operational efficiencies in the Sacco industry could be due to the joint influence of the predictor variables.

The research utilized One-way ANOVA to establish the significance of the regression model from which a 0.001227 probability value was determined. This indicates that the regression link was highly substantial in calculating the manner in which the independent variables (risk based internal auditing) affect operational efficiency in Deposit taking Saccos in Nairobi County. The F determined at 5% significance level was 4.3796 as F is higher than the F critical, this is an indication that the whole model was substantial.

The coefficient in Table 4.11 indicate holding all other factors constant (no influence of the predictor variables) operational efficiency would be at 0.38826. A unit rise in risk assessment implementation would result to a rise in operational efficiency by 0.06415. A unit increase in firm annual risk-based planning, would result to an increase in
operational efficiency by 0.00332. A unit rise in firm internal audit capacity result to an increase in operational efficiency by 0.00211. A unit rise in good internal audit principles would result to enhanced performance by 0.0180.

From the above regression model, the study found out that risk based internal auditing positively enhance the operational efficiencies for Deposit taking Saccos in Nairobi County. The independent variables that were investigated illustrate a significant 18.4% of operational efficiency as denoted by adjusted R2 (0.184). This therefore means that the independent variables contribute 18.4% of the operational efficiencies while other aspects as well as random variations not investigated in this study constitute 81.6%.

5.3 Conclusion
The study sought to explore the effect of risk based internal auditing on operational efficiency in the Deposit taking Saccos in Nairobi County. Based on the findings regarding specific objective, the research ascertained that organizational risk based internal auditing positively enhance organization operational efficiency. Based on the findings regarding specific objective, the research determined that organizational risk based internal auditing positively influence organization operational efficiency through increased organization profitability, business turnover and volumes of sale.

5.4 Recommendations
The research recommends that organizations should seek to acquire operational efficiencies so as to improve organizational performance through increasing customer base, asset quality, quality of service and increased market share.
The study recommends that organizations should focus on adopting organizational risk based internal auditing so as to enhance organizational performance through increasing customer base, asset quality, quality of service and increased market share. Since the risk management framework for financial institutions is greatly linked with the role played by the internal audit the study recommends that there is need to strengthen the organizations internal processes in particular internal controls, risk management, internal auditors’ technical proficiency and corporate governance. There is also need to create awareness to the senior management and board on the importance of providing support towards risk management efforts to revamp the function. This is because a lot of companies’ risk management activities are restricted to risk evaluations and assessments with other roles of risk being pursued by internal audit. Internal audit practices should therefore be adopted by the organization to ensure successful implementation.

Risk assessment phase is the most important step involved in the execution of risk based internal audit methodology. Although risk assessment and internal audit activities have previously been considered as two separate and independent concepts that view is nowadays changing, the two activities levels of interaction have increased and depend on each other’s process outcomes. factors such as annual risk-based audit planning, audit capacity, risk management and audit standards practiced by internal audit should be adopted in organizations for purposes of enhancing the integrity of the organization and securing the performance of the organization. The researcher used descriptive survey research design with a view of gaining information that describes current phenomena.
The findings of this research indicate that as operational efficiency is enhanced by adoption of risk assessment, risk-based audit planning, audit capacity and auditing standards. The study therefore recommends adoption of such practices. Objective reporting and adherence to internal audit practices has considerable positive impacts on the financial performance. From the findings of this study we acknowledge that the findings indicated that financial institutions encounter high risks in their operations. Mitigation measures should therefore be sought to ensure seamless continuity of the business with rapidly changing technological environment. To enhance DTS operations efficiency; risk based internal audit practices should be adopted which helps in detecting risks on time so that organizations can concentrate on areas rated high in risks which hence increased accountability and transparency.

Risk management, risk-based audit planning and auditors’ competence have consistently improved the financial performance in financial institutions. Management of risks should therefore be taken seriously since it has a positive influence performance to a very great extent. Implementation of audit recommendation is still the prerogative of management and should be undertaken on a timely manner to enhance the financial reporting.

There are risk management procedures and policies instituted by SACCOs which entails having the investment diversification policy across various sectors, ensuring good corporate governance, regulating financial management, conforming with internal financial standards, establishing risk management team, having internal audit, and taking legal action on defaulters. The study therefore recommends that maturity of risk management processes should be practiced for purposes of achieving sustainable
improvements in firm’s performance as the efficiency of risk management is expected to significantly influence its financial performance, risk management practices, techniques, policies and procedures should be practiced consistently to monitors and assesses the organization risks.

5.5 Limitations of the Study

The study’s limitations comprised limited time set aside for the research and the limited scope of study. Securing face to face interviews was a challenge due to the senior managers’ busy schedules and the limited stipulated time to carry out the research. To counter this, appointments had sought and scheduled, sometimes outside the official working hours. There were challenges in getting information from the respondents whom the researcher approached due to the fear that information sought would be used in a print hence give a negative image of the institutions or personally intimidate them. To counter this problem, the researcher carried introduction letter from the university and guaranteed them the material collected would be regarded with utmost care, confidential and will be utilized only for academic purpose.

5.6 Suggestions for Further Research

The study suggests further survey to study Competitive strategies and performance in other industries. This research should be replicated in other sectors in order to establish whether there is consistency among them on the sources of operational efficiencies for organizations. The study will supplement the findings of this study by providing information on the strength and weaknesses experienced in the implementation of competitive strategies.
Additionally, further research should be done on the factors affecting strategy implementation and impact on operational efficiencies by focusing on other sectors other than Sacco industry in order to depict reliable information that illustrates real situation in across all sectors.

The study suggests further survey on study Organizational risk based internal auditing and performance in other industries. This research should be replicated in other industries in order to establish whether there is variation in response. Further research should be done on the factors that affect strategy change and impact on organizational operational efficiencies with a focus on other sectors than Sacco industry, so as to have an all-encompassing research that provides a bigger picture of actual situations.
REFERENCES


KPMG. (2007). *The evolving role of internal auditor: value creation and preservation From an internal audit perspective*. KPMG USA.


SASRA Website: www.sasra.org.ke


Vong, A. & Hoi, S. (2009). *Determinants of banks profitability in Macao,* Faculty of Business Administration, University of Macao.


APPENDIX I: LETTER OF INTRODUCTION

TO WHOM IT MAY CONCERN

The bearer of this letter is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

PROF. JAMES M. NJIHIA
DEAN, SCHOOL OF BUSINESS
APPENDIX II: QUESTIONNAIRE

This questionnaire is prepared for the purpose of collecting data for Research Project in partial fulfilment of the requirement for an award of master of business administration degree and therefore all information will be handled confidentially.

1. What is the name of your SACCO? .............................................

2. What is your gender?
   Male ( ) Female ( )

3. What is your age?
   18-28 years ( ) 29-39 years ( )
   40-50 years ( ) 51-60 years ( )

4. What is your highest level of education?
   Degree ( ) Post graduate diploma ( )
   Masters ( ) Doctorate ( )

5. Years worked in the SACCO industry
   0 – 3 years ( ) 4 – 7 years ( )
   8 – 11 years () 12 and above years ( )

6. Please indicate the number of employees in your SACCO..................

7. Please indicate in the table below, the extent to which the following factors are applicable for Risk assessment to your SACCO.
Use a scale of 1 to 5 where: 1 = No extent at all; 2 = Little extent; 3 = Moderate extent; 4 = Great extent; 5 = Very great extent

<table>
<thead>
<tr>
<th>Risk assessment</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of internal processes risks is done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclosures about financial risk is done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk identification is carried out for the entire SACCO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclosures about technology risk is done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk assessment is undertaken regularly by your SACCO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is consideration of risk assessment in the detection of errors in the SACCO.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk monitoring is carried out to identify emerging risks and errors in financial reporting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change management risk and risk management is done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclosures about compliance risk and risk management is done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk registers are updated regularly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclosures about environmental and safety risk and risk management is done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SACCO mitigates the impact of risks by taking Sacco</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Please indicate in the table below, the extent to which the following Internal Audit Risk Based Planning are applicable to your SACCO.
Use a scale of 1 to 5 where: 1 = No significance at all; 2 = Little significance; 3 = Moderate significance; 4 = Great significance; 5 = Very great significance

<table>
<thead>
<tr>
<th>Annual Risk Based Audit Planning</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk based audit planning is practiced to enhance transparency and accountability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are annual plans and programs for individual risk based audit assignments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk based audit annual plans are discussed with the management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk based audit reporting time is defined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Please indicate in the table below, the extent to which the following internal audit capacity are applicable to your SACCO.

Use a scale of 1 to 5 where: 1 = No extent at all; 2 = Little extent; 3 = Moderate extent; 4 = Great extent; 5 = Very great extent

<table>
<thead>
<tr>
<th>Internal Audit Capacity</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is adequate technical and professional skills/competence of the SACCOs internal auditors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The internal auditors are trained on risk based internal auditing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is computerized assisted audit tools for use by internal auditors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There is quality criteria to measure internal auditors performance

There are quality risk based audit reports

10. Please indicate in the table below, the extent to which the following internal audit standards are applicable to your SACCO.

Use a scale of 1 to 5 where: 1 = No extent at all; 2 = Little extent; 3 = Moderate extent; 4 = Great extent; 5 = Very great extent

<table>
<thead>
<tr>
<th>Internal audit standards</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is use of International Auditing standards (IAS) and International Professional Practice Framework (IPPF) for internal auditors to guide the internal audits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is compliance with accepted audit standards and ethics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparency in audit reporting is adhered to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are Independent Directors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit planning is undertaken</td>
<td></td>
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<td>Internal audit staff are effective</td>
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<td>Management has ownership interest</td>
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<tr>
<td>Internal audit reporting channels are defined</td>
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</table>

11. Please indicate in the table below, the extent to which you agree on the impact of risk based internal auditing on operational efficiency of your SACCO.
Use a scale of 1 to 5 where: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree, nor disagree; 4 = Agree; 5 = Strongly agree

<table>
<thead>
<tr>
<th>The impact of risk based internal auditing on operational efficiency</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>There has been an improvement in information accuracy and innovativeness due to SACCOs risk based internal auditing</td>
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<td>The SACCO is able to configure better its resources altering its existing capabilities and generating new ones</td>
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<td>The SACCO has been able to generate better returns from its operations due to improved innovation capacity</td>
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<td>The SACCO is able to sense internal auditing capacity markets in the future and develop internal auditing capacity to meet the demand</td>
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<td>Repeated exchanges within the alliance has built trust and improved both the stability of relationships and knowledge sharing</td>
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<td>There has been reduction of conflict among the SACCOs due to the partnerships leading to knowledge</td>
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</tbody>
</table>

THANK YOU FOR PARTICIPATING
APPENDIX III: LIST OF DTS IN NAIROBI COUNTY

Afya Sacco Society Limited
Airports Sacco Society Limited
Ardhi Sacco Society Limited
Asili Sacco Society Limited
Chai Sacco Society Limited
Chuna Sacco Society Limited
Comoco Sacco Society Limited
Elimu Sacco Society Limited
Harambee Sacco Society Limited
Hazina Sacco Society Limited
Jamii Sacco Society Limited
Kenpipe Sacco Society Limited
Kenversity Sacco Society Limited
Kenya Bankers Sacco Society Limited
Kenya Police Sacco Society Limited
Magereza Sacco Society Limited
Maisha Bora Sacco Society Limited
Metropolitan National Sacco Society Limited
Miliki Sacco Society Limited
Mwalimu National Sacco Society Limited
Mwito Sacco Society Limited
Nacico Sacco Society Limited
Nafaka Sacco Society Limited
NSSF Sacco Society Limited
Nation Sacco Society Limited
Nyati Sacco Society Limited
Safaricom Sacco Society Limited
Sheria Sacco Society Limited
Shoppers Sacco Society Limited
Shirika Sacco Society Limited
Stima Sacco Society Limited
Taqwa Sacco Society Limited
Telepost Sacco Society Limited
Tembo Sacco Society Limited
Ufanisi Sacco Society Limited
Ukristo Na Ufanisi Wa Anglicana Sacco Society Limited
Ukulima Sacco Society Limited
Unaitas Sacco Society Limited
UN-Sacco Society Limited
Wana-anga Sacco Society Limited
Wanandege Sacco Society Limited
Waumini Sacco Society Limited