

**ANTECEDENTS OF INTERNAL AUDIT EFFECTIVENESS AMONG DEPOSIT
TAKING SACCOS IN WESTERN KENYA**

Achola John

**A Thesis Submitted in Partial Fulfillment of the Requirement for the Award of the
Degree of Master in Business Administration (Accounting Option) of Masinde
Muliro University of Science and Technology**

November, 2024

DECLARATION

I declare that this research project is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree or any other award.

Signature..... Date.....

Achola John

MBA/G/01-70655/2021

CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance of Masinde Muliro University of Science and Technology of a research project entitled “*Antecedents Of Internal Audit Effectiveness Among Deposit Taking Saccos In Western Kenya.*”

Dr. Maniagi Musiega Signature..... Date.....

Department of Accounting and Finance,

Masinde Muliro University of Science and Technology

Dr. Fredrick Kiongera Signature..... Date.....

Department of Business Administration and Management Science

Masinde Muliro University of Science and Technology.

DEDICATION

This thesis is dedicated to my family that has stood by me at all academic steps that has enabled this success.

ACKNOWLEDGEMENT

To God the Almighty for life and opportunity to carry out this research. Second to my supervisors Dr Maniagi Musiega and Dr Kiongera Fredrick for instrumental guidance that led to development of this thesis. I wish to acknowledge the support, encouragement, cooperation and the peace of mind that my family and especially my wife have given me. I acknowledge the technical guidance and constant positive competition from my classmates.

ABSTRACT

The recent failure of Savings and Credit Cooperative Organizations is alarming. Within the local context, the SACCOs Subsector has had controversies arising from financial audits. SASRA revoked a total of 7 operating licenses of SACCOS between 2014 and

2017. This study mainly examined the antecedents of internal audit effectiveness among DT Saccos in Western Kenya. Specifically it established the influence of management support, independence of internal audit, competence of internal audit and risk management of the internal audit on effectiveness of internal audit of Saccos in Western Kenya. The study theories founded theories are Resource Based View (RBV), contingency and agency theory. The study was conducted in Western Region, Kenya region comprising of counties of Kakamega, Vihiga, Busia and Bungoma. The study targeted 129 staffs thus internal auditors, accountants, finance officers and chief executive officers in all the 15 DT-SACCOS. Stratified random sampling was used to select 97 respondents from a target of 129. Self-administered questionnaire structured on 5-point Likert type scale will be used. Pilot test was done in 12 SACCOs which were not used in the final study. Cronbach Alpha technique tested reliability was employed. The study assessed two types of validity namely; construct and content validity. The data was tested for normality, multi-collinearity, and autocorrelation and homoscedastic test before regression. Data was analyzed through descriptive and inferential statistics. The study found that management support R^2 0.306; $P=0.006<0.05$, internal audit independence R^2 0.373; $P=0.001<0.05$, internal audit competency R^2 0.399; $P=0.025<0.05$ and Internal audit risk management R^2 0.563; $P=0.001<0.05$ had a statistical positive significant effect on internal audit effectiveness of Saccos in Western Kenya. The study recommended that the management should enhance their support by fostering open communication and collaboration between internal audit teams and management to ensure that audit findings are effectively communicated and addressed. The management of Sacco should develop and implement a formal internal audit charter to enhance internal audit independence. SACCO management needs to conduct a skills gap analysis so as to assess the current knowledge and skill level of the internal audit team. The management should encourage the adoption of continuous risk monitoring practices instead of traditional periodic assessments. The findings of the study are of importance to the managers, Sacco's members, and government and potential investors.

TABLE OF CONTENTS

DECLARATION	ii
CERTIFICATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	iv
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF FIGURES	xiii
ABBREVIATIONS AND ACRONYMS	xiv
OPERATIONAL DEFINITION OF TERMS	xv
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the Study	1
1.2. Statement of the Problem	10
1.3 Objectives of the Study	11
1.4 Research Hypotheses	11
1.5 Significance of the Study	12
1.6 Scope of the Study	14
1.7 Limitation of the Study	14
CHAPTER TWO	16
LITERATURE REVIEW	16
2.1 Introduction	16
2.2 Theoretical Review	16

2.2.1 Resource Based View Theory.....	16
2.2.2 Contingency Theory	18
2.2.3 The Agency Theory.....	20
2.3 Conceptual Review	22
2.3.1 Management support	22
2.3.2 Internal Audit Independence.....	27
2.3.3 Internal Audit Competence	31
2.3.4 Internal Risk Management.....	35
2.3.5 Internal Audit Effectiveness	40
2.4 Empirical Review.....	43
2.5 Research Gaps.....	57
2.6 Conceptual framework	69
CHAPTER THREE.....	70
RESEARCH METHODOLOGY	70
3.1 Introduction	70
3.2 Study Area	70
3.3 Research Design.....	70
3.4 Target Population.....	71
3.5 Sample Design and Sampling Procedure	72
3.6 Data Collection Instruments and Procedures.....	73
3.6.1 Data Type.....	73
3.6.2 Data Collection Instruments	73

3.6.3 Data Collection Procedures	74
3.7 Reliability and Validity of Instruments	74
3.7.1 Reliability of the Instruments.....	74
3.7.2 Validity of the Instrument.....	75
3.8 Data Analysis.....	75
3.8.1. Multiple Regression Model Assumptions	77
3.9 Ethical Consideration	78
CHAPTER FOUR	80
RESEARCH FINDINGS AND DISCUSSIONS	80
4.1 Introduction	80
4.2 Response Rate.....	80
4.3 Reliability and Validity Tests	81
4.3.1 Reliability Test.....	81
4.3.2 Validity Test.....	81
4.4 Descriptive Information on Demographics	85
4.5 Descriptive statistics.....	86
4.4.1 Management support and Internal audit effectiveness	87
4.4.2 Internal audit independence and Internal audit effectiveness	91
4.4.3 Internal audit competence.....	95
4.4.4 Internal audit risk management.....	99

Table 4. 9: Internal audit risk management	99
4.4.5 Internal audit effectiveness	102
4.6 Assumption of Linear Regression.....	105
4.6.1 Normality	106
4.6.2 Multi-Collinearity Test.....	110
4.7 Pearson Correlation Results.....	111
4.8 Simple Linear Regression.....	114
4.8.1 Influence of Management support on internal audit effectiveness of Saccos in Western Kenya.....	114
4.8.2 Influence of Internal audit independence on internal audit effectiveness	116
4.8.3 Influence of Internal audit competence on internal audit effectiveness of Saccos in Western Kenya.....	118
4.8.4 Influence of Internal audit risk management on internal audit effectiveness of Saccos in Western Kenya	121
4.9 Multiple Regression Analysis.....	123
4.10 Stepwise Regression.....	132
Table 4.22: Summary of Hypothesis Results	133
CHAPTER FIVE	135
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	135
5.1 Introduction	135
5.2 Summary of the Findings	135

5.2.1 Influence of Management support on internal audit effectiveness of Deposit Taking Saccos	136
5.2.2 Influence of Internal audit independence on internal audit effectiveness of Saccos in Western Kenya	137
5.2.3 Influence of Internal audit competence on internal audit effectiveness of Deposit Taking Saccos	138
5.2.4 Influence of Internal audit risk management on internal audit effectiveness of Saccos in Western Kenya	139
5.3 Conclusion	140
5.4 Recommendation	141
5.5 Suggestion for Further Studies	143
REFERENCES	144
APPENDICES.....	154
APPENDIX I: INTRODUCTORY LETTER	154
APPENDIX II: RESEARCH QUESTIONNAIRE	155
APPENDIX III: RESPONDENTS PER SACCO	162
APPENDIX IV: SACCOS PER COUNTY IN WESTERN KENYA AND THEIR CLASSIFICATION.....	163

LIST OF TABLES

Table 3. 1: Target Population.....	Error! Bookmark not defined.
Table 3. 2: Sample Size	73
Table 4. 1: Reliability.	81
Table 4. 2: KMO and Bartlett's Test.....	82
Table 4.3: Communalities	82
Table 4. 4: Component Matrix	84
Table 4.5: Descriptive Information on Demographics	85
Table 4.6: Management support	87
Table 4. 7: Internal audit independence	91
Table 4. 8: Internal audit competence.....	95
Table 4. 9: Internal audit risk management.....	99
Table 4.10: Internal audit effectiveness	102
Table 4.11: Kolmogorov-Smirnova and Shapiro-Wilk	106
Table 4. 12: Multi-Collinearity	111
Table 4. 13: Multiple Correlation Matrix	111
Table 4.14: Regression Results of Management support and Internal audit effectiveness	115
Table 4.15: Regression Results of Internal audit independence	117

Table 4.16: Internal audit competence and Internal audit effectiveness..... 119

Table 4.17: Regression Results of Internal audit risk management 121

Table 4. 18: Model Summary..... 123

Table 4. 19: Stepwise Regression..... 132

LIST OF FIGURES

Figure 2.1: Conceptual Framework	69
Figure 4. 1: Normal Q-Q plot of Management support	107
Figure 4. 2: Normal Q-Q plot of Internal audit independence	108
Figure 4. 3: Normal Q-Q plot of Internal audit competence.....	109
Figure 4. 4: Normal Q-Q plot of Internal audit risk management.....	109
Figure 4. 5: Normal Q-Q plot of Internal audit effectiveness	110

ABBREVIATIONS AND ACRONYMS

CEO	- Chief Executive Officer
GOK	- Government of Kenya
IIA	- Institute of Internal Auditors
KNAO	- Kenya National Audit Office
OECD	- Organization for Economic Co-operation and Development
PPF	- Professional Practice Framework
RMD	- Internal audit independence Department
SAS	- Statements of Auditing Standards
SPSS	- Statistical Package for Social Science

OPERATIONAL DEFINITION OF TERMS

Antecedents	Refer to the factors or conditions that precede or influence the effectiveness of the internal audit functionality within institutional framework based on internal audit competence, internal audit independence, internal audit independence, internal audit risk management and management support.
Audit Effectiveness	This is the extent to which internal audit operates effectively to attain its goals and supports the general leadership, risk assessment, and control procedures inside the financial company. Effectiveness of Internal Audit assessed through time based reporting, audit plan adherence, mitigation of risks, internal control detection and errors and fraud assessment .
Internal audit competence	Refers to the collective knowledge, skills, and capabilities possessed by the internal audit function among deposit taking Saccos. Internal Audit Competence examined through academic qualifications, auditing standards, experience of auditors, information technology techniques as well as forensic skills.

Internal audit independence	Refers to the autonomy and freedom of the internal audit function among deposit taking Saccos in Kenya to carry out its responsibilities objectively and without undue influence from management or other parties. Internal audit independence assessed through appointment process, scope, auditors remuneration, reporting level, unrestricted access to records and operating free from interference.
Internal audit risk management	Refers to the systematic processes and practices employed by the internal audit function among deposit taking Saccos to identify, assess, and respond to risks within the financial institution. Internal audit risk management assessed through identification of risks, assessment of risks risk mitigation planning and integration with audit planning.
Management support	Refers to the extent to which the leadership and management of these SACCOS actively endorse, facilitate, and participate in internal audit processes to enhance overall organizational performance and governance. Management Support was measured through allocation of resources, training and recruitment, implementation of recommendations and management commitment

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The modern business landscape is characterized by complexity, rapid changes, and an ever-growing emphasis on transparency and accountability. In this dynamic environment, organizations face numerous challenges, ranging from operational risks to compliance issues. To navigate these challenges successfully, businesses must have robust internal control mechanisms in practice and at the heart of these mechanisms lies the internal audit function (Nugroho, Uzliawati & Taqi, 2021). Organizational success is greatly impacted functionality of internal control performance; it's not just about compliance, though. Assessing and enhancing the efficacy of a company's leadership, risk assessment, and control procedures is the primary responsibility of the functionality of the internal audit. Internal audits aim to offer assurance and insights across a wider range of an organization's operations, in contrast to external audits that concentrate on internal audit independence. This includes assessing the efficiency of internal processes, identifying areas of potential risk with policies and regulations and assessing the reliability of financial information (Anh, Thi, Quang & Thi, 2020).

Due to the scarcity of resources, effective internal auditing has become an urgent issue for all organizations. Therefore, it is critical to employ those resources wisely. According to Mpakaniye (2022), internal auditing is seen as vital aspect of compliance and a useful tool

for accounting departments in their efforts to protect the assets of enterprises. In addition, as pointed out by Coetzee and Erasmus (2018), internal auditing is a crucial part of any company because of the need of knowing one's role, responsibilities, and contributions to both internal and external audits. The scope of internal auditing has beefed up to encompass increasingly important organizational responsibilities, such as management of risks and internal control involvement. According to Afzal (2023), firm executives are highly concerned about internal audit effectiveness in enhancing governance processes. Contingency theory explains the behaviors and operations of an organization and on this context auditor's independence and competence becomes an essential component in a firm. Furthermore risks of a firm are critical based on conflict arising from agency theory. Furthermore through resource based theory firms increase resources.

In the United States, the internal audit function is increasingly recognized as basic element of corporate leadership. Regulators have heightened value of internal audit, and organizations are investing more resources in this function. The dynamic nature of the U.S. business environment necessitates a comprehensive and agile approach to risk management, and functionality of internal audit as instrumental in ensuring that organizations can adapt to emerging risks effectively. In United States internal audit are often involved in assessing effectiveness of internal controls, management of risks and ethical practices for organizations by providing independent and subjective evaluations, internal auditing functions contribute to the establishment of a robust corporate governance framework, fostering trust among stakeholders (Al-Kake & Ahmed, 2019).

Internal audit effectiveness in the United Kingdom is a result of a comprehensive interplay of factors, including a robust regulatory framework, emphasis on corporate governance, proactive risk management, independence, technological integration, talent development, strategic alignment, and effective communication. These factors, exemplified by real-world instances, highlight the critical role of internal audit in ensuring accountability, mitigating risks, and supporting the overall achievement in the UK. Tesco, a leading UK retailer, faced an accounting scandal in 2014. The subsequent investigation revealed weaknesses in internal controls and governance. Tesco restructured its internal audit function, emphasizing independence and objectivity to prevent similar issues in the future (Mohapatra, 2021).

In Malaysia, events in the past few years have shown that internal auditing is still beset with problems that threaten its efficacy, even if internal auditing has advanced quickly in the past few years. Based on their findings, Mahmoud and Sulaiman concluded that independent internal audits are more successful (2018). On the other hand, audit effectiveness does not reveal the subjectivity of auditing. The efficacy of internal audits is said to be more closely related to management's backing of hiring and training competent and trained staff. The quality of the audit within the company has also been directly impacted by senior management (Lee, 2019).

On the African continent, there has also been some worry regarding internal auditing and effectiveness. According to Eshetu (2023), firms still face significant challenges with limited resources for internal audits, inadequate quality assurance, improvement initiatives, and external quality assurance. Concerning the usefulness of internal audit

functions, the study's participants were divided. Internal auditors are not well-respected because they do not have the necessary technical credentials. Management is often oblivious to the challenges faced by internal auditors. Efforts to bring South African internal audit methods in line with international norms have not been without their obstacles. Steinhoff International's internal audit function failed to identify and prevent accounting problems, which contributed to the company's bankruptcy in 2017. Due to shortcomings in detecting and resolving credit risk management issues, African Bank came dangerously close to collapse in 2014 (Dzomira, 2020).

Regarding internal auditing in Ghana, Alhassan, Erasmus, and Fred (2018) examined how respondents saw the influence of characteristics such as competency, size, relationships, necessary support from management for internal auditing functions, and the effectiveness of independent internal auditors. The study's findings indicate that the efficiency of internal audits is mostly linked to the level of assistance provided by management. The internal audit effectiveness relies on several factors, including the scale of the department, the expertise of auditors, the autonomy of the audit members and the collaboration.

The practice of internal audit in response to global standards has gained miles and the need for stronger corporate governance. In Uganda, the internal audit function has evolved alongside international best practices, aligning itself with frameworks such as the International Standards for IIA Standards. However, instances in Uganda have revealed inadequacies in this regard. For example, a major bank in Uganda faced severe regulatory penalties due to non-compliance with Know Your Customer (KYC) regulations. The

internal audit function failed to assess and address the deficiencies in the bank's customer identification procedures, leading to reputational damage and financial losses. The challenge lies in the complexity and frequent changes in regulatory frameworks. The internal audit functions in some financial institutions struggle to keep pace with these changes, resulting in non-compliance issues.

In Kenya, there has been considerable apprehension regarding the efficiency of internal auditing. The skill of internal audit groups in Kenyan government ministries had a substantial boost as a result of internal audit groups. The functionality of internal audits in Kenyan government agencies has been greatly affected (Maina, 2018). The individual conducted a study on the influence of support of management on the quality of audits, examined the effect of manager efficiency on audit efficiency and evaluated the impact of audit on firm effectiveness. Nevertheless, the research concluded that the primary factor of utmost significance was the staff's capability and leadership, closely followed by a supportive management.

The collapse of Imperial Bank Limited in 2015 serves as a glaring example of the ineffectiveness of internal audit functions in the Kenyan financial sector. The bank's internal auditors failed to detect fraudulent activities that led to a massive financial scandal. The inadequate risk assessment and lack of transparency of the internal audit functionality were evident in this case, highlighting systemic issues within the sector. In 2016, Chase Bank Kenya faced a crisis that resulted in its closure for a period. The failure of the internal audit function to identify and address liquidity and solvency issues played a significant role in the bank's downfall. The regulatory authorities later criticized the

bank's internal controls, shortcomings of internal auditing processes within the institution (Matheka, 2021).

Savings and credit co-operative societies (Saccos) have incurred a loss of Sh118.1 million over the previous two years due to fraudulent activities, primarily perpetrated by their own employees. This highlights the urgent requirement for strengthened mechanisms and insurance policies to safeguard the substantial funds of the members. The Sacco Societies Regulatory Authority (Sasra), responsible for supervising 359 Saccos, has revealed, for the first time, the occurrence of fraud in its latest supervision report. This study provides insights into the activities of these institutions, which held deposits amounting to Sh620.45 billion by the end of 2022. The loss was reported to SASRA's investigation unit, the Sacco Societies Fraud Investigations Unit, along with a probable loss of Sh114.4 million over the same time frame. The scammers are exploiting inadequate internal controls and mobile money services like M-Pesa to commit theft in an industry that is yet to establish an insurance system to safeguard depositors against such losses. According to the regulator, the cases indicate that the primary culprits behind the fraudulent actions are individuals who have positions within the Sacco organization (SASRA, 2023).

The Ukulima Sacco fraud scandal in 2019 is a glaring case of the ineffectiveness of internal audit functions in Kenyan DTS. The Sacco suffered significant financial losses due to fraudulent activities that went undetected by its internal audit function. The lack of independence and autonomy of audit team, coupled with inadequate risk assessment, allowed the fraud to persist for an extended period, resulting in severe financial repercussions for the Sacco and its members. In another case, Tower Sacco faced

challenges in its internal audit function when irregularities in the loan portfolio were discovered. The process failed to identify and address these irregularities promptly, leading to concerns about performance of the Sacco's management risk practices. This example underscores the value of an effective internal audit function for honesty of loan portfolios and protecting the financial well-being of Sacco members (SASRA, 2023).

Prior research has investigated antecedents of internal audits. According to Huy and Hung (2022) and Mwanza (2022), internal audit effectiveness is a contingent upon firm performance. The main function of an internal audit is to enable consulting and auditing service that is impartial and unbiased, with the intention of ensuring the completion of organizational tasks and generating additional value.

It is imperative to fortify internal auditing, risk management, and other controls of organizations (Faiteh & Aasri, 2022). The identification of potential hazards and the development of control and governance procedures are both facilitated by the practice of risk management, which is essential for the efficient conduct of internal auditing. In order to accomplish this, it is essential to have a team of experienced professionals, independence, and support from management (Choudhary & Trivedi, 2023). Internal audit can effectively reduce the adverse impact of larceny and wastage by public servants by aiding in the detection and prevention of fraud (Jeppesen, 2019).

Kukuiah (2019) examined factors that affect the efficacy of internal audits for Ghanaian public sector. The investigation demonstrated that the internal audit effectiveness in the public sector was significantly enhanced by the control environment and hence

independence and competency auditors. However, the efficacy of internal based auditors is not significantly enhanced by management's support. Ta and Doan (2022) investigated four factors that influence the efficacy of internal audit in based in Vietnam: Internally the autonomy of audit, the proficiency of auditors, the support from management for audit, and the quality of audit work. The results suggested that the efficacy of auditing internal was positively influenced by two criteria: the autonomy of the internal auditor and the support from management for internal audit. Nevertheless, the efficacy of internal auditing was not significantly affected by quality of their work or the competence of their auditors.

Solomon (2019) conducted an investigation into the aspects that influence the efficacy of auditing internally in Ethiopia's commercial private based banks. The study demonstrated robust positive correlations between competency of internal audit and audit effectiveness. However, the efficacy of internal audits is not significantly affected by the presence of an Organizational Setting and Management assistance.

Setyaningrum and Kuntadi (2019) investigated the impact of competence and independence on the effectiveness of internal audits. In a similar manner Abdullah and Mustafa (2020) discovered a lack of substantial independence of internal audit efficiency. While there have been some progress in financial state of deposit accepting SACCOs in Nairobi County, there is a lack of study on the efficiency of internal audits, which is not widely discussed. The majority of conducted research have primarily concentrated on the impact of internal audit on the performance of SACCOs. Empirical journals investigating

auditing in businesses have yielded varied results, with less or no major research available to definitively support the role of internal audits.

Kirui (2022) studied audit committee attributes on the efficacy of audits in the local government of Kericho, Kenya. In other sectors of the economy, including the financial sector, the study suggested that a comparable investigation could be conducted to investigate the association between audit features and audit efficacy. Gitonga (2021) examined the influence of internal audit features on the efficacy of audits in semi-autonomous government institutions in Kenya. It is advised that future research be conducted to identify additional variables that may impact the internal audits effectiveness in government organizations, as this research specifically examined the effects of audit independence and audit experience.

1.2. Statement of the Problem

The effectiveness of internal audit is crucial for growth of institutions as it contributes to enhancing performance, optimizing resources, and mitigating resource loss (Gitonga, 2021). The recent failure of SACCOs in Nairobi County is concerning (Gatimu, 2022). The primary causes of this include fraud, mismanagement, and unlawful activities, which have brought attention to concerns about the quality of audits by regulatory agencies (Serem, Fwamba, & Benedict, 2020). Within the local context, the SACCOs Subsector has had controversies arising from financial audits. According to Yegon (2021), SASRA revoked a total of 7 operating licenses of SACCOS between 2014 and 2017. The regulatory authority has declined the yearly financial reports of SACCOs such as Military, Idongali, Ainabkoi, and Moi University. The primary basis for this rejection is the SACCOs' failure to adhere to International Financial Regulation Standards (IFRS). In their study, Saputra, Winarningsih, and Puspitasari (2020) investigated and quantified the extent of influence exerted by several factors on the efficacy of public sector internal audit in Indonesia. Nevertheless, the backing of top leadership does not immediately exert success of internal audit. Nyaga, Kiragu, and Riro (2018) investigated the impact of internal audit independence on the efficacy of internal auditing in the government of Kirinyaga county, Kenya. The researcher recommends conducting additional studies that specifically investigate various variables that impact the performance of internal audits in the County. Hence, the research investigated the impact of management support, internal audit independence, internal audit competence, and internal audit risk management on the effectiveness of internal audits in Saccos located in Western Kenya.

1.3 Objectives of the Study

The main objective of the study was to examine antecedents of internal audit effectiveness among Deposit Taking Saccos in Western Kenya.

- i. To determine the influence of management support on internal audit effectiveness of Saccos in Western Kenya
- ii. To analyze the influence of internal audit independence on internal audit effectiveness of Saccos in Western Kenya
- iii. To analyze the influence of Internal audit competence on internal audit effectiveness of Saccos in Western Kenya
- iv. To analyze the influence of Internal audit risk management on internal audit effectiveness of Saccos in Western Kenya

1.4 Research Hypotheses

- i. H_{01} : Management support has no significant influence on internal audit effectiveness of Saccos in Western Kenya.
- ii. H_{02} : Internal audit independence has no significant influence on internal audit effectiveness of Saccos in Western Kenya
- iii. H_{03} : Internal audit competence has no significant influence on internal audit effectiveness of Saccos in Western Kenya

- iv. H₀₃: Internal audit risk management has no significant influence on internal audit effectiveness of Saccos in Western Kenya

1.5 Significance of the Study

1.5.1 Policy Markers

The policy-making parties have the opportunity to gain from this analysis. The recommendations provided at the end of this exercise will assist in facilitating the management's decision-making process regarding the desired qualities of auditors. Therefore, it would be beneficial for organizations, especially the Sacco, to encourage the necessary responsibility in financial audited reports.

The research effort would be deemed significant to the National government, particularly the State Department for Co-operatives and SASRA. The objective of the Authority is to protect its residents from egregious exploitation and unethical actions by individuals entrusted with the responsibility of generating financial reports. Typically, the authority is obligated to interfere occasionally to safeguard the rights and protection of purchasers. The research aims to enable the authority to identify successful enforcement of regulations in audit and identify deficiencies in external auditing systems. This will help develop solutions to improve the effectiveness of audits in SACCOS and meet public expectations.

1.5.2 Other Financial Institutions

This analysis would be highly significant to the directors of other financial institutions. Hence, by synthesizing a multitude of opinions and contributions from the respondents, their input would contribute to the understanding of the appropriate methods they deem suitable for selecting auditors who are tasked with producing substantial audit reports.

1.5.3 Sacco Management

The results would be beneficial to managers and accountants in the development of accounting procedures that are both consistent and precise, with the ultimate objective of ensuring their adoption by the industry. The study would provide critical information that would be going to help management to appreciate the challenges faced by internal audit function to effectively play its role in the organization and help solve them. This would thus enable the management to be better stewards in safeguarding not only the shareholders' interests but also protecting deposits made by customers.

1.5.4 Investors

The audited financial statements are relied upon by investors. Investors would be able to generate sound investment decisions with the support of this study's findings on the reliability of SACCO financial reports. The findings would also be of value also to the shareholders as it would enable them to know whether their investment is properly safeguarded and enable them seek further ways of safeguarding their investments.

1.5.5 Academician and Scholars

The study would concentrate on significant literature covering aspects related to audit effectiveness. Other researchers thus have access to extensive material on audit efficacy thanks to which they can learn. In such event, elements that have not been covered in this exercise would provide other researchers an opportunity to keep working on further projects over the present one.

1.6 Scope of the Study

This study was confined to 15 Deposit taking Saccos in Western Kenya since these Saccos are regulated by SASRA. They include Invest and Grow Sacco, Wevasity Sacco, Afya Sacco, Police Sacco, Ukulima, Mwalimu National, Kussco sacco, Mudete Sacco in Kakamega County; Vihiga County Farmers Sacc and Vihiga County Sacco in Vihiga County; Faridi Sacco and Elimu Sacco in Busia County; Ng'arisha Sacco, Metropolitan Sacco, Stawisha Sacco in Bungoma County. It covered the antecedents of internal audit effectiveness as dependent variable. On the other hand, the antecedents which include management support, internal audit independence, internal audit competence and internal audit risk management were the independent variables. The study was conducted between December 2023 and December 2024.

1.7 Limitation of the Study

The researcher noted lack of cooperation from the respondents who were not willing to spend time answering questionnaires. Some respondents may have not appreciated the

importance or significance of the study and hence could ignore the questionnaires altogether. To control such possibilities the researcher took time explaining the importance of the research, design an anonymous questionnaire and gave assurance that information would only be meant for study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the pertinent theories, past studies, conceptual framework and literature review while also identifying gaps in our understanding.

2.2 Theoretical Review

2.2.1 Resource Based View Theory

The origin of the Resource Based View (RBV) hypothesis can be attributed to Birger Wernerfelt, who authored an essay titled "A Resource-Based View of the Firm" in 1984 (Dionysus & Arifin, 2020). These authors emphasized the significance of firm resources and their impact on firm performance (Chatterjee, Chaudhuri, Vrontis & Thrassou, 2023). The RBV theory posits that firms should prioritize the maximization of their internal resources to generate and dominate future possibilities, rather than focusing on achieving strategic fit with the external environment (Lubis, 2022). The core proposition of the theory is that for a corporation to consistently outperform its competitors, it must obtain and manage resources and competencies that are valuable, unusual, difficult to imitate, and cannot be easily replaced by substitutes (Nagano, 2019). According to this theory, individuals are considered as an asset rather than an expense. It promotes activities such

as learning, exchanging information, creativity, and experimenting. Employees are actively engaged in the decision-making process (Miller, 2019).

Resource-based theory (RBT) can be applied to internal audit effectiveness in several ways. RBT is a management theory that suggests that firms can achieve competitive advantage by developing and leveraging their unique resources and capabilities. In the context of internal audit, RBT suggests that internal audit departments can enhance their effectiveness by identifying and developing their own unique resources and capabilities (Freeman, Dmytriyev & Phillips, 2021). Internal audit departments have a number of unique resources that can be valuable to the organization, such as their expertise in risk assessment, control evaluation, and governance. By identifying and developing these resources, internal audit can enhance its ability to add value to the organization. Internal audit has a number of unique capabilities that can be used to improve organizational performance (Zahra, 2021).

Opponents of this theory state that the resource-based strategy's efficacy is highly dependent on the external circumstances of the firm, and that the strategy yields better results in less predictable external environments (Gibson, Gibson & Webster, 2021). Some have said that being valuable, rare, unique, and non-substitutable the four pillars of the theory isn't enough to keep a business ahead of the competition for the long haul (Beamish & Chakravarty, 2021). Business risk management, regulatory compliance and overall governance are three areas where an organization's performance may be greatly improved

by a skilled internal audit staff. Resource based theory came out as the main theory for this study.

2.2.2 Contingency Theory

The concept was proposed by Max Weber and Taylor in 1958. It explains the behaviors and operations of an organization. This literature examines the impact of situational factors such as culture, technology, and the external environment on a firm's planning and operations. The core tenet of this theory asserts that there is no universally applicable organizational structure that is good for every organization. The efficacy of a business is contingent upon its alignment with the specific technology type, level of environmental instability, organizational size, elements of the organizational structure and information system (Kiplangat & Theuri, 2021).

This notion is utilized to illustrate the correlation between the environment, the internal audit framework, and organizational performance, and is frequently associated with the dependability of an entity's internal audit autonomy. The necessity for internal control measures is contingent upon the unique attributes of each individual company. This aligns to contingency theory, that explains that organizations select control system based on contingency factors. Ahmed and Muhammed (2018) found that internal auditing facilitates effectiveness of a firm.

There are activities, structures, and authority systems in the design and control domains. These include the rules, regulations, and procedures that describe a person's power.

According to this model, decentralized power works best when the environment is uncertain. Conversely, in a centralized authority, it is preferable to have a certain environment (Mustapha & Dahiru, 2022). The understanding of this theory is that the selection and implementation of risk-based auditing in an organization rely on various factors, both internal and external (Rikhardsson, Rohde, Christensen & Batt, 2021).

Contingency theory is a useful framework to understand how various factors (contingencies) influence organizational effectiveness, including the effectiveness of internal audit functions. According to contingency theory, the size and complexity of an organization can impact internal audit effectiveness (Rikhardsson, *et al*, 2021). The level of technological integration and information systems within SACCOS can influence how internal audits are conducted and monitored. SACCOS operating in stringent regulatory environments may need stronger internal controls and audit procedures to meet regulatory expectations and safeguard stakeholders' interests (Nagano, 2019). Effective risk management frameworks provide clear guidance for internal auditors to prioritize audits, assess risks, and recommend mitigating actions to protect organizational assets and stakeholders.

The contingency theory, when applied to the internal audit, suggests that the design and usage of internal control systems depend on the specific organizational context in which these controls are implemented (Shonhadji & Maulidi, 2022). This theory proposes that the level of support provided by top management might differ significantly based on the specific region of the organization being audited, the defined scope of the audit, and the

firm's business or operational model. Auditors must meticulously oversee their inspections and consider multiple elements in order to successfully complete their tasks (Shohihah, Djamhuri & Purwanti, 2018). Therefore, this theory is pertinent to the present investigation because it acknowledges that independence and the competency are contingent factors that show how well the internal audit operates.

2.2.3 The Agency Theory

Agency theory was elaborated upon by Jensen and Meckling in 1976, as cited by Al-Kake and Ahmed in 2019. Agency theory analyzes the contractual association between a principle, who engages an agent to provide a service on their behalf, and entails delegating the agent with some decision-making authority (Aikins, Mensah & Kumi-Kyereme, 2022). It avails solutions pertinent issues between principles and agents (like shareholders) and agents (like corporate executives) who carry out the principals' instructions. When one party's interests and those of the other are at variance, and when the party in control lacks the means to independently verify the other's actions, agency theory delves into the potential for conflict. Furthermore, it addresses the complications that arise when the agent and principal have non similar perspectives on risk (Raimo, Vitolla, Marrone & Rubino, 2021).

Several internal audit stakeholders, such as the board, audit committee, and senior management, view internal auditors as acting as both agents and monitors (Przybylska and Kańduła, 2019). If the board or audit committee is ineffective, top management may exert undue influence over the internal audit, which can cause problems for the

organization. Stakeholders rely on the expertise of internal auditors to assess the efficiency of senior management. Despite the best efforts of the board of directors and audit committee, internal auditors may act counter to their interests for a variety of reasons. Managerial financial incentives, personal ties, and the influence of upper management on internal auditors' future positions and salaries all contribute to the incentives (Khalid, Hussin, Sarea & Shaarani, 2021). When it comes to sharing information, internal auditors in this particular work environment could be influenced by their personal interests. The board and audit committee become concerned about the reliability of the internal auditors' impartiality as a result of this. That is why the board and its audit committee need to put measures in place to reduce the likelihood of things that could make the auditors become biased.

As agents, internal auditors have a responsibility to conduct audit procedures professionally. For this to be true, one must possess the knowledge, abilities, and credentials necessary to do one's job well and accurately (Singh, Ravindran, Ganesan, Abbasi & Haron, 2021). The board and audit committee will have more faith in the internal auditors' abilities if they are trained and if they are qualified to do the job (Huong, Thai & Binh, 2022). By demonstrating their competence, internal auditors can disprove claims that they have been shirking their responsibilities. The audit executive oversee the internal audit department, developing the audit strategy, disseminating audit findings, and making sure that audit recommendations are implemented (Fossung, Mukah, Berthelo & Nsai, 2022). According to Jachi and Yona (2019), the internal audit department is tasked with reviewing members functionality. In

order to back up their assessment of the internal control system, internal auditors must gather enough credible evidence throughout this examination (Madawaki, Ahmi & Ahmad, 2022). Members of the organization will have more faith in the internal audit's results if they see tangible proof of its success. Members of the organization must view internal auditors as representatives, and one way to do this is through evaluating the department's performance.

Internal auditors are representatives of the company and depend on the cooperation of employees to carry out their work. An organization's internal audits are independent and less likely to be influenced by top management when an effective audit committee is in place. The issue of senior management's influence on internal auditors' future employment and salaries can be effectively addressed by establishing an audit committee that has power to select and dismiss the audit management (Al Matari & Mgamal, 2019). When upper management orders all divisions to execute the internal audit recommendations, it's another sign that members of the organization are behind them.

2.3 Conceptual Review

2.3.1 Management support

Support from management is a critical factor in examining the internal audit effectiveness. It encompasses the actions and attitudes of senior management that foster and enable functionality of internal audit. Strong management support enable internal based audit function to obtain the resources necessary to conduct audits effectively, gain access to the

information and records needed to conduct audits, be able to communicate audit findings and recommendations to management and other stakeholders, implement audit recommendations and achieve improvements in the organization (Poltak, Sudarma & Purwanti, 2019).

ISPPIA stresses the importance of senior management's role in assisting internal audit and the significance of the correlation between the two. Support from higher-ups is crucial for operational and internal auditing to be successful. According to Galayuni (2018), this is due to the fact that decisions made at the highest level of management encompass hiring qualified IA staff, outlining advancement opportunities for IA staff, and providing IA with organizational autonomy in their job. Management must be committed to following audit recommendations and must support efforts to improve internal audit (Eshetu, 2023). Evidence suggests that management buy-in and dedication affect IA's efficacy. When senior management backs audits, the IA function can do its job well. Like any other activity carried out within the organization, Information Assurance (IA) is an essential procedure that managers must realize. Without management's commitment resources both financial and time-related will be wasted (Gamayuni, 2018).

Existing study have associated management support with allocation of resources. Allocating sufficient budgetary resources ensures smooth operation and enables hiring and retaining qualified auditors (Olowoyo, 2023). Investing in training programs for internal auditors in skills like risk management and data analysis enhances their effectiveness (Nyapengera & Nyanjom, 2020). Equipping the internal audit department

with appropriate software and hardware optimizes processes and improves efficiency (Akhigbe & Anyanwu, 2020).

Organizational Commitment has also been associated with management support. Demonstrating a strong commitment to ethical conduct and good governance by setting a clear tone (Adediran & Ajagbe, 2022). Integrating internal audit findings into decision-making (Ogboi & Okoye, 2021) and providing timely and constructive feedback via engaging in open communication with the internal audit team fosters mutual understanding and improvement (Atuobi & Esenwosu, 2023).

Another aspect of top management support is fostering a positive audit culture. Encouraging open communication between staff levels and the internal audit team facilitates reporting of issues and concerns (Nyapengera & Nyanjom, 2020). Implementing reward systems for ethical behavior and whistle-blowing encourages transparency and risk identification (Atuobi & Esenwosu, 2023). Regularly assessing the internal audit function and implementing improvements based on feedback promotes ongoing effectiveness (Adediran & Ajagbe, 2022).

According to prior research, the absence of authorization, support, and motivation from management is likely to result in the IA audit process failing and squandering time and resources (Abdullah & Mustafa, 2020). Suleiman, Hamad, and Yussuf (2021) carried out research to investigate the variables influencing internal audit services' efficacy within Zanzibar's Ministry of Finance. Research conducted at Zanzibar's Ministry of Finance found that internal audit effectiveness is significantly affected level of management

backing internal auditing. In their study of Indian Nifty500 businesses, Joshi and Marthandan (2023) looked at the empirical data to find out what factors primarily affect the efficacy of internal audits (IA). Using multiple regression and factor analysis, we found internal auditors' performance in India as significant and effective.

Abrar (2020) investigated the efficiency of internal audits at a logistics and shipping company in Ethiopia. Receiving more support from management, ensuring the internal auditor's independence, and improving management's commitment which should be evaluated and maintained at levels that above the norm will increase the efficacy of the organization's internal audit. The factors that affect internal auditing's efficacy in Nigeria's public health system were examined by Inyang, Francis, and Florence (2021). According to the findings, management's backing including resources, action on audit findings, and training for staff has significant effect internal audits effectiveness.

Sheriff (2021) set out to determine how much support the internal audit system had from management. Study took place in Sierra Leone and comprised of sixteen chiefdoms, twenty-five councilors, three paramount chiefs, twenty-five wards, sixteen committees, eleven constituencies, and thirteen core staff members. The research used a descriptive strategy and combined qualitative and quantitative methods to analyze the results. The study's main takeaways are as follows: the audit committee is understaffed, the internal audit system lacks independence, and funds are being misallocated.

Dyhati and Wahyudi (2022) evaluated the level of assistance provided by management and its influence on the execution of internal audit services within the Malawi Police

Service (MPS). The Malawi Government operates multiple institutions around the nation. This study has utilized both quantitative and qualitative methodologies in order to gain a comprehensive understanding of management support services and their influence on the efficiency of internal audit. The study found that the level of support from management directly affects the performance of internal audit. If an audit department does not receive sufficient support from management to complete all of its planned operations for the year, it may not be able to succeed independently. The Management of the Malawi Police Service has developed methods to enhance its service delivery, including the implementation of an audit function, based on this knowledge.

Mohammed and Mohammed (2021) looked at the relationship between the efficacy of internal audit functions in tertiary institutions in the Northern Region of Ghana and the support of top management and regulatory regime. The study used a quantitative research strategy based on questionnaires to gather information from 70 participants. The study found that the backing of senior management has a little impact on the effectiveness of internal audits. Also, the research showed that internal auditors in Ghana aren't getting any aid from the current regulatory system.

Saputra, Winarningsih, and Puspitasari (2020) sought to identify and quantify the elements impacting the efficacy of internal audits in Indonesia's government agencies. This study's population included all internal audits conducted by Indonesian local government agencies. The research was based on 55 separate internal audits that various Indonesian government agencies conducted. The effectiveness of internal audit, especially in terms of competence and independence, is significantly impacted by the backing of

senior management. Support from top management does not, however, have an enormous effect on the effectiveness of internal audit right away. Internal audits are more effective at fulfilling their responsibilities and obligations when top management supports their competence and independence, according to this study.

2.3.2 Internal Audit Independence

The International Professional Practices Framework (IPPF, 2017) defines internal audit independence as the absence of bias or any external influences that could compromise an auditor's objectivity in carrying out their work. Additional steps must be taken to ensure the independence of auditors (Addaraini, 2020). This part makes it easier to conduct the audit objectively, without letting the audited company have any say in the matter. Auditors are better able to carry out their responsibilities accurately and produce trustworthy outcomes when they are both independent of their organizations and objective.

In accordance with ISPPIA Standard 1100, an organization's internal audit department should have independence and internal auditors should be objective in their work to boost the company's value. According to the IIA and the ISPPIA, the internal audit department can achieve independence by reporting to organizational levels that do not interfere with its ability to perform its tasks. According to Yusof, Haron, Ismail, and Chye (2019), these steps include avoiding situations where personal interests could be a hindrance, keeping an open line of communication with senior management and the board, having full access to all pertinent records, personnel, and departments, and making sure that executive management does not have any say in who is appointed or fired as head of internal audit.

A lot of what determines how effective audits are are the independence and objectivity of auditors. All of these characteristics ensure that audits are free from outside influences. There must be no compromise or influence throughout the auditing process for internal auditing to remain autonomous and impartial in providing assurance services and consultations (Anggraini, 2020). Independent and objective analysis is crucial to its success (Mertsola, 2022).

The independence of the internal audit, also known as operational independence, ensures that the audit is conducted in an unbiased and objective way, unaffected by outside forces or conflicts of interest. In order to achieve its goals and make the most of its resources, the department is ultimately responsible to either the Chief Executive or the Board; it reports to the Audit Committee and serves management. A well-defined internal audit charter can help improve the independence of internal audits by outlining these arrangements. Having an impartial frame of mind is essential for internal auditing (Nugraha, Yazid & Bastian, 2022).

It describes a state in which internal auditors are able to make objective decisions free from bias while evaluating concerns. The Head of Internal Audit and individual auditors uphold strict professional standards and remain vigilant in their pursuit of neutrality (Kurniawati & Karunia, 2018). Internal auditors must maintain objectivity in their work and ensure that the internal audit department is independent in order to meet the requirements of ISPPIA (Standard 1100) and increase the value of the firm. Muslikan, Masengi, Elvira, and Rahman (2022) state that auditors' assurance services are valuable

and credible since they are based on the core notions of cognitive and perceptual independence. Although they are usually employees of the organization, Kusumah and Pranoto (2023) back the premise that internal auditors should have independence and impartiality. Lack of independence is the primary barrier to developing developing nations' ability to build high-quality internal audit performance (Aidi, Sayuthi, Susanto, Junaidi, and Abdurohim, 2022).

Furthermore, earlier research by Njagi (2023), Addaraini (2020), and Setyaningrum & Kuntadi (2019) has established a clear correlation between the perceived effectiveness of internal auditing and its independence. Despite its critical importance, scholars have paid less attention to the issue of IA independence. By delving into the link between internal auditor autonomy and audit effectiveness, this study adds to the body of previous research. There is a clear correlation between the independence and objectivity of an internal audit division and the efficiency of its auditors, according to previous studies. Investigating the relationship between internal auditing's independence and its efficacy in Kirinyaga county administration, Kenya, was the 2018 research project of Nyaga, Kiragu, and Riro. Internal audit effectiveness and independence were found to be positively correlated in the regression analysis, with a significance level of 5%. According to the research, the efficiency of the audit function inside Kirinyaga County Government was greatly affected by the level of autonomy of the internal audit.

Pelser, Mensah, and Ngwenya (2020) investigated the relationship between an internal auditing function's efficacy and the independence of its auditors. The findings point to the

fact that the degree to which the internal auditing team is autonomous significantly affects the efficiency of the auditing process. Researchers Alqudah, Amran, Alessa, and Almaiah (2023) set out to determine if and how internal auditors' efficacy is impacted by empowerment. Autonomy, external rewards, and intrinsic rewards are three factors that have a substantial impact on internal auditors' effectiveness, according to the Resource-Based View (RBV).

Pham and Nguyen (2021) offered empirical information on the factors that impact the effectiveness of internal audits in Vietnamese steel businesses, as well as the characteristics of such audits. Several internal elements, including the independence of internal auditors and the operational principles and methodology of internal audits, impact the performance of internal audits in Vietnamese steel enterprises, according to the results. Ahmet (2021) investigates the variables that influence the efficacy of internal audit (IAE) in Turkey. The results proved that IAE was directly affected by the unique requirements of internal audit. The study's results showed that, in that order, independence, involvement in risk management activities, and collaboration with external auditors are the elements that affect IAE (Internal Audit Effectiveness). Nyaga, Kiragu, and Riro (2018) investigated the correlation between the efficacy of internal auditing within the Kirinyaga County Government and the degree of autonomy in internal auditing. A descriptive research design was employed in the study. The participants in the study were all forty-six(46) people working for Kirinyaga County Government's Directorate of Internal Audit. A self-administered questionnaire with multiple-choice questions was used to collect primary data. According to the evidence

analysis, the audit function lacked independence. A significant positive association between internal audit effectiveness and independence was shown in the regression study ($p\text{-value} < 0.05$). A key component in predicting the efficacy of the audit function in the county administration, according to the study, is the degree of autonomy of the internal audit.

Yusof, Haron, Ismail, and Chye (2019) used the Internal Audit Competence Model (IACM) to assess the degree of proficiency in their study. One of their main goals was to look into how independent internal audits played a role. The primary internal auditors' contact information was retrieved from the National Audit Department, and then questionnaires were sent to them. The study concluded that the internal audit function's overall efficiency is positively and significantly affected by giving the department more autonomy. The effectiveness of the internal audit department is diminished due to a lack of power. According to this research, the company may get a strategy to boost its capabilities by implementing IACM.

2.3.3 Internal Audit Competence

The efficiency of internal audit operations is heavily dependent on the skill level of the audit team (Gaol, 2022). According to the International Standards for the Professional Practice of Internal Auditing (ISPPA), Standard 1210, it is crucial to have an internal audit team that possesses the requisite knowledge, skills, and competences to fulfill their

functions. It is imperative that internal auditors possess the requisite knowledge, skills, and experience to enhance the organization's operations and contribute value (Hermawan, 2022). All members of the internal audit team should be highly competent in their respective fields in order to guarantee top-notch service. Accredited agencies must also ensure that they get a validated internal audit qualification. To achieve effectiveness in internal auditing, Shofia (2020) states that a mix of technical knowledge and ongoing training is necessary. All the various things that can affect how well the internal auditing department does its job are part of audit communication (Kadim, Khdair & Shaltag, 2021). A number of African nations, including Ethiopia, Ghana, and Kenya, suffer from ineffective internal auditing due to a lack of competency among auditors (Ali, 2018).

The variables that affect the quality of internal audits carried out by Pakistani commercial banks were studied by Afzal (2023). Several variables, including expertise, impartiality, performance, independence, board audit committee support, and level of knowledge, impact the evaluation of internal audit quality. Based on the findings, it appears that performance, competence, and objectivity are key components in conducting high-quality internal audits. The study's overarching goal is to help commercial banks in Pakistan raise the bar for internal auditing quality. Research by Mpakaniye (2022) examined the relationship between the competence of internal audit specialists and the efficiency of audits performed by Rwandan government agencies. Internal audit efficiency is strongly correlated with auditor competence, according to the correlation coefficient, which measures the relationship between the two variables. An analysis of the variables impacting internal auditing and its connection to

organizational performance was carried out by Ali (2018). A strong correlation between the Internal Audit department's performance and the firm's total success was seen in the results. Lihuan (2022) investigated Chinese SMEs (small and medium-sized enterprises) that are not publicly traded to find out what makes internal audits effective. Results indicate that internal audits are far more effective when auditors have a high level of expertise.

With an emphasis on syariah or Islamic banks, Sulanjana and Puspitasari (2018) set out to determine how competency affects the effectiveness of internal audits in the banking industry. Literature reviews, document analysis, and survey administration (by questionnaires and interviews) are all part of the technique. Only the BJB Syariah bank main office could provide the data. Multiple linear regression analysis was used to examine the data in the study. The internal audit performance at BJB Syariah bank's headquarters is significantly affected by competence and independence, according to two concurrent partial hypothesis tests. There is a strong association between these characteristics, as evidenced by the 93% R Squared value.

Widagdo (2018) investigated the impact of personal traits on the efficiency with which regional inspectorates carry out internal audits. Additionally, this study aims to determine whether group cohesiveness influences the link between auditor independence and internal audit effectiveness. The regional inspectorates in two separate Indonesian provinces Central Java and East Java make up the study's population. The analytical technique used in the study is structural equation modeling (SEM) with SmartPLS.

Internal audit efficiency is positively and significantly correlated with auditor independence, as predicted by the results.

The impact of competency on the effectiveness of internal audits was investigated by Setyaningrum and Kuntadi (2019). Given the prevalence of corruption cases, particularly within Ministries and Agencies, and the absence of an internal audit role, this research remains pertinent. The auditors working for the Inspectorate General of the Ministry of Transportation will be the subjects of this quantitative study, which will be conducted using questionnaires. The Indonesian Accreditation Committee for Ministries (IACM) has granted level 3 (integrated) accreditation to the Inspectorate General of the Ministry of Transportation in Indonesia. The study found that the effectiveness of internal audits is positively affected by competence, communication, and audit work. It was demonstrated, however, that independence had a negligible effect on internal audit efficacy. Expertise in both technical and non-technical areas is necessary for auditors, depending on their field of work. During the whole audit process, from preparation to execution and even after the fact, compliance with audit standards is essential. Improving one's verbal and written communication abilities is vital for auditors to ensure that they are able to communicate effectively with auditees. Using audit reports to track the progress of audit recommendations is one approach to this. Since independence is a necessary condition for an audit to be effective, this study finds that it has no effect on the internal audit's effectiveness. Siregar, Rizki, and Siregar (2022) undertook this research to find out how competence and integrity impact the standard of internal audit findings produced by the Medan City Inspectorate. Jl. Captain Maulana Lubis 2, Medan City is the location of the

Medan City Inspectorate, where the site investigation will take place. From January to December of 2022, the study will be carried out. According to the results of the hypothesis testing, the quality of the internal audit reports at the Medan City Inspectorate is not significantly affected by competence. Competence, defined here as the ability to carry out one's responsibilities effectively and efficiently, was not found to significantly enhance the quality of audit results at the Medan City Inspectorate, according to this study. This may be because the auditor is incompetent or has no background working with the audited entity.

Menaty and Zaman (2020) examined the impact of particular fundamental parameters on the efficacy of IAF. One hundred thirty-one internal auditors from companies with a functioning IAF make up the sample. Examining the participants using 29 sub-factors allows us to gauge the IAF's efficacy. Data pertaining to the characteristics of the IAF are also examined in order to gauge efficacy. After that, we run the numbers to see how the IAF parameters, which are the independent variables, relate to the dependent variable, which is the IAF efficacy. The collected data shows that competency has a good and substantial effect on the IAF's efficiency.

2.3.4 Internal Risk Management

The internal audit is a department within a corporation that offers a valued and essential service. Internal Audit Effectiveness (IAE) is a strategic concept that prioritizes risk management and assists firms in attaining their objectives by improving the standard of corporate governance. The primary purpose of the internal audit function is to

meticulously assess crucial areas of risk with the aim of supporting the firm's objectives (Ta & Doan, 2022). The internal audit function is responsible for actively engaging in the operations of corporate management and risk management to guarantee that the organization achieves its objectives. The IIA and the current COSO Enterprise Risk Management Framework need an internal audit that focuses on evaluating risks. IAE in today's complex business environment is associated with the ability to fulfill these responsibilities. The efficacy of the internal audit function relies on conducting audit operations solely on the basis of risk assessment. The effectiveness of the internal audit function's contribution to the organization is closely linked to its influence on enterprise risk management.

Modern internal audit activities must be carried out utilizing a methodology that focuses on assessing and managing risks. Strategically internal audit should be positioned to effectively detect and mitigate potential risks and issues faced by the organization. Research indicates that engaging in enterprise risk management and focusing internal audit operations on high-risk and important concerns enhances their effectiveness (Were, Warui & Kariuki, 2023). ElHaddad, ElHaddad, and Alfadhli (2020) conducted a qualitative study which found that implementing risk-based internal audit activities improved the effectiveness of the internal audit function in Belgian and American firms. The survey participants raised worries about the efficacy of internal audits when internal auditors are unable to fully participate in enterprise risk management initiatives. Castanheira et al. (2019) found that the lack of risk-focused behavior in internal audit activities in many private sector businesses resulted in negative consequences. The

efficacy of an organization is closely correlated to the degree to which its internal audit function contributes to managing primary risks.

Yudianto, Mulyani, Fahmi, and Winarningsih (2021) conducted a study to investigate the impact of enterprise risk management in Indonesia public state universities internal audit. In order to gather information, researchers use questionnaires and other explanatory research procedures. According to the research, Indonesia public state universities internal audit service agency both benefit greatly from executing enterprise risk management and keeping their internal auditing practices up to par. An effective corporate risk management system and the assurance of thorough internal audits are prerequisites for a university's performance improvement.

Cular, Slapnicar and Vuko (2020) investigated how external auditors choose between using internal auditors' evidence and providing direct support in consulting tasks related to corporate risk management. The study used a 2×2 between-subjects design with 92 qualified external auditors to examine these hypotheses. Our research confirms that, under the guidance of an effective audit committee, the internal audit function is the primary resource that external auditors rely on for risk management consulting. Regardless of the size of the audit committee it operates under, the effectiveness of the internal audit function is diminished when it provides assurance alone. When the audit committee is ineffective, the internal audit function is unable to provide adequate advisory services. According to the mediation study, the effectiveness of the audit committee influences the

reliance decision, which is impacted by the external auditors' view of the internal auditors' objectivity.

In his study, Yusoff (2018) aimed to examine the extent to which the risk-based approach has been adopted in the Malaysian public sector, namely across ministries and federal departments. The study utilized a straightforward sampling strategy by administering a survey questionnaire to all ministries and federal agencies that fall under the authority of the Ministry of Finance, as well as selected statutory bodies. The study's findings suggest that the public sector entities being examined did not effectively and consistently implement the risk-based approach. It is more preferable to use a combination of macro-level analysis and compliance-based audits at the micro level rather than relying on a risk-based strategy.

Tamimi (2021) aimed to determine the importance of the internal audit function in risk management, as regarded by risk managers in banks operating in Palestine. The study conducted a comprehensive analysis of the concept, significance, goals, and principles of internal audit, along with its function in the management of risks for banks. The target audience comprises risk managers employed in banks operating within Palestine. The findings emphasize the importance of the directors and executive management in these banks to prioritize the risk management department and ensure efficient coordination between these departments to maximize results at both the banking and economic levels.

ElHaddad, ElHaddad, and Alfadhli (2020) aimed to ascertain the extent to which internal audit aids in Libyan learning institutions. The study took a descriptive analytical technique

and applied questionnaire tool, utilizing SPSS software. The internal audit offices and departments of Libyan universities successfully perform risk management assessments and provide valuable contributions to their respective departments. In addition, internal audit offices and departments have the responsibility of generating, recording, and distributing reports on the results of their actions.

In their study, Nyerere (2022) investigated how risk-based internal audit affects the financial performance of DT-SACCOs in Nairobi Metropolis, Kenya. The study utilized a descriptive research methodology and was grounded in three distinct theories: the fraud triangle theory, audit theory, and risk management theory. A comprehensive survey was conducted to gather data on 43 DT-SACCOs in Nairobi Metropolis, Kenya, as a component of the research. The primary data was obtained from responders, specifically one audit manager from each DT-SACCO. Supplementary information was collected to validate the precision of the financial performance statistics. Regression models were used to investigate the hypothesis concerning the influence of risk assignment and risk-based audit planning of DT-SACCOs performance. The results unequivocally demonstrated that both factors exerted a statistically significant impact.

Were, Warui, and Kariuki (2023) conducted a study to examine the influence of risk-based internal audit techniques, specifically cybercrime security measures, data analytics, and disaster recovery controls, on the financial performance of insurance businesses listed on the NSE in Kenya. The study utilized a causal research technique to conduct a survey of six insurance businesses that are licensed to trade at the NSE in Kenya. The study

employed a combination of primary and secondary data, which were assessed using descriptive and inferential statistics. The results were subsequently presented through the use of visual aids such as graphs, statistics tables, and pie charts. The study revealed that organizations that used Cybercrime security controls, data analytics, and disaster recovery strategies observed enhanced operational efficiency, leading to a beneficial effect on their financial performance.

2.3.5 Internal Audit Effectiveness

A variety of scholars have defined and analyzed effectiveness. According to Alsabti and Khalid (2022), effectiveness is defined as the capacity to accomplish aims and objectives with success. According to Nugroho Uzliawati and Taqi (2021), internal audit office is determined by how well it achieves its stated goals. The ability to achieve intended results in line with set objectives was defined by Yanti, Sari, Ghazali, and Astrina (2022) as effectiveness. According to the International Institute of Internal Auditors (IIA) definition from 2010, "internal audit effectiveness" is the extent to which objectives are met while considering their quality. According to Temesgen and Estifanos (2018), the efficacy of an internal audit is evaluated by the auditor's ability to accomplish the organization's set objectives. There are numerous factors that influence the efficacy of internal audits, which is why previous studies have employed a variety of methods to investigate their effectiveness.

A second concern about internal audit's efficacy is the lack of appropriate and trustworthy metrics for evaluating the department's output. According to Joshi (2020), determining

what percentage of audit recommendations are really put into action by the reviewed company is the best way to gauge the efficacy of internal audits. Audit results and suggestions can only be effective if management is fully committed to putting them into action, according to Barkhordar, Nazemi, and Namazi (2021). The ability of the internal auditor to intervene and fix errors, resulting in the resolution of a large number of issues, is what Hamza Mohammad (2020) means when they talk about the efficacy of an internal audit.

There are several ways to measure an audit's effectiveness. Some of these include looking at how it affected processes like risk management, control, and governance; how well it aligned with key goals and objectives; how well it performed compared to the audit activity plan; how much it improved staff productivity and audit process efficiency; how many process improvement plans were identified; how well it met the needs of stakeholders; and how well it evaluated the adequacy of engagement planning and supervision. Ganji, Hosayni, and Nami (2023) looked at how internal audit operations' quality improvement programs and quality assurance evaluations impacted the business. The study looked at how well auditors were able to communicate with both the board and the auditee, as well as how effective the auditing process was overall. The Institute of Internal Auditors (2015) study describes how different methods for effective internal auditing are used in the UK and Ireland's private sectors. Multiple internal audit organizational systems were analyzed, and the results showed that auditors' credentials and the value they supplied to firms were both enhanced. According to the research, the following are the most important components of a good internal audit:

Complete familiarity with the business and all of its intricacies; Proficient in expanding responsibilities in financial management, information technology, project management, and client interactions; knowledgeable about current standards and best practices; adept at complying with local and international legislation. Displays agility and responsiveness to changing dangers. Convinces and earns the trust of upper management. Autonomy and objectivity; Executing open and honest internal audits with the goal of identifying and mitigating risks. Providing advice and recommendations that support the aims of the company. Exceptional quality of service; Coordination and harmony with other divisions charged with assurance and control tasks; Attaining success in this specific scenario requires strong teamwork, chances for professional growth, a commitment to skill enhancement, and a diligent effort to carry out audit responsibilities (Ahmed & Sarea, 2019).

In the article "Practical tools for internal auditors" (2016), John Bendermacher, the Chairman of IIA Netherlands, expressed his perspective on the subject of evaluating the efficiency of the internal audit function. At what point is an Integrated Air Defense System (IAF) considered "effective"? It is not possible to provide a definitive response to that matter, as it is contingent upon a variety of factors, including the geographical location of your operation, the wording of your mission statement, and collaboration with auditor. Alqudah, Amran, and Hassan (2019) draw the conclusion that there is a lack of research into the efficacy of IA at the present time.

Solomon (2019) defines internal audit effectiveness as the assessment of the internal based audit ability to accomplish its intended goals. According to Ta and Doan (2022), the efficacy of internal auditing might vary not only across countries but also across different levels of an organization's hierarchy. Taking into account the resources at their disposal and other tactics that can assist in reaching these objectives, the organizational management should establish clear targets for the internal auditors to achieve. It is believed that the expectations of important stakeholders affect an internal audit unit's effectiveness. Nevertheless, Poltak, Sudarma, and Purwanti (2019) note that there are systematic and widely recognized methods for assessing the effectiveness of internal audits.

2.4 Empirical Review

Singh, Ravindran, Ganesan, and Haron (2021) examined the factors associated with the effectiveness of internal audits. This paper investigates the relationship between the efficacy and caliber of internal audits of multinational firms in Malaysia. The data was analyzed using Smart PLS Software 3.0 via the technique of structural equation modeling. The findings suggest that the efficacy of internal audits is correlated with criteria such as managerial endorsement, interdepartmental collaboration, and the support and acceptance of the auditees. On the other hand, the findings also showed that the quality of internal audits was linked to independence, objectivity, and competence, which are the essential elements of effective internal audits. The study confirmed the significance of collaboration between different departments and the support and approval of those being audited as

crucial factors for the effectiveness of internal audits. This aspect has not been thoroughly investigated in previous research.

Sarhan, Ntim, and Al-Najjar (2019) investigated the influence of governance quality at both the firm and country level on the quality of audits. The assessment of audit quality was determined by two criteria: (i) the choice of auditors and (ii) the fees levied for audits. We have encountered three separate findings. The results of our study suggest that there is a direct relationship between the level of independence of a board and the choice to engage. Conversely, we found that there is a negative correlation between the percentage of family-owned shares and the probability of hiring auditor. Furthermore, there exists a clear relationship between the board size, board independence, and the extent of director shareholdings, and the amount of audit costs. On the other hand, there is an inverse relationship between the percentage of government ownership and the percentage of family ownership in a company, and the amount of audit fees paid. Moreover, there exists a notable association between the level of governance quality at the national level and the choice to engage a Big 4 auditor, as well as the provision of elevated audit fees. Our research findings indicate that the quality of external audits in Middle Eastern and North African (MENA) nations is directly affected by the quality of governance at both the business and country level. Therefore, it can be inferred that the quality of governance and the quality of external audits collaborate to protect the interests of stakeholders by guaranteeing a better level of audit quality. The robustness of our findings persists even after considering various measures and endogeneities.

Mpakaniye and Delphine (2022) analyzed antecedent of internal audit on effectiveness of public firms in Rwanda. They specifically conducted a case study on RSSB. The study was conducted with specific aims, which encompassed evaluating the degree of internal audit efficacy in RSSB, analyzing the factors that influence internal audit effectiveness in RSSB, and investigating the challenges encountered by the internal audit function in RSSB. The study sample comprised 305 employees of RSSB, who were selected using a purposive sampling technique. The study found that financial audit and performance audit are the main criteria that determine the success of the internal audit function in RSSB. All respondents agreed on this with a 100% consensus. The significance of compliance audit was also recognized, with 92.6% of respondents recognizing its importance. Furthermore, a significant majority of 85.2% of participants affirmed that risk assessment plays a vital role in evaluating the efficacy of internal audit practices in RSSB. The study found that the main measure of RSSB's performance is the increase in assets and profitability, with all respondents seeing it as such. Regarding effectiveness, 85.2% of respondents identified solvency as a measure. The findings also indicate that customer satisfaction is a noteworthy indicator of RSSB performance, with a percentage of 77.8%. Furthermore, internal audit is of utmost importance in protecting corporate assets, achieving a success rate of 100%. Next, profit maximization is discussed in relation to its significant role in informed decision making, achieving an impressive rate of 92.6%. Moreover, the percentages for enhancing performance management and improving employee effectiveness are 88.9% and 85.2% respectively. Furthermore, the study using the Pearson

moment association coefficient found a positive association between the internal audit function and the effectiveness of RSSB.

Alsabti and Khalid (2022) looked at the Muscat Securities Market (MSM) listed firms to see what variables affect the effectiveness of internal audits (IAE). Reliability, relevance, adaptability, and integration were the chosen requirements for the accounting information system (AIS). This study mostly used a quantitative approach to research that included structural equation modeling (SEM). Financial and accounting managers, accountants, internal auditors, and audit committee members made up the sample from which the data was retrieved using a straightforward random sampling technique. Overall, 397 people filled out the survey. The research found that the AIS variables significantly affected the IAE.

In their 2020 study, Abdullah and Mustafa sought to identify the elements influencing the efficacy of internal audits (IAE) in Iraq's Kurdistan region. Fifteen college directors and fifteen internal audit managers from the University of Duhok were surveyed to gather data. There are three main components that have been examined in relation to IAE using multiple regression analysis. Both college directors and internal auditors saw that management support affected how efficient they thought internal auditing was inside the IAE framework. The availability of knowledgeable and skilled workers, in addition to an adequate distribution of resources, are essential for effective management assistance. The study did not find a significant association between the internal audit's autonomy and its effectiveness, nevertheless.

Nugroho Uzliawati and Taqi (2021) considered management support as a moderating factor and set out to investigate the effects of audit quality, auditor skill, and the scale of internal audits on the effectiveness of these processes. Institutional theory conform to and be in harmony with the pre-existing cultural norms and practices. Internal auditors employed by SOEs in the financial and insurance industries were the focus of the research. The data used were 62 participants' main records gathered using the snowball sampling technique. Findings point to a correlation between auditor skill and audit quality. Furthermore, the amount of assistance given by management affects how effective internal audits are, which in turn affects audit quality.

Yanti, Sari, Ghazali, and Astrina (2022) investigated the impact of managerial support, competency, organizational culture, and professional ethics on the efficacy of internal audits in State-Owned Enterprises (BUMN) situated in Palembang City. Associative research is the research methodology employed. All of the data utilized are original, primary sources. A total of 32 individuals from Palembang City's State-Owned Enterprises (BUMN) internal audit department participated in the study. Questionnaires and interviews are the main tools for gathering information. In order to decipher the data, the study employed a quantitative analytic methodology. This study's findings indicate that organizational culture, auditor competency, management buy-in, and professional ethics have a significant role in determining internal audit effectiveness. Ratmono and Darsono (2022) examined Indonesian local government entities to find out what makes their internal audit function work or not. A total of one hundred thirty-seven people were considered for the study. The questionnaire was the main method of data collection in this

study. According to the statistical tests, the internal audit function is more effective when auditors are independent, competent, and have the backing of upper management. Knowledge and managerial support still matter much when it comes to internal auditing efficacy, even in this cooperative partnership.

Joshi (2020) sought to determine the factors that impact the effectiveness of internal auditing in Indian publicly traded corporations. There was a random selection of 300 publicly traded companies. All organizations' heads of accounts, as well as their chief audit department officers, internal audit managers, and auditors, were sent questionnaires by regular mail. A total of 28.3% of people were able to react. Using the multiple regression method, we were able to collect the data and show that all three factors had a substantial impact. Planning based on risk, using big data and analytics, and how often the internal auditor (IA) meets with the audit committee (AC) are the three components in question. An evaluation of IA's efficacy is the dependent variable, and the model accounts for 42.8% of its variance. An internal auditor's proficiency in risk assessment and Big Data/Analytics should be prioritized, according to the research. Their ability to provide outstanding service to the AC members, the board of directors, and auditors would be greatly enhanced by this.

Ashfaq, Rehman, Haq, and Usman (2021) conducted a study to examine how internal auditors' performance is regarded by stakeholders and how it impacts their decision-making processes. The study focused on evaluating the effectiveness and reliability of

internal auditors. The absence of established guidelines and protocols results in a dispute concerning the unorthodox reporting of the internal controls system's evaluation by the internal auditor and the external auditor's dependence on it. The study utilized a mixed-method approach, specifically triangulation, to examine the data. The regression analysis was conducted using Smart PLS 3.2.8 to analyze the quantitative data. The qualitative data was utilized to reinforce and augment the results. Information is collected for five distinct variables (IVs): Objectivity of IAF, Work Performance, Competence, Assessment of Internal Control System, and Sourcing of IAF. The aim is to analyze their impact on two dependent variables (DVs): Effectiveness and Reliance. The study specifically examined five target audiences: Internal Auditors, External Auditors, Professional Bodies, Shareholders, and the Securities and Exchange Commission of Pakistan (SECP) and the State Bank of Pakistan (SBP). Of the 150 individuals approached, 98 gave a valid response. The study examines the relationship between the objectivity of the Internal Audit Function (IAF), work performance, competency, sourcing of the IAF, and their influence on effectiveness and reliance. The evaluation of the internal control system exhibits a large association with efficacy and an insignificant association with reliance, primarily due to the absence of regulations, hence undermining its credibility for stakeholders.

Barkhordar, Nazemi, and Namazi (2021) investigated the factors that influence the effectiveness of internal auditing. Furthermore, they assessed this division's function in monitoring Keshavarzi Bank's internal controls and risk management. The research is defined by being both informative and applicable. In 2019, information was gathered from

78 bank professionals representing several organizational groups, such as specialists responsible for Keshavarzi bank, senior managers, inspectors, and internal auditors. The method of data collecting was the use of questionnaires. Statistical tools from SPSS and Smart PLS, in conjunction with structural equation modeling, were used to examine the research hypotheses. In terms of statistical significance and positive effect on internal auditing effectiveness, the following factors were found: internal auditing size, internal auditor competence, management support of internal audit, independence of internal auditing, and the interaction between internal and independent auditors. The internal controls of the bank are enhanced by internal auditing, although this does little to improve the bank's risk management. The study's results suggest that internal auditors should be involved in risk assessments and that their responsibilities should be structured in a way that takes risk into account. A more efficient internal audit procedure at Keshavarzi Bank will be the end outcome of this.

Almahuzi (2020) looked into how well the Saudi Arabian government's internal audits worked. This research looks at the connections between three external factors: the backing of upper management, the culture of the company, and the autonomy of internal audits. Aside from that, it looks at how four internal factors the size of the internal audit team, the utilization of IT, the expertise of internal auditors, and the motivation of internal audit staff are related to one another. In the end, the paper delves into the causes of various government agencies not having internal audit units. A mixed-methods strategy involving questionnaires and semi-structured interviews was used to collect the data. The purpose of this study was to gather participants' perspectives on the characteristics and factors

influencing the efficacy of internal audits in Saudi Arabia's public sector through a series of 36 semi-structured interviews. On top of that, 300 surveys were sent out to Saudi Arabian public sector internal audit specialists and division heads. The number of returned and completed questionnaires is 290. Results showed that senior management's buy-in, the preexisting culture of the business, and the autonomy of the internal audit function were the most important external factors affecting internal audit effectiveness. Of these external determinants, the support of senior management had the greatest impact on internal audit efficacy, according to the initial ordinary least squares (OLS) regression model. Among internal characteristics, the second OLS regression model found that auditor proficiency was the most important predictor of audit effectiveness. The efficiency of internal audits is heavily dependent on the competence of the auditors conducting them. Other elements that affect internal audit efficiency include the amount of excitement among audit staff, the size of the audit team, and the utilization of information technology.

Hamza Mohammad (2020) sought to widen the use of resource-based and agency theories in the public sector. Also, Mohammad considered the moderating effect of job complexity as a new variable in understanding the causes of IAE and studied its effects. Five variables were identified in this study as having the ability to influence Individual Adoption of Innovation (IAE), and five more were proposed as hypotheses regarding the ways in which task complexity could influence these relationships. Two sets of questionnaires were issued to managers of internal audits and finance in Jordanian public entities that are overseen by the Audit Bureau. This study applied a quantitative methodology. Out of the total number of questionnaires, 117 (or 41% of the total) were returned. Internal audit

effectiveness (IAE) was found to be positively impacted by characteristics such as top management's strong support, internal auditor autonomy, collaboration between internal and external auditors, and external awards. The internal audit department's size did not significantly impact IAE, though. With the exception of the extrinsic incentives factor, the results further confirmed that task difficulty significantly moderated the interactions among all examined variables on IAE. The correlation between extrinsic rewards and IAE was shown to be unaffected by task complexity. According to the results, the government should prioritize the complicated tasks performed by public sector internal auditors and address any weaknesses in their internal resources so that audit effectiveness can be elevated.

Kukuiah (2019) investigated what makes internal audits in Ghana's public sector effective. To choose individuals, the research used a mixed-methods strategy combining purposive and stratified random sampling. Afterwards, 130 internal auditors from the designated study area were surveyed using a questionnaire. In order to determine what aspects affect internal audit effectiveness, the study used Structural Equation Modeling. Research in the Central Region's public sector indicated that internal audit efficiency is favorably and significantly impacted by auditors' independence, competency, and control environment. While management does offer some assistance, it is not enough to make internal audit much more effective.

Researchers Ganji, Hosayni, and Nami (2023) looked at how the efficiency and quality of internal audits in Tehran Stock Exchange (TSE) companies were affected. Twelve

separate theories were developed in an effort to reach this objective. Three groups were established for the variable "effectiveness of internal audit": competence, independence, and realism. In addition, the "consequences" variable was further subdivided into three groups: management buy-in, auditor buy-in and acceptance, and internal auditor collaboration across departments. And we must not forget that inadequate information exchange makes it hard to get data on the "quality of internal audit" variable. The manager, an internal audit staff member, or a committee member of every company was required to fill out a questionnaire in 2021 that evaluated the quality of internal audits based on 32 factors in order to combat this issue. Use of SmartPLS for structural equation modeling (SEM) allowed for data analysis. Documentation and outcomes of internal audit performance appear to have a substantial impact on the quality of internal audits, according to the available information.

Poltak, Sudarma, and Purwanti (2019) was to identify the elements that make internal audits at the KKP (Ministry of Marine Affairs and Fisheries) effective and to offer evidence supporting these claims. One hundred thirty-one internal auditors and thirty-one KKP staff members were part of the probe. Research with the goal of offering explanations led to the undertaking of this study. Using the study questionnaire data and the Partial Least Squares (PLS) analytic tool, the hypotheses were tested. According to the findings, internal audits are more effective when external auditors work together, the organization is independent, and the auditee's perspectives are taken into account. Internal audits are effective regardless of the level of professionalism in the audits and regardless of whether management supports them. This research could broaden people's perspectives,

particularly KKP executives', to think about policies that can make internal audits more successful, which in turn can help the company achieve its goals and perform better.

Ahmed and Sarea (2019) look into what makes an internal Shariah audit in Bahraini Islamic financial institutions (IFIs) efficient. To investigate the topic mentioned before, the questionnaire method has been utilized. At the same time, 52 people who are heads of departments inside Islamic financial institutions' internal Shariah audits have agreed to participate as respondents. These IFIs are formally recognized and registered with the Central Bank of Bahrain. In order to examine the relationships, the research used SmartPLS3.0 in conjunction with the structural equation method (SEM). Results show a correlation between competent and effective internal Shariah auditing and successful implementation of internal Shariah auditing. In addition, there is strong evidence that a Shariah supervisory board and independence are important for internal Shariah audits to be effective. However, substantial feedback is lacking. These factors contribute to the efficiency of Islamic financial institutions' (IFIs') internal Shariah audits to the tune of 63.2%.

Ta and Doan (2022) looked at four aspects that affect how effective internal audits are in Vietnam: how independent the audits are, how competent the auditors are, how much help they receive from management, and how good the assignments are. Using SPSS software, we ran a number of analyses, including a logistic regression model, as part of our quantitative and qualitative evaluation process. One hundred forty-four internal auditors

from non-financial companies listed on the Vietnamese stock exchange in 2021 participated in the study. An online survey and semi-structured in-depth interviews were used to get the data. Two factors were found to have a positive effect on internal audit efficiency after looking at the data: the independence of the internal auditor and the support of management for internal audit. Yet, internal audits were not significantly affected by the competence or quality of the auditors conducting them.

Solomon (2019) explored Ethiopian private commercial banks to find out what makes internal audits effective. A comprehensive review of existing literature led to the development of five working hypotheses. The major data source for the study was a battery of questionnaires. The research used a cross-sectional survey design, with data collected from structured questionnaires using a purposive sampling procedure. Sixty percent of the variance in the efficacy of internal audits is attributable to each of these five independent variables. Factors such as audit committee presence, internal audit staff competency, and auditor independence and objectivity were found to be positively associated in the study. It was shown that these factors have a direct impact on how effective internal audits are. On the other hand, internal audit performance is unaffected by the presence of an organizational setting or management assistance. These factors were critical in enhancing the efficacy of internal audits and uncovering any noncompliant activities within private commercial banks.

The chapter focuses on the theoretical, conceptual, and empirical evaluations that are relevant to the specific objectives of the study. The study will be guided by the resource-

based perspective theory, contingency theory, and agency theory. The present study sought to rectify the shortcomings noted in the majority of the evaluated studies. The gaps were not just derived from empirical evidence, but also from methodological and conceptual factors. For instance, Kirui (2022) investigated how the features of the audit committee impact the efficiency of audits in the municipal government of Kericho, Kenya. The proposed research aims to perform a study that examines the relationship between audit features and audit effectiveness in several sectors of the economy, including the financial industry. Gitonga (2021) examined the influence of internal audit characteristics on the efficiency of audits in semi-autonomous government firms in Kenya. Considering the narrow scope of this study, which only examines the impact of audit independence and audit experience, it is advisable for future research to investigate additional aspects that could influence the efficiency of internal audits carried out by government agencies.

Ratmono and Darsono (2022) studied the factors that influence the effectiveness of the internal audit function in Indonesian local government entities. The findings provide useful insights into the internal audit techniques employed in this specific context. Nevertheless, the study highlights the significance of assessing if comparable criteria are relevant to various types of companies or in different countries. Temesgen and Estifanos (2018) sought to determine the primary factors that affect the efficacy of internal audits in municipal administrations located within the Gurage zone in their research. The study proposed that future research should explore additional factors that may influence the effectiveness of internal audits, such as corporate culture, management endorsement, resource allocation, and regulatory framework. By considering a broader range of

variables, one can gain a more comprehensive understanding of the factors that contribute to the effectiveness of internal audits in local administrations.

2.5 Research Gaps

Table 2. 1: Research Gaps

Author	Title	Methodology	Findings	Gaps
Singh <i>et al.</i> (2021)	Factors that are associated with internal audit effectiveness.	A total of 102 questionnaires were collected from internal auditors and chief audit executives of 12 multinational companies in Malaysia. The data was analyzed through structuralinvoic equation modeling by using SmartPLS Software 3.0	The findings reveal that management support, interdepartmental coordination and the support and acceptance of auditees were associated with internal audit effectiveness.	Reliance on internal auditors and chief audit executives might introduce bias due to individual perceptions or reluctance to criticize practices.
Mpakaniye and Delphine (2022)	Factors affecting the effectiveness of internal audit functions in Rwandan public organizations; a case study of RSSB.	The study population was comprised of 305 employees of RSSB from which by using a purposive sampling technique	The study found that financial audit and performance audit is 100% the determinant of the effectiveness of internal audit function in RSSB followed by compliance audit as indicated by 92.6% of respondents while	Purposive sampling: While convenient, this method might not ensure a fully representative sample of all RSSB employees and their diverse viewpoints.

			a risk assessment is also one of the determinants of the effectiveness of internal audit practice in RSSB as confirmed by 85.2% of respondents	
Alsabti and Khalid (2022)	Factors influencing internal audit effectiveness (IAE) in the companies listed in Muscat Securities Market (MSM)	A quantitative approach using structural equation modelling (SEM) was utilised as the main research design. The data was collected from a group of respondents comprising financial\accounts manager, accountant, internal auditor, audit committee member through simple random sampling	The study results indicated that AIS factors have a significant influence on IAE.	There may be a lack of detailed understanding regarding the specific AIS components or functionalities that have the most significant impact on IAE.
Abdullah and Mustafa (2020)	Factors impact on internal audit effectiveness (IAE) in Kurdistan Iraq	Data were collected from 15 directors of colleges and 15 internal audit managers at University of Duhok. The relationship between IAE and	Findings reflect that management support for IAE perceived effectiveness of internal audit from both directors of colleges and	Small sample size: 15 directors and 15 internal audit managers might not be enough for robust

	three principle factors has been examined using multiple regression analysis	internal auditor's perspective. Management support is related to occupy experienced and trained staff, providing sufficient resources. However, this study found insignificant relationship between independence of the internal audit and internal audit effectiveness	statistical analysis and generalizable conclusions.
Nugroho Uzliawati and Taqi (2021)	effect of audit quality, the size of the internal audit, and the competency of auditors with management support moderating variables on the	The research population was internal auditors who worked in State-Owned Enterprises (SOE) in the Finance and Insurance Sector. The data used was primary data with a sample of 62 respondents with the snowball method of data collection	The results of the study show that audit quality and auditor competency have a positive effect and management support moderate the effect of audit quality on internal audit effectiveness. Small sample size: 62 respondents might not be enough for robust statistical analysis and generalizable conclusions. Snowball sampling: This method can introduce bias by relying on existing networks and potentially

		effectiveness of internal audit.			excluding diverse perspectives
Yanti, Ghazali and Astrina (2022)	Sari, Effect Management Support, Competence, Organizational Culture and Professional Ethics on the Effectiveness of Internal Audit (Case Study on State-Owned Enterprises (BUMN) in Palembang City).	of	The type of research used is associative research. The data used are primary data. The population in this study is the internal audit in the State-Owned Enterprises (BUMN) in Palembang City as many as 32 respondents. Data collection techniques are using interviews and questionnaires. The data analysis method used in this research is quantitative analysis.	The results of this study show that management support, competence, organizational culture and professional ethics significantly influence the effectiveness of internal audit.	While valuable, single-city case studies offer limited generalizability compared to larger-scale studies. 32 respondents might not be enough for robust statistical analysis and generalizable conclusions.
Ratmono and Darsono (2022)	Factors influencing (determinants) the effectiveness of the internal audit		The research samples were 137 respondents. This study used primary data in the form of a questionnaire	The results of statistical tests showed that independence, competence, and management support could increase the	The study doesn't mention the amount of variance left unexplained, leaving room for exploring

<p>function in Indonesian local government organizations</p>	<p>effectiveness of the internal additional influencing audit function. However, this factors. cooperative relationship does not moderate the influence of competence and management support on the effectiveness of internal audit.</p>	
<p>Temesgen and Estifanos (2018)</p>	<p>Identifying main Descriptive and explanatory determinants of research design was considered. internal audit The survey includes 60 effectiveness in respondents; using simple Gurage zone local random sampling Woredas were Administrations. selected and all units of each selected were included. The researcher collected data from primary sources. The primary data has been collected by distributing five scale likert scale questioner to the sampled respondent.</p>	<p>The results of the model show 60 respondents might not that quality of internal audit, be enough for robust independency of internal audit statistical analysis and and proficiency of internal generalizable conclusions. auditors are positively affecting internal audit effectiveness.</p>

Musah (2018)	Factors that determine internal audit effectiveness among SOEs in Ghana.	The surveyed internal auditors, accountants and management of these sampled SOEs in Ghana.	The results of the study showed that management support for internal audit function is the most significant determinants of internal audit effectiveness. The study also revealed that size of internal audit unit, competence of internal audit staff, independence of internal audit unit as well as good relationship between internal and external auditors were significant determinants of internal audit effectiveness.	Findings might not translate directly to other countries or types of organizations with different contexts and internal audit frameworks.
Joshi (2020)	Identify the determinants that affect effectiveness of	the A sample of 300 listed companies that was drawn. Questionnaires were mailed to the head of audit department, internal auditor and managers, internal auditor and	The study indeed encourages internal auditors to develop their core skills and competencies in the area of risk assessment and Big Data	The overall response rate to the questionnaires is relatively low at 28.3%. A low response rate may raise concerns about the

	internal auditing for listed firms in India	head of accounts of each company. The overall response rate was 28.3%. The results were derived by applying multiple regression method and the three determinants turned out to be significant	and Analytics for delivering better services to the auditees, the board of directors and the AC members.	representativeness of the sample and the generalizability of the findings.
Barkhordar et al. (2021)	Factors that influencing the internal auditing effectiveness and then evaluating the role of this department in risk management and internal controls of Keshavarzi bank	This research is applied and a descriptive. Required data were collected from 78 bank experts in different organizational categories including internal auditors and inspectors, senior managers and experts in charge of Keshavarzi bank by questionnaire in 2019. The research hypotheses were analyzed by using SPSS software and the statistical method of Smart PLS software	The results showed that the factors of internal auditing independence, internal auditor's competence, management support of internal audit, internal auditing size and the relationship of internal and independent auditors had a significant positive effect on the effectiveness of internal auditing.	The study does not thoroughly investigate the reasons behind this lack of significant impact on risk management.

		with structural equation modeling.	
Almahuzi (2020)	Effectiveness of internal audits in the Saudi Arabian public sector.	Data were gathered using a mixed methods approach consisting of semi-structured interviews and a questionnaire. A total of 36 semi-structured interviews was conducted to gain the participants' views on the nature of internal audits in the Saudi public sector and of the issues affecting the effectiveness of the audits	The findings showed that the key external factors affecting internal audit effectiveness were top management support, organisational culture and independence of the internal audit. The first ordinary least squares (OLS) regression model indicated that, of these external factors, top management support was the most significant impacting internal audit effectiveness. The second OLS regression model suggested that, of the internal factors, the competence of internal

Kukuiah (2019)	Factors that influence internal audit effectiveness in the Ghanaian Public Sector. To	To sample the respondents for the study, purposive and stratified random sampling techniques were adopted and questionnaire was used to solicit information from 130 internal auditors in the study area.	auditors was the primary driver of internal audit effectiveness. The study found out that, independence of internal auditors, competence of internal auditors and control environment have significant positive influence on internal audit effectiveness in the public sector in the Central Region.	Focusing on the Ghanaian Public Sector restricts generalizability to other public sectors or countries with different cultural, political, or economic contexts.
Ganji et al. (2023)	Impact of effectiveness of internal audit on the quality of internal audit in companies listed in TSE.	The questionnaire method has been employed to examine the said topic. The questionnaire's primary source of information was the Accounting and Auditing Organizations for Islamic Financial Institutions (AAOIFI) Governance Standards.	The study has found that the effective execution of internal Shariah audit is positively linked with the competency and performance of internal Shariah audit. Meanwhile, the other two variables, i.e. being independent and Shariah supervisory board have been	While the study utilized structural equation modeling (SEM) to analyze the data, there was methodological limitations associated with this approach, such as model misspecification

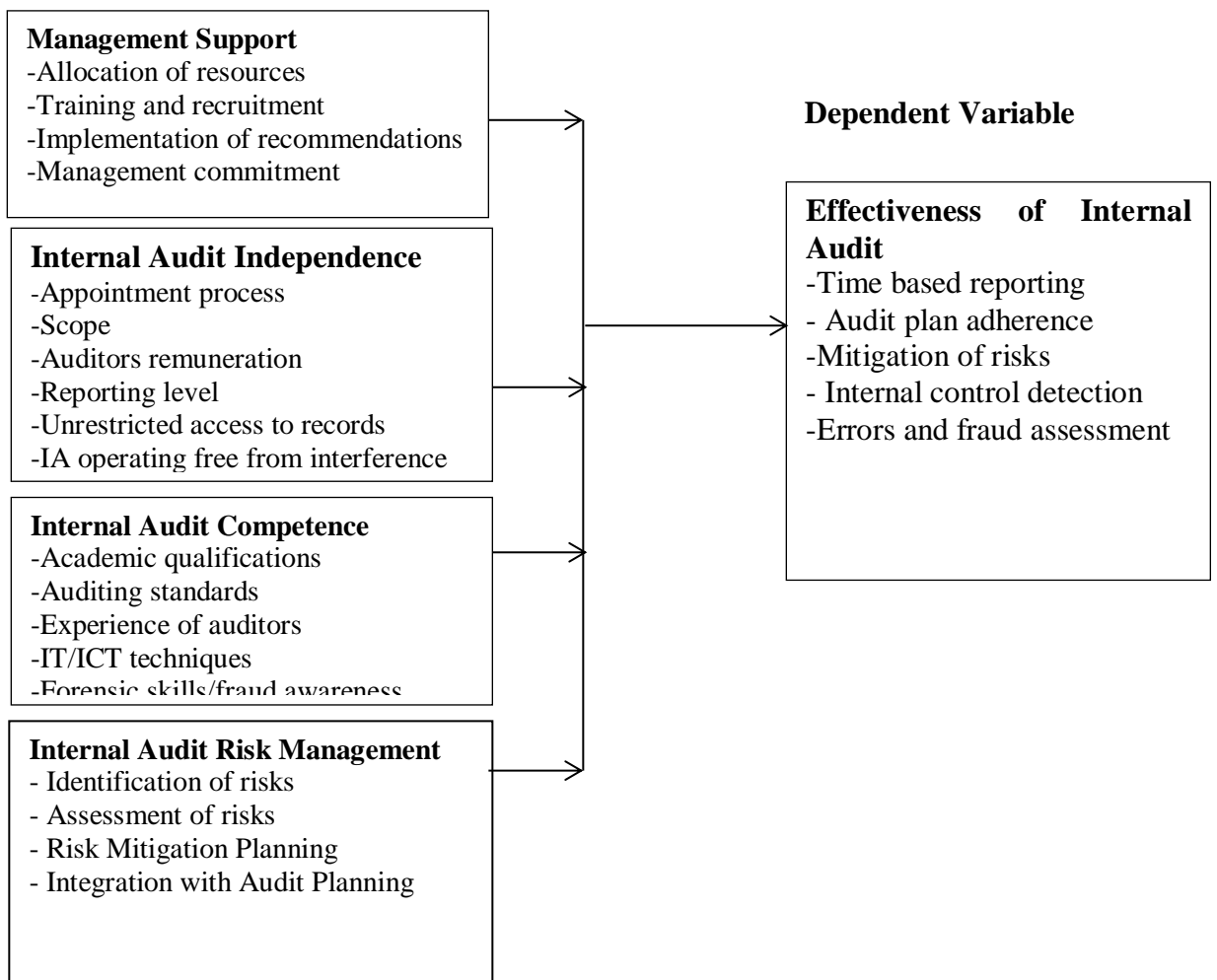
			discovered to be positively or sample size related with internal Shariah requirements. audit effectiveness. Nonetheless, there is no significant contribution
Ta and Doan (2022)	Four factors affecting internal audit effectiveness in Vietnam, namely, independence of internal audit, the competence of internal auditors, management support for internal audit, and quality of internal audit work	Quantitative and qualitative evaluations were conducted, including a logistics regression model and other analyses, using SPSS software. Through semi-structured in-depth interviews and an online survey, 144 responses were obtained from internal Vietnamese auditors of nonfinancial companies listed on the Vietnamese stock market in 2021.	The results revealed two factors (independence of internal auditor and management support for internal audit) with a positive influence on internal audit effectiveness, whereas the competence of internal auditors and quality of internal audit work did not affect internal audit effectiveness.
Alqudah, Amran and Hassan (2019)	Factors affecting internal audit effectiveness in the	The study used primary sources of data through questionnaires. A cross-sectional survey design was	The study found that there existed significant positive relationships between the
			While the study employed both quantitative and qualitative evaluations, there may be methodological limitations associated with the use of a logistics regression model and SPSS software.
			Ethiopian private commercial banks,

Ethiopian private commercial banks.	employed, purposive sampling method was used and data were collected using structured questionnaires	factors (Independence and objectivity of internal auditors, Competency of internal audit staffs, Existence of audit committees) and internal audit effectiveness.	limiting generalizability to other countries or types of organizations. The study employed purposive sampling, which may introduce sample selection bias and limit the generalizability of findings.
-------------------------------------	--	---	---

2.6 Conceptual framework

This facilitates the reader's understanding of the hypothesized linkages between the variables in the study and visually represents them. The independent factors in this study are management support, internal audit independence, internal audit competence, and internal audit risk management. The dependent variable is the efficacy of internal audit.

Independent variables



Adopted from Ratmono and Darsono (2022)

Figure 2.1: Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

A formal overview of the analysis methods to be carried out in this proposal is provided in this chapter. It covers the following areas; research philosophy, research design, study area, target population, sample size and sampling techniques, data collection instruments and procedures, piloting, validity and reliability of research instruments, data analysis and ethical considerations.

3.2 Study Area

Research conducted in Western Region, Kenya region comprising of counties of Kakamega, Vihiga, Busia and Bungoma. The region has 15 registered Deposit taking Saccos. The Saccos are Invest and Grow Sacco, Wevasity Sacco, Afya Sacco, Police Sacco, Ukulima, Mwalimu National, Kussco sacco, Mudete Sacco in Kakamega County; Vihiga County Farmers Sacco and Vihiga County Sacco in Vihiga County; Faridi Sacco and Elimu Sacco in Busia County; Ng'arisha Sacco, Metropolitan Sacco, Stawisha Sacco in Bungoma County.

3.3 Research Design

According to Sekaranm and Bougie (2011), a research design is a plan that regulates every step of a research project, from coming up with ideas and questions to presenting the

results. This research used a causal design in conjunction with a descriptive survey methodology. The primary goal of a descriptive survey is to characterize a population in regard to relevant factors, with the secondary objective of determining the nature of the relationships between these variables (Essendi, 2013). The study investigated how the dependent variable was influenced by the independent variable.

3.4 Target Population

A researcher's population consists of all the individuals, events, or things that are the focus of their study (Sekaran and Bougie, 2011). Fifteen SACCOs in Kenya that accept deposits made up the study's population (SASRA, 2020). The study targeted 129 internal auditors, accountants, finance officers and chief executive officers in all the 15 DT-SACCOS as shown in Table 3.1. The distribution per Sacco is as shown in Appendix II.

Table 3. 1: Target Population

Population Units	Population
Internal Auditors	39
Accountants	45
Finance Officers	30
Chief Executive Officers	15
Total	129

Source: SASRA (2023)

3.5 Sample Design and Sampling Procedure

The goal of sampling is to obtain a statistically valid representation of a population's features by picking a subset of that population's members or items at random (Fancera, 2023). Krejcie and Morgan formula will be used to determine the population

$$S = \frac{X^2 NP (1-P)}{d^2 (N-1) + X^2 P (1-P)}$$

Where

S sample size

X² is 1.96x 1.96= 3.841

N Target population

P proportion 0.05

$$S = \frac{3.8416 \times 129 \times 0.5 (1 - 0.5)}{0.05^2 (129-1) + 3.8416 \times 0.5(1 - 0.5)} = 96.76007498 \approx 97$$

Respondents.

$$0.05^2 (129-1) + 3.8416 \times 0.5(1 - 0.5)$$

Stratified random sampling was used to select 97 respondents from a target of 129

Table 3. 2: Sample Size

Population Units	Target Population	Sample Size
Internal Auditors	39	29
Accountants	45	34
Finance Officers	30	23
Chief Executive Officers	15	11
Total	129	97

3.6 Data Collection Instruments and Procedures

3.6.1 Data Type

Primary data was used for the study. Primary data, gathered firsthand by researchers, holds immense value in providing fresh insights and original perspectives. Primary data offers direct access to unfiltered information from the target population, allowing researchers to delve into the nuances of the research topic.

3.6.2 Data Collection Instruments

Primary data was collected through the use of a standardized self-administered questionnaire. Research greatly benefits from the utilization of primary data collected through self-administered structured questionnaires. This technique is an excellent tool for anyone seeking reliable and comprehensive data due to its ability to provide control, efficiency, time efficiency, minimal bias, and extensive geographical coverage. The

questions were divided into three sections. Part 2 of the study involved collecting data on specific independent variables using closed-ended statements. Part 3 focused on gathering opinions about the effectiveness of auditing SACCOs. Part 1, on the other hand, tried to gain general information from the respondents through statements. A five-point Likert-type scale was implemented, with values ranging from one (Strongly Disagree) to five (Strongly Agree). The study involved two research assistants.

3.6.3 Data Collection Procedures

Primary data was facilitated by use of questionnaire formation. This led to formulation of introductory letter and later obtained letter from postgraduate directory studies. Later NACOSTI license was attained which accompanied the research questionnaires.

3.7 Reliability and Validity of Instruments

A pilot study was conducted on a sample of 2 Deposit Taking Saccos representing 10% of the entire sample size as recommended by Lowe (2019) in Nairobi County. The study piloted 10 respondents who were excluded from the main study sample. This took two weeks prior to actual data collection. The results of the pilot study permitted preliminary testing of the hypotheses that leads to testing more precise hypotheses in the main study.

3.7.1 Reliability of the Instruments

Reliability of a research instrument refers to its capacity to consistently generate consistent outcomes or data after undergoing validated trials. The reliability was assessed using the

Cronbach Alpha technique. Ahmad, Yussiff, and Mustapha (2015) assert that Cronbach's alpha can be classified as excellent, satisfactory, acceptable, inadequate, or unsatisfactory. The tools utilized to quantify the variables in this investigation had a substantial degree of consistency, as evidenced by a significant alpha value (preferably exceeding 0.7).

3.7.2 Validity of the Instrument

Validity is simply the degree to which a measuring instrument is relevant to the research, or to what degree it covers the issue adequately (Cheruiyot, 2021). The study assessed two types of validity namely; construct and content validity. Construct validity is the extent to which the measure 'behaves' in a way consistent with theoretical hypotheses and represents how well scores on the instrument are indicative of the theoretical construct (Pallant, 2011). Construct validity was tested by use of Factor analysis.

Content validity is based on expert opinion after analyzing data collection tool (Lamm, Lamm & Edgar, 2020). To effectively evaluate content validity, Ismail and Zubairi (2022) suggest the use of a panel of experts of which supervisors and measured by use of content validity index (CVI). (Flake, Davidson, Wong & Pek, 2022) recommends a content validity index of above 0.7 as acceptable.

3.8 Data Analysis

Waguthii (2021) defines data processing as the actions taken on a dataset with the goal of obtaining the desired information in a suitable format, including but not limited to tables,

graphs, reports, and statistics. According to their perspective, data analysis entails the systematic organization, arrangement, and interpretation of the obtained data in order to establish order, structure, and significance. Anderson and Cole (2023) say that once researchers have gathered data, they need to be able to consistently interpret it. The technique consists in grouping of surveys, editing and coding of responses, subsequently processing the processed data using the SPSS tool. Analyzed at a significance level of 0.05 the descriptive statistics (frequencies, percentages and averages) as well as inferential statistics (correlation and regressions) were applied. The results were put out as tables and models. For every independent variable, simple linear regression equations were developed as follows;

$$Y = \alpha + \beta_1 X_1 + \varepsilon$$

$$Y = \alpha + \beta_1 X_2 + \varepsilon$$

$$Y = \alpha + \beta_1 X_3 + \varepsilon$$

$$Y = \alpha + \beta_1 X_4 + \varepsilon$$

Where Y is Effectiveness of internal audit

β_0 is the regression constant,

$\beta_1, \beta_2, \beta_3$ and β_4 are the coefficients of independent variables,

X_1 is Top management support

X_2 is Internal audit independence

X_3 is Internal audit competence

X_4 is Internal audit risk management

ε is error term

The multiple regression equation was as follows:

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

Where Y is the dependent variable (Effectiveness of internal audit),

β_0 is the regression constant,

$\beta_1, \beta_2, \beta_3$ and β_4 are the coefficients of independent variables,

X_1 is Top management support

X_2 is Internal audit independence

X_3 is Internal audit competence

X_4 is Internal audit risk management

ε is error term

3.8.1. Multiple Regression Model Assumptions

Diagnostic tests were run to check if the assumptions of multiple regression and Pearson correlation were correct before inferential statistics were applied. It is as follows.

Normality tests: Normality tests are statistical procedures employed to assess whether a set of data follows a distribution that is normal. In regression analysis, these tests are applied to the residuals obtained from the regression model. There are various normality tests, each with its own strengths and weaknesses. The common tests involve

Kolmogorov-Smirnov, Shapiro-Wilk test and Anderson-Darling test. Q-Q plot showed departure level in test for normality (Ghasemi & Zahedias, 2012)

Multicollinearity: refers to a situation in regression analysis where there is a substantial association for certain variables. This correlation makes it challenging to accurately assess the individual influence. Although the coefficient of R^2 suggests that the presence of multicollinearity does not impact the overall fit of the model, it does have a substantial negative effect on the accuracy and reliability of the projected coefficient. The Variance Inflation Factor and Tolerance level were utilized to evaluate the existence of multicollinearity. A VIF (Variance Inflation Factor) is considered acceptable if it is less than 10 or if the tolerance level is greater than 0.1.

Test of Linearity is a core assumption in regression analysis that stipulates the existence of a linear association for variables. Detecting violations of linearity is crucial for ensuring the validity and reliability of regression analysis. If the linearity assumption is not met, the model may produce biased parameter estimates, leading to inaccurate interpretations and conclusions.

3.9 Ethical Consideration

The research was done in line with established ethical guidelines, which are quite crucial particularly in cases involving human participants. These ethical considerations guaranteed the preservation of professionalism during the research process, which encompassed the following: the respect of respondents' anonymity, privacy, and

confidentiality, the avoidance of deceptions or exaggerations, the treatment of participants with dignity, the avoidance or declaration of conflicts of interest, such as those related to funding, honest behavior, and transparency. There was no form of pressure or incentive used to inspire someone to be a research participant. Consulted were the pertinent authorities, committees, and officials; NACOSTI will get a research license from them.

Strict recognition of information sources and their authors helped to respect intellectual property rights and conform all research activities to the ethical guidelines of the responders. At all costs, scientific dishonesty such as plagiarism was avoided.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter contains the results, conclusions, and observations of the analysis conducted to examine the factors that influence the effectiveness of internal audits among Deposit Taking Saccos in Western Kenya. The observed the impact of management support, internal audit independence, internal audit competence, and internal audit risk management on the effectiveness of internal audits in Saccos located in Western Kenya. The results were subsequently analyzed and conveyed through the use of tables and models.

4.2 Response Rate

In this study, a total of 97 questionnaires were administered to the sampled respondents, 74 were successfully completed by the respondents which is a response rate of 76.3% of the total questionnaires. According to Richard (2005), a minimum of 70% was considered both desirable and doable. This study's response rate of 76.3% is considered acceptable since it is higher than the 60% threshold.

4.3 Reliability and Validity Tests

4.3.1 Reliability Test

Reliability tests were performed for each variable using Cronbach alpha, yielding a range of 0.717 to 0.811. A Cronbach alpha coefficient more than 0.7 was considered reliable.

Table 4. 1: Reliability.

Variable	N	Cronbach alpha
Management support	6	0.767
Internal audit independence	8	0.773
Internal audit competence	8	0.826
Internal audit risk management	8	0.843
Internal audit effectiveness	8	0.877

Source: Primary Data (2024)

4.3.2 Validity Test

To ensure content validity, the questionnaires were created with the assistance of the researcher's supervisor. The supervisor's advice led to enhancements in the contents and perceptions of the devices. The questionnaire was designed to ensure that each item was relevant and connected to the overall purpose. This ensured that any inquiries pertaining to the research were addressed.

Table 4. 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.812
Bartlett's Test of Sphericity	Approx. Chi-Square	913.569
	Df	45
	Sig.	.000

Source: Primary Data (2024)

The KMO evaluates the appropriateness of data for doing a factor analysis. The range of values for factor analysis suitability is from 0 to 1, with values closer to 1 indicating high stability. The KMO score of 0.812 in this example indicates data suitable. It signifies that the variables in the dataset are sufficiently correlated, allowing for meaningful interpretation. The calculated test statistic is 913.569, and it has 45 degrees of freedom. The significance value (Sig.) of .000 indicates that the matrix is considerably distinct implying that the variables are interconnected and appropriate for factor analysis.

Table 4.3: Communalities

Communalities	Initial	Extraction
----------------------	----------------	-------------------

Composition of internal audit is compliant to auditing standards	1.000	.677
The internal audit offers appropriate suggestions for improving the organizational operations.	1.000	.722
The internal audit department formulates suitable annual audit plans.	1.000	.773
Basically audit internally evaluates whether the company missions align with the organizational goals.	1.000	.606
Basically audit internally improves company efficiency.	1.000	.558
The internal audit assesses the efficacy and efficiency of operations and programs.	1.000	.760
The audit internally easily shares the results of the engagement.	1.000	.839
The internal audit department provides a systematic procedure to verify the successful implementation of corrective actions.	1.000	.902
The purpose of internal audit is to enhance management efficiency.	1.000	.815
The audit assesses the accuracy and honesty of information.	1.000	.852

Source: Primary Data (2024)

The initial communalities for all variables are 1.000, indicating that each variable initially explained all of its own variance. The values of the communalities after extraction range from .558 to .902, suggesting that the extracted components account for a substantial portion of the variance in each variable. Higher communalities indicate that the variable is well-represented by the extracted components, while lower communalities suggest that additional factors may be influencing the variable. Overall, these results suggest that the variables are suitable for further analysis using PCA, as the extracted components explain a significant portion of the variance in each variable.

Table 4. 4: Component Matrix

	Component Factor Loadings
Composition of internal audit is compliant to auditing standards	.823
The internal audit provides suitable recommendations for enhancing the organizational procedures.	.850
The internal audit department formulates suitable annual audit plans.	.879
The internal audit evaluates whether the organizational missions align with the organizational objectives.	.778
Internal audit enhances organizational efficiency.	.747
The internal audit assesses the efficacy and efficiency of operations	.872
The internal audit promptly informs the outcomes of the engagement.	.916
The internal audit department implements a follow-up procedure to verify the successful implementation of corrective measures.	.950
The purpose of internal audit is to enhance management efficiency.	.903
The audit assesses the accuracy and honesty of information.	.923
a. 1 Extracted components.	

Source: Primary Data (2024)

These results present the factor loadings for each variable after conducting Principal Component Analysis (PCA) to extract components. Factor loadings represent the correlation between each variable and the extracted component. In this case, the factor loadings range from .747 to .950 for the single component extracted which were above 0.4. Each variable shows a strong positive correlation with the extracted component, suggesting that they are all closely related to the underlying factor identified by PCA. This

suggests that the identified component represents a coherent construct capturing various aspects of internal audit effectiveness.

4.4 Descriptive Information on Demographics

Demographics provide utmost importance for the authenticity and generalizability of the results, as well as for the subsequent discussions of the findings. Therefore, this part shows the background information of the respondents, which is regarded as essential for debates in this study including gender, age, education level, and the length of current position.

Table 4.5: Descriptive Information on Demographics

Demographics (N=74)	Measure	F	%
Age	Below 25 years	0	0.00
	25-34 years	11	14.9
	35-44 years	43	58.1
	45-54 years	14	18.9
	Over 55 years	6	8.1
Education Level	Certificate	0	0.00
	Diploma	20	27
	Degree	38	51.4
	Post Graduate	16	21.6
	Others	0	0.00
Working Experience	1-5 yrs	2	2.7
	6-10 yrs	29	39.2
	11-15 yrs	35	47.3
	Over 15 yrs	8	10.8

Source: Primary Data (2024)

The results further revealed that 14.9% of respondents were between 25 and 34 years, 58.1% were between 35 and 44 years, between 45 and 54 years were 18.9% while 8.1% were over 55 years. The majority of respondents falling within the age range of 35 to 44

years (58.1%) indicates that mid-career professionals play a significant role on internal audit. This age group may possess a balance of experience and adaptability, potentially contributing to the effectiveness of audit processes and practices.

Education wise 51.4% had bachelors degree while diplomas were 27.0%. Post graduates were 21.6% of the respondents. Professionals with bachelor's degrees and postgraduate qualifications may possess the analytical skills, critical thinking abilities, and specialized knowledge necessary to excel in audit roles and drive organizational improvement.

Lastly, respondents working in their current position for between 11 and 15 years were 47.3%, between 6 and 10 years were 39.25 and over 15 years were 10.8%. However, between 1 and 5 years were 2.7% of the respondents. The majority of respondents (47.3%) have been in their current positions for between 11 and 15 years, indicating a relatively stable and experienced workforce. Longer tenure may contribute to greater institutional knowledge, familiarity with organizational processes, and proficiency in performing audit responsibilities, thereby enhancing internal audit effectiveness.

4.5 Descriptive statistics

The descriptive analysis for this section included percentages, frequencies, means, and standard deviation to demonstrate the respondents' responses. The following tables display the outcomes for each measure.

4.4.1 Management support and Internal audit effectiveness

Table 4.6: Management support

Management support	S Agree	Agree	F Agree	Disagree	SDisagree	Mean	S.D
Management empowers internal audit to fulfil its duties and commitments.	37.8 (28)	41.9 (31)	14.9 (11)	1.4 (1)	4.1 (3)	4.08	0.98
The management promptly implements remedial measures in response to suggestions made by internal audits.	40.5 (30)	29.7 (22)	9.5 (7)	16.2 (12)	4.1 (3)	3.86	1.23
Senior management has responded to internal audit reports in a reasonable manner.	36.5 (27)	35.1 (26)	12.2 (9)	10.8 (8)	5.4 (4)	3.86	1.19
In order to help IA become more proficient and up to speed with the profession, management offers training.	35.1 (26)	37.8 (28)	13.5 (10)	9.5 (7)	4.1 (3)	3.91	1.11
Management acts quickly in corrections depending on recommendations from internal audits.	32.4 (24)	48.6 (36)	8.1 (6)	6.8 (5)	4.1 (3)	3.99	1.03
Senior management knows the requirements and fundamental resources of internal audits.	37.8 (28)	37.8 (28)	8.1 (6)	12.2 (9)	4.1 (3)	3.93	1.15
The department of internal audits has enough personnel to effectively handle their duties.	41.9 (31)	29.7 (22)	13.5 (10)	10.8 (8)	4.1 (3)	3.95	1.17
The management is dedicated on fortifying the internal audit division.	35.1 (26)	44.6 (33)	10.8 (8)	5.4 (4)	4.1 (3)	4.01	1.027
Internal audit receives help from senior management to carry out its obligations.	36.5 (27)	40.5 (30)	13.5 (10)	4.1 (3)	5.4 (4)	3.99	1.079
When making decisions, management consults the internal auditor's advice, critiques	44.6 (33)	29.7 (22)	9.5 (7)	12.2 (9)	4.1 (3)	3.99	1.188

Source: Primary Data (2024)

From Table 4.6, a significant proportion (37.8% strongly agree, 41.9% agree) indicates support from senior management for internal audit functions, with minimal disagreement (1.4% disagree, 4.1% strongly disagree). The mean score of 4.08 and standard deviation of 0.98 suggest strong agreement with low variability in perceptions. This indicates a positive organizational culture that values and supports internal audit, which can contribute to improved effectiveness and efficiency in audit processes. While a considerable portion (40.5% strongly agree, 29.7% agree) perceives management's timely corrective action, some respondents (16.2% disagree, 4.1% strongly disagree) express reservations. A mean of 3.86 and SD of 1.23 suggest moderate agreement with variability in perceptions. This underscores the importance of prompt action on audit recommendations to address identified issues and improve organizational processes.

A significant majority (36.5% strongly agree, 35.1% agree) perceives the response to internal audit reports by senior management as reasonable, with minimal disagreement (5.4% disagree, 10.8% strongly disagree). The mean score of 3.86 and standard deviation of 1.19 suggest strong agreement with low variability in perceptions. This indicates effective communication and collaboration between internal audit and senior management, facilitating constructive responses to audit findings. While a notable proportion (35.1% strongly agree, 37.8% agree) acknowledges management's support through training, some respondents (9.5% disagree, 4.1% strongly disagree) express reservations. A mean of 3.91 and SD of 1.11 suggest moderate agreement with variability in perceptions. This highlights the importance of investing in the professional

development of internal audit staff to enhance their capabilities and keep them abreast of evolving practices and standards.

A significant majority (32.4% strongly agree, 48.6% agree) perceives management's timely corrective action, with minimal disagreement (6.8% disagree, 4.1% strongly disagree). The mean score of 3.99 and standard deviation of 1.03 suggest strong agreement with low variability in perceptions. This underscores the importance of proactive management response to address audit findings promptly and effectively. A considerable portion (37.8% strongly agree, 37.8% agree) perceives senior management's awareness of internal audit's needs, with minimal disagreement (8.1% disagree, 12.2% strongly disagree). A mean of 3.93 and SD of 1.15 suggest strong agreement with low variability in perceptions. This indicates effective communication and support from senior management, facilitating the provision of necessary resources for internal audit functions.

While a notable majority (41.9% strongly agree, 29.7% agree) perceives the sufficiency of internal audit staff, some respondents (13.5% disagree, 10.8% strongly disagree) express reservations. The mean score of 3.95 and standard deviation of 1.17 suggest strong agreement with low variability in perceptions. This highlights the importance of adequate staffing to ensure the effectiveness and efficiency of internal audit functions. A significant proportion (35.1% strongly agree, 44.6% agree) acknowledges management's commitment to strengthening the internal audit division, with minimal disagreement (5.4% disagree, 4.1% strongly disagree). A mean of 4.01 and SD of 1.027 suggest strong

agreement with low variability in perceptions. This indicates a proactive approach from management in enhancing internal audit functions to meet organizational objectives.

A significant majority (36.5% strongly agree, 40.5% agree) perceives senior management's support for internal audit functions, with minimal disagreement (4.1% disagree, 5.4% strongly disagree). The mean score of 3.99 and standard deviation of 1.079 suggest strong agreement with low variability in perceptions. This indicates a consistent level of support from senior management, which can positively influence internal audit effectiveness and efficiency. While a considerable proportion (44.6% strongly agree, 29.7% agree) perceives management's use of internal audit information for decision-making, some respondents (12.2% disagree, 4.1% strongly disagree) express reservations. A mean of 3.99 and SD of 1.188 suggest strong agreement with variability in perceptions. This underscores the importance of leveraging internal audit insights to inform strategic decision-making processes within the organization.

4.4.2 Internal audit independence and Internal audit effectiveness

Table 4. 7: Internal audit independence

Internal audit independence	Strongly Agree	Agree	Fairly Agree	Disagree	Strongly Disagree	Mean	S.D
Internal audit personnel assignments are regularly rotated.	33.8 (25)	27 (20)	21.6 (16)	8.1 (6)	9.5 (7)	3.68	1.28
Internal audit staff are not required to carry out non-audit tasks.	31.1 (23)	21.6 (16)	12.2 (9)	25.7 (19)	9.5 (7)	3.39	1.40
The Internal Auditor is granted unfettered access to all aspects of the organization, including operations, staff, assets, and transaction records.	35.1 (26)	23 (17)	23 (17)	10.8 (8)	8.1 (6)	3.66	1.29
Internal auditors are encouraged to incorporate any audit discoveries into their audit reports.	37.8 (28)	24.3 (18)	17.6 (13)	9.5 (7)	10.8 (8)	3.69	1.35
The internal audit is conducted independently without any interference in carrying out its responsibilities.	27 (20)	20.3 (15)	20.3 (15)	16.2 (12)	16.2 (12)	3.26	1.43
The internal audit staff demonstrates a satisfactory level of independence in carrying out their professional responsibilities and tasks.	33.8 (25)	21.6 (16)	17.6 (13)	18.9 (14)	8.1 (6)	3.54	1.35
The internal audit personnel does not evaluate certain operations for which they had previous responsibility.	35.1 (26)	18.9 (14)	20.3 (15)	17.6 (13)	8.1 (6)	3.55	1.35
The internal audit staff is granted unrestricted access to all information, departments, and individuals within the organization.	36.5 (27)	13.5 (10)	17.6 (13)	20.3 (15)	12.2 (9)	3.42	1.462
Internal auditors have the authority to incorporate any audit findings into their job and report them immediately to the appropriate entity.	35.1 (26)	23 (17)	14.9 (11)	16.2 (12)	10.8 (8)	3.55	1.396
The internal audit function delivers reports to the board of directors, specifically the audit committee.	39.2 (29)	17.6 (13)	20.3 (15)	13.5 (10)	9.5 (7)	3.64	1.371

Source: Primary Data (2024)

The results in Table 4.7, A notable portion (33.8% strongly agree, 27% agree) supports the periodic rotation of internal audit staff assignments, indicating a perceived enhancement of independence. However, a considerable proportion (17.6% disagree, 9.5% strongly disagree) expresses reservations. The mean score of 3.68 and standard deviation of 1.28 suggest moderate agreement with variability in perceptions. This highlights the importance of periodic rotation to mitigate potential conflicts of interest and enhance independence. While a significant percentage (31.1% strongly agree, 21.6% agree) acknowledges the non-performance of non-audit functions by internal audit staff, there is notable disagreement (25.7% disagree, 9.5% strongly disagree). A mean of 3.39 and SD of 1.40 suggest moderate agreement with variability in perceptions. This underscores the importance of ensuring that internal audit functions remain distinct from non-audit activities to preserve independence and objectivity.

A substantial majority (35.1% strongly agree, 23% agree) affirm the free and unrestricted access of internal auditors. However, a notable proportion (10.8% disagree, 8.1% strongly disagree) expresses reservations. The mean score of 3.66 and standard deviation of 1.29 suggest moderate agreement with variability in perceptions. This underscores the importance of ensuring unrestricted access to facilitate thorough audit processes and maintain independence. While a considerable percentage (37.8% strongly agree, 24.3% agree) perceives internal auditors' freedom to include audit findings, some respondents (10.8% disagree, 9.5% strongly disagree) express doubts. A mean of 3.69 and SD of 1.35 suggest moderate agreement with variability in perceptions. This highlights the

importance of fostering a culture of openness and transparency in reporting audit findings to ensure the integrity of audit reports.

A significant portion (27% strongly agree, 20.3% agree) perceives internal audit as free from intervention. However, a notable proportion (16.2% disagree, 16.2% strongly disagree) expresses skepticism. The mean score of 3.26 and standard deviation of 1.43 suggest moderate agreement with variability in perceptions. This underscores the importance of safeguarding internal audit independence from undue influence to maintain the integrity of audit processes. While a significant percentage (33.8% strongly agree, 21.6% agree) views internal audit staff as sufficiently independent, there is notable disagreement (18.9% disagree, 8.1% strongly disagree). A mean of 3.54 and SD of 1.35 suggest moderate agreement with variability in perceptions. This indicates a need for continuous efforts to strengthen and maintain the independence of internal audit staff to ensure the effectiveness of audit functions.

A notable proportion (35.1% strongly agree, 18.9% agree) supports the non-assessment of specific operations previously handled by internal audit staff, indicating a perceived enhancement of independence. However, some respondents (17.6% disagree, 8.1% strongly disagree) express reservations. The mean score of 3.55 and standard deviation of 1.35 suggest moderate agreement with variability in perceptions. This highlights the importance of avoiding conflicts of interest and ensuring impartiality in audit assessments. While a significant majority (36.5% strongly agree, 13.5% agree) affirms internal audit staff's free access, some respondents (20.3% disagree, 12.2% strongly disagree) express

doubts. A mean of 3.42 and SD of 1.462 suggest moderate agreement with variability in perceptions. This underscores the importance of ensuring unfettered access to facilitate thorough audit processes and maintain independence.

A notable portion (35.1% strongly agree, 23% agree) perceives internal auditors' freedom to include audit findings and report directly to the responsible body, indicating a perceived enhancement of independence. However, some respondents (16.2% disagree, 10.8% strongly disagree) express reservations. A mean of 3.55 and SD of 1.396 suggest moderate agreement with variability in perceptions. This highlights the importance of ensuring internal auditors' autonomy in reporting to uphold the integrity of audit processes. While a significant majority (39.2% strongly agree, 17.6% agree) acknowledges internal audit's provision of reports to the board of directors, some respondents (13.5% disagree, 9.5% strongly disagree) express reservations. A mean of 3.64 and SD of 1.371 suggest moderate agreement with variability in perceptions. This underscores the importance of transparent reporting mechanisms to ensure accountability and oversight in audit processes.

4.4.3 Internal audit competence

Table 4. 8: Internal audit competence

Internal audit competence	Strongly Agree	Agree	Fairly Agree	Disagree	Strongly Disagree	Mean	S.D
The internal auditors has sufficient expertise in the comprehensive operations of the department.	37.8 (28)	24.3 (18)	5.4 (4)	31.1 (23)	1.4 (1)	3.66	1.31
Internal auditors excel at risk-based planning on Internal review	41.9 (31)	21.6 (16)	1.4 (1)	28.4 (21)	6.8 (5)	3.64	1.44
Internal auditors has expertise in control evaluation procedures and risk analysis.	45.9 (34)	25.7 (19)	1.4 (1)	23 (17)	4.1 (3)	3.86	1.33
Internal auditors engage in annual continuing professional development training.	47.3 (35)	18.9 (14)	4.1 (3)	25.7 (19)	4.1 (3)	3.80	1.37
Internal audit gets enough funds to effectively perform its tasks.	45.9 (34)	37.8 (28)	8.1 (6)	6.8 (5)	1.4 (1)	4.20	0.95
Deep professional expertise about the general departmental activity is possessed by internal auditors.	45.9 (34)	37.8 (28)	6.8 (5)	5.4 (4)	4.1 (3)	4.16	1.05
In terms of suitably qualified or professional staff, the audit department or division has developed.	39.2 (29)	28.4 (21)	0 (0)	28.4 (21)	4.1 (3)	3.70	1.35
Internal auditors have a proactive approach, taking charge of situations rather than only responding to them.	37.8 (28)	25.7 (19)	2.7 (2)	29.7 (22)	4.1 (3)	3.64	1.361
Internal auditors participate in educational sessions to receive ongoing training.	33.8 (25)	24.3 (18)	8.1 (6)	29.7 (22)	4.1 (3)	3.54	1.336
The auditees and internal auditors communicate with each other.	48.6 (36)	27 (20)	5.4 (4)	17.6 (13)	1.4 (1)	4.04	1.176

Source: Primary Data (2024)

From Table 4.8, A significant portion (37.8% strongly agree, 24.3% agree) perceive internal auditors as possessing adequate professional knowledge. However, a considerable proportion (31.1% disagree, 1.4% strongly disagree) express doubts. The mean score of 3.66 and standard deviation of 1.31 suggest moderate agreement with notable variability in perceptions. This indicates a need for further assessment and potential improvement in the professional knowledge of internal auditors. While a majority (41.9% strongly agree, 21.6% agree) view internal auditors as proficient in risk-based internal auditing planning, there is notable disagreement (28.4% disagree, 6.8% strongly disagree). A mean of 3.64 and SD of 1.44 suggest moderate agreement with considerable variability in perceptions. This indicates a potential gap in the proficiency of internal auditors in risk-based auditing planning, requiring attention and potential training interventions.

A substantial majority (45.9% strongly agree, 25.7% agree) recognize the capability of internal auditors in control assessment and risk analysis techniques. However, a notable proportion (23% disagree, 4.1% strongly disagree) express reservations. The mean score of 3.86 and standard deviation of 1.33 suggest moderate agreement with variability in perceptions. This highlights the need for continuous skill development and refinement of techniques among internal auditors to address potential gaps in capabilities. A significant majority (47.3% strongly agree, 18.9% agree) acknowledge internal auditors' commitment to annual continuous professional development training. However, a notable portion (25.7% disagree, 4.1% strongly disagree) express doubts. A mean of 3.80 and SD of 1.37 indicate moderate agreement with variability in perceptions. This underscores the

importance of ensuring consistent and effective professional development opportunities for internal auditors to enhance their competencies.

A majority (45.9% strongly agree, 37.8% agree) affirm the adequacy of the internal audit budget. Only a small percentage (6.8% disagree, 1.4% strongly disagree) express disagreement. The mean score of 4.20 and standard deviation of 0.95 suggest high agreement with minimal variability in perceptions. This indicates a positive perception of resource allocation for internal audit activities, contributing to their effectiveness and efficiency. A substantial majority (45.9% strongly agree, 37.8% agree) perceive internal auditors as possessing deep professional knowledge. However, a small percentage (5.4% disagree, 4.1% strongly disagree) express doubts. A mean of 4.16 and SD of 1.05 indicate high agreement with minimal variability in perceptions. This suggests a strong perception of internal auditors' expertise in departmental activities, which can positively impact audit effectiveness.

A notable portion (39.2% strongly agree, 28.4% agree) recognize progress in the audit department's staff qualifications. However, some respondents (28.4% disagree, 4.1% strongly disagree) express skepticism. The mean score of 3.70 and standard deviation of 1.35 suggest moderate agreement with variability in perceptions. This underscores the importance of ongoing efforts to enhance the qualifications and professionalism of audit staff. While a significant proportion (37.8% strongly agree, 25.7% agree) view internal auditors as proactive, there is notable disagreement (29.7% disagree, 4.1% strongly disagree). A mean of 3.64 and SD of 1.361 suggest moderate agreement with variability

in perceptions. This highlights the need for internal auditors to enhance their proactive approach to auditing practices to address potential areas of concern before they escalate.

A substantial majority (33.8% strongly agree, 24.3% agree) acknowledge internal auditors' participation in educational seminars for continuous training. However, some respondents (29.7% disagree, 4.1% strongly disagree) express doubts. A mean of 3.54 and SD of 1.336 suggest moderate agreement with variability in perceptions. This underscores the importance of ensuring consistent opportunities for continuous training and professional development. A significant majority (48.6% strongly agree, 27% agree) recognize effective communication between internal auditors and auditees. However, some respondents (17.6% disagree, 1.4% strongly disagree) express reservations. A mean of 4.04 and SD of 1.176 indicate moderate agreement with variability in perceptions. This highlights the importance of fostering open and transparent communication channels between internal auditors and auditees to facilitate effective audit processes.

4.4.4 Internal audit risk management

Table 4. 9: Internal audit risk management

Internal audit risk management	Strongly Agree	Agree	Fairly Agree	Disagree	Strongly Disagree	Mean	S.D
Internal audit evaluates whether risk responses fit the Sacco family's risk tolerance and are appropriate.	25.7 (19)	35.1 (26)	16.2 (12)	21.6 (16)	1.4 (1)	3.62	1.13
Internal audit assesses the likelihood of fraud occurring as well as the organization's approach to managing fraud risk.	40.5 (30)	45.9 (34)	9.5 (7)	2.7 (2)	1.4 (1)	4.22	0.83
There is consideration of risk assessment in the detection of errors	35.1 (26)	16.2 (12)	18.9 (14)	28.4 (21)	1.4 (1)	3.55	1.27
Risk identification and management is a responsibility of all employees of the organization	32.4 (24)	29.7 (22)	13.5 (10)	20.3 (15)	4.1 (3)	3.66	1.24
Risk is analyzed, level is identified by the impact/likelihood e.g. high, medium, low.	33.8 (25)	28.4 (21)	29.7 (22)	6.8 (5)	1.4 (1)	3.86	1.01
Risk Based audit Annual plans are done by the Management	44.6 (33)	21.6 (16)	9.5 (7)	23 (17)	1.4 (1)	3.85	1.26
In the organization, risk assessment is a continuous and permanent process.	40.5 (30)	39.2 (29)	6.8 (5)	12.2 (9)	1.4 (1)	4.05	1.05
Risk matrix is available and shows degrees of likelihood and impact and plots risk scores.	33.8 (25)	21.6 (16)	23 (17)	20.3 (15)	1.4 (1)	3.66	1.185
Implementation of strategies agreed upon aimed at reducing risk factors annually after discussion with management	43.2 (32)	31.1 (23)	10.8 (8)	13.5 (10)	1.4 (1)	4.01	1.104
Risk monitoring is carried out to identify errors in Internal audit independence	39.2 (29)	25.7 (19)	20.3 (15)	13.5 (10)	1.4 (1)	3.88	1.122

Source: Primary Data (2024)

From Table 4.6, a substantial proportion of respondents (25.7% strongly agree, 35.1% agree) acknowledge that risk responses are aligned with the Sacco's risk appetite. This indicates a general satisfaction with risk assessment practices within the organization. The mean score of 3.62, with a standard deviation of 1.13, suggests moderate agreement with this statement, indicating room for improvement. A significant majority (40.5% strongly agree, 45.9% agree) recognize the organization's efforts in evaluating and managing fraud risk. This high level of agreement (with a mean score of 4.22 and a SD of 0.83) underscores the effectiveness of fraud risk management practices.

While a notable portion (35.1% strongly agree, 16.2% agree) acknowledge the consideration of risk assessment in error detection, there is a significant segment expressing disagreement (28.4% disagree, 21.6% strongly disagree). This indicates potential gaps in risk assessment processes, highlighting the need for improvement. The mean score of 3.55, with a standard deviation of 1.27, suggests some variability in perceptions. A sizeable proportion (32.4% strongly agree, 29.7% agree) affirm that risk identification and management are shared responsibilities among all employees. However, the presence of disagreement (20.3% disagree, 15% strongly disagree) indicates possible inconsistencies in understanding or implementation. A mean of 3.66 and SD of 1.24 suggest moderate agreement with some variability in opinions.

A considerable number (33.8% strongly agree, 28.4% agree) recognize the organization's practice of analyzing risk levels based on impact and likelihood. This indicates a structured approach to risk analysis. A mean of 3.86, with a SD of 1.01, suggests a

relatively high level of agreement with minimal variability. A significant majority (44.6% strongly agree, 21.6% agree) acknowledge that management is responsible for developing risk-based audit annual plans. This indicates a top-down approach to audit planning, ensuring alignment with organizational objectives. A mean of 3.85, with a SD of 1.26, suggests a relatively high level of agreement with some variability in perceptions.

A substantial proportion (40.5% strongly agree, 39.2% agree) recognize risk assessment as an ongoing process within the organization. This emphasizes the importance of continual risk monitoring and management. The mean score of 4.05 and standard deviation of 1.05 indicate a high level of agreement with minimal variability, reflecting a shared understanding among respondents. While a significant portion (33.8% strongly agree, 21.6% agree) affirm the availability of a risk matrix, there is notable disagreement (20.3% disagree, 15% strongly disagree). This suggests inconsistencies in the availability or usability of risk assessment tools. A mean of 3.66, with a SD of 1.185, indicates moderate agreement with some variability in perceptions. A considerable majority (43.2% strongly agree, 31.1% agree) acknowledge the implementation of risk reduction strategies after discussions with management. This highlights a collaborative approach to risk management and decision-making. A mean of 4.01 and SD of 1.104 suggest a high level of agreement with minimal variability, indicating a shared understanding among respondents. A notable portion (39.2% strongly agree, 25.7% agree) affirm the practice of risk monitoring to identify errors in internal audit independence. This underscores the organization's commitment to maintaining the integrity and objectivity of internal audit

processes. A mean of 3.88 and SD of 1.122 suggest a moderate level of agreement with some variability in perceptions.

4.4.5 Internal audit effectiveness

Table 4.10: Internal audit effectiveness

Internal audit effectiveness	Strongly Agree	Agree	Fairly Agree	Disagree	Strongly Disagree	Mean	S.D
The IIA Standards are followed when conducting internal audits (ISPPIA)	40.5 (30)	44.6 (33)	10.8 (8)	4.1 (3)	0 (0)	4.22	0.80
Appropriate suggestions are made by internal audit to enhance organizational procedures.	37.8 (28)	37.8 (28)	5.4 (4)	13.5 (10)	5.4 (4)	3.89	1.21
Appropriate annual audit plans are created by internal audit.	39.2 (29)	29.7 (22)	8.1 (6)	23 (17)	0 (0)	3.85	1.18
Internal audit evaluates whether the goals and missions of a company are in line with each other.	32.4 (24)	21.6 (16)	16.2 (12)	27 (20)	2.7 (2)	3.54	1.27
Organizational productivity is increased by internal auditing.	33.8 (25)	50 (37)	10.8 (8)	5.4 (4)	0 (0)	4.12	0.81
The internal audit assesses the efficacy and efficiency of operations and programs.	40.5 (30)	33.8 (25)	14.9 (11)	10.8 (8)	0 (0)	4.04	1.00
Internal audit promptly shares the outcomes of its engagements.	41.9 (31)	33.8 (25)	18.9 (14)	5.4 (4)	0 (0)	4.12	0.91
A follow-up procedure is established by internal audit to guarantee that corrective actions have been successfully carried out.	37.8 (28)	29.7 (22)	8.1 (6)	24.3 (18)	0 (0)	3.81	1.190
Internal audit assesses and enhances the governance and risk management processes' efficacy.	36.5 (27)	33.8 (25)	6.8 (5)	23 (17)	0 (0)	3.84	1.159
The purpose of internal audit is to assess the reliability and truthfulness of financial information.	36.5 (27)	35.1 (26)	20.3 (15)	8.1 (6)	0 (0)	4.00	0.951

Source: Primary Data (2024)

From Table 4.10, a substantial portion, comprising 40.5%, strongly agreed that internal audit is performed in accordance with the IIA Standards (ISPPA), while an additional 44.6% agreed with this statement. This indicates a general consensus among respondents regarding adherence to standards, as reflected in the relatively high mean of 4.22 and a SD of 0.80, suggesting a moderate level of agreement.

Similarly, regarding the appropriateness of recommendations made by internal audit for improving organizational processes, respondents exhibited a mixed response. While 37.8% strongly agreed and an equal percentage agreed with the statement, a notable proportion (13.5%) expressed disagreement. This variation is reflected in the mean of 3.89, with a relatively high SD of 1.21, indicating a wider range of opinions among respondents.

Moreover, concerning the development of annual audit plans, a substantial portion (39.2%) strongly agreed, while 29.7% agreed with the statement. Notably, 23% disagreed, highlighting a disparity in perceptions. A mean of 3.85, coupled with a SD of 1.18, underscores the variability in responses, suggesting differing opinions among respondents regarding the effectiveness of this aspect of internal audit.

Additionally, in assessing the consistency of organizational missions with objectives, opinions varied widely among respondents. While 32.4% strongly agreed and 21.6% agreed with the statement, a significant proportion (27%) expressed disagreement. This divergence is evident in the mean of 3.54 and a relatively high SD of 1.27, indicating a lack of consensus among respondents regarding this aspect of internal audit effectiveness.

Furthermore, regarding internal audit's role in improving organizational productivity, respondents demonstrated a more consistent perception. A notable majority, comprising 83.8%, either strongly agreed or agreed with the statement, reflecting a high level of consensus. This is corroborated by the mean of 4.12 and a low SD of 0.81, suggesting widespread agreement among respondents regarding the effectiveness of internal audit in enhancing productivity.

The responses concerning the review of the effectiveness and efficiency of operations and programs indicated a notable consensus among respondents. A considerable percentage, comprising 40.5%, strongly agreed, while an additional 33.8% agreed with the statement. This overwhelming agreement is reflected in the high mean of 4.04 and a moderate SD of 1.00, suggesting a high level of concurrence among respondents regarding this aspect of internal audit performance.

Likewise, regarding the timely communication of engagement results by internal audit, respondents exhibited a strong consensus. A significant majority, comprising 41.9%, strongly agreed, and an additional 33.8% agreed with the statement. This widespread agreement is supported by the high mean of 4.12 and a relatively low SD of 0.91, indicating a high level of agreement and consistency among respondents regarding the importance of timely communication in internal audit activities.

However, in terms of establishing a follow-up process to ensure that corrective actions have been effectively implemented, respondents' opinions were more divided. While 37.8% strongly agreed and 29.7% agreed with the statement, a substantial proportion

(24.3%) disagreed. This divergence in opinions is reflected in the mean of 3.81 and a relatively high SD of 1.190, indicating a wide range of perspectives among respondents regarding the necessity and effectiveness of follow-up processes in internal audit.

Similarly, regarding the evaluation and improvement of the effectiveness of risk management and governance processes by internal audit, respondents' opinions were somewhat varied. While 36.5% strongly agreed and 33.8% agreed with the statement, a notable proportion (23%) expressed disagreement. This variation is evident in the mean of 3.84 and a SD of 1.159, indicating a degree of uncertainty or disagreement among respondents regarding the role of internal audit in risk management and governance.

Lastly, concerning the review of the reliability and integrity of financial information by internal audit, respondents generally exhibited a high level of agreement. A considerable majority, comprising 36.5%, strongly agreed, and an additional 35.1% agreed with the statement. This consensus is reflected in the high mean of 4.00 and a relatively low SD of 0.951, indicating a high level of agreement among respondents regarding the importance and effectiveness of internal audit in ensuring the reliability and integrity of financial information.

4.6 Assumption of Linear Regression

This study used linear regression based on the following assumptions: multi-collinearity, auto-correlation determined by Durbin-Watson, and a Shapiro-Wilk test for normalcy. The outcomes are detailed below.

4.6.1 Normality

The tests of normality, specifically the Kolmogorov-Smirnov and Shapiro-Wilk tests, assess whether the distribution of data for each variable follows a normal distribution. Normality is an assumption often required for certain statistical analyses.

Table 4.11: Kolmogorov-Smirnova and Shapiro-Wilk

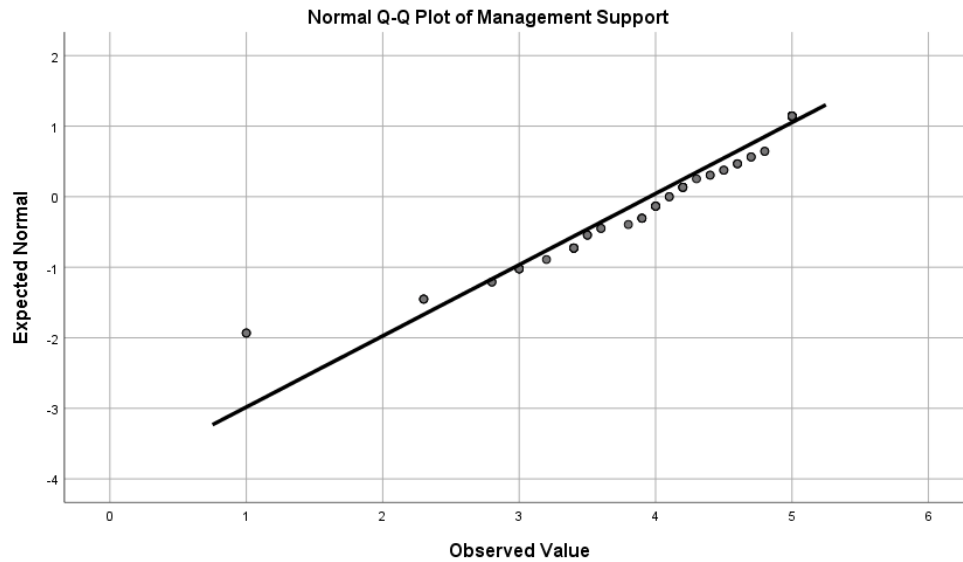
	Kolmogorov-S ^a			Shapiro-W		
	Stat	df	Sig.	Stat	Df	Sig.
Management Support	.146	74	.000	.879	74	.000
Internal Audit Independence	.133	74	.002	.906	74	.000
Internal Audit Competence	.149	74	.000	.872	74	.000
Internal Audit Risk Management	.111	74	.024	.926	74	.000
Internal Audit Effectiveness	.175	74	.000	.875	74	.000

a. Lilliefors Significance Correction

Source: Primary Data (2024)

For the variable "Management Support," both the Kolmogorov-Smirnov and Shapiro-Wilk tests resulted in statistically significant values ($p < .05$), indicating that the data significantly deviate from a normal distribution. Similarly, for the variables "Internal Audit Independence," "Internal Audit Competence," "Internal Audit Risk Management," and "Internal Audit Effectiveness," both tests yielded significant results, suggesting non-normal distributions for these variables as well. Ghasemi and Zahedias (2012) suggest that

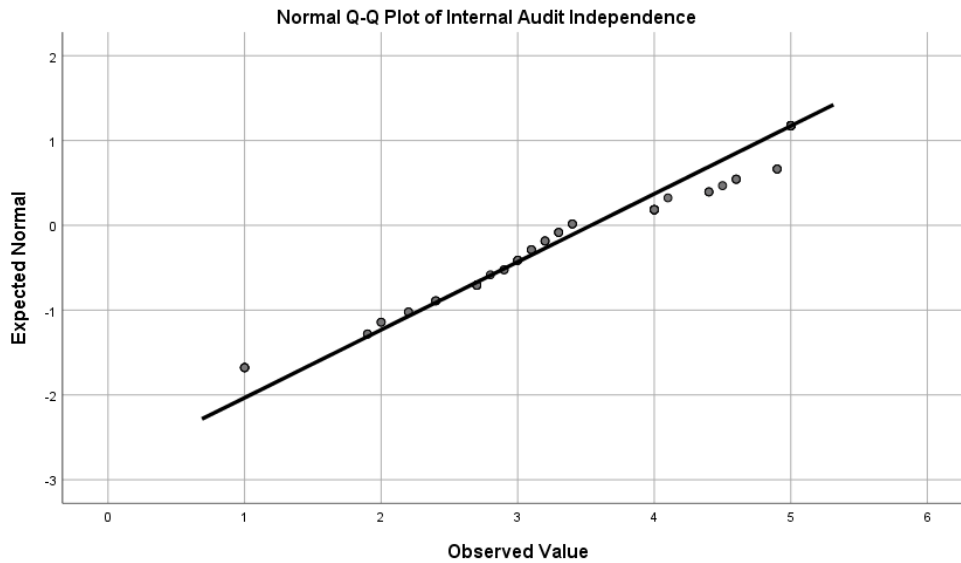
normality be evaluated visually. Figure 4.1 shows that the management's normal Q-Q plot was consistent with the approximation to the line of fit. The data may be used in a regression analysis because it was near normal distribution.



Source: Primary Data (2024)

Figure 4. 1: Normal Q-Q plot of Management support

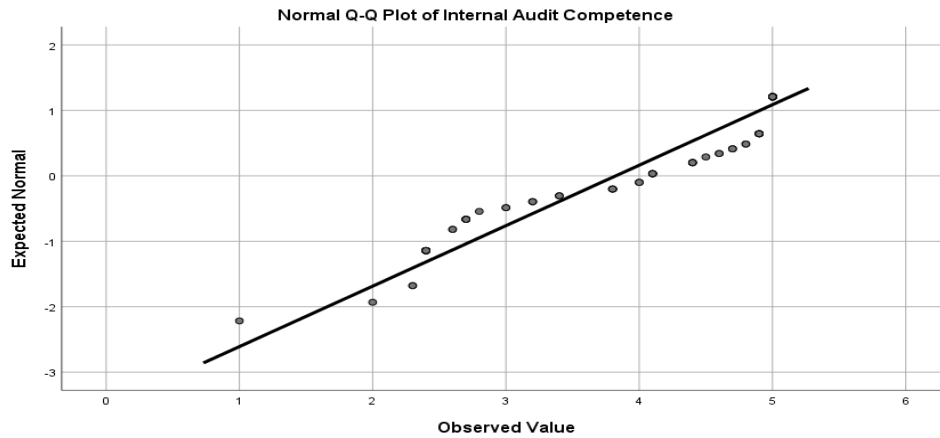
Figure 4.2 shows an internal audit independence normal Q-Q plot; there was no statistically significant departure from the line of fit. Because of this near-normal distribution, parametric tests like linear regression were applicable to the data.



Source: Primary Data (2024)

Figure 4. 2: Normal Q-Q plot of Internal audit independence

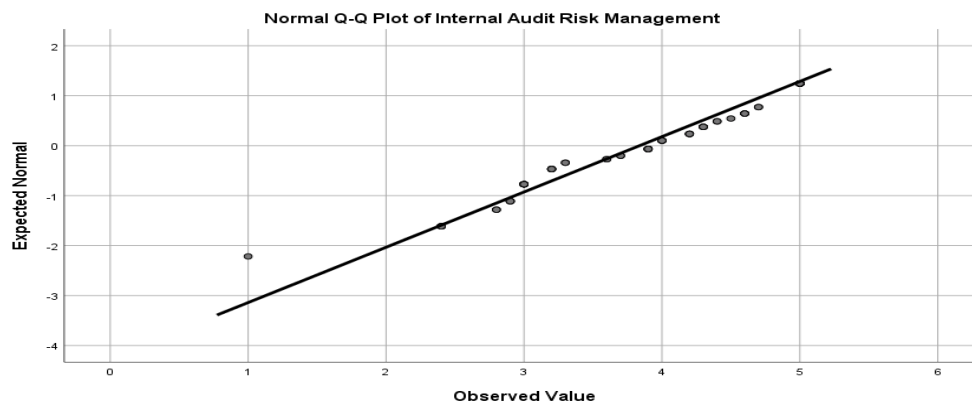
Figure 4.3 shows that the internal audit competency normal Q-Q plot deviates less from the line of fit in comparison to the approximation. Therefore, parametric tests, like linear regression, could be performed on the data because it followed a normal distribution.



Source: Primary Data (2024)

Figure 4. 3: Normal Q-Q plot of Internal audit competence

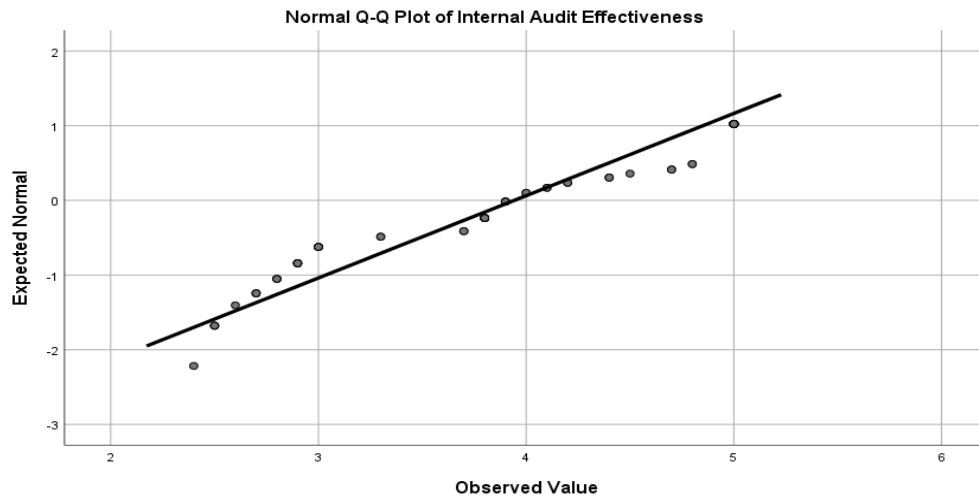
Figure 4.4 shows that the internal audit risk management normal Q-Q plot deviates very little from the line of fit as it does from the approximation. As a result, parametric testing were feasible because the data was close to normal distribution.



Source: Primary Data (2024)

Figure 4. 4: Normal Q-Q plot of Internal audit risk management

Figure 4.5 shows a normal Q-Q plot showing the efficiency of internal audits; the deviation from the line of fit is about the same as the deviation from normalcy. Because of how close the data was to normal distribution, regression analysis was a viable option.



Source: Primary Data (2024)

Figure 4. 5: Normal Q-Q plot of Internal audit effectiveness

4.6.2 Multi-Collinearity Test

Multicollinearity impedes the ability to precisely characterize variables because of their interaction. According to Jingyu Li's (2003) research, which cites work by Besley (1980), researchers frequently utilize a critical value rule of thumb of VIF=10 to assess the presence of excessive correlation. Table 4.13 shows that all of the VIF (Variance Inflation Factor) values are less than 10, indicating that the research variables are not subject to multi-collinearity. Furthermore tolerance values were less than 1 which signify non multi-collinearity

Table 4. 12: Multi-Collinearity

Independent variable	Tolerance	VIF
Management support	0.763	1.311
Internal audit independence	0.660	1.515
Internal audit competence	0.488	2.048
Internal audit risk management	0.393	2.546

Source: Primary Data (2024)

4.7 Pearson Correlation Results

Table 4.14 shows the correlation coefficient (r) values obtained by means of Pearson correlation study. This technique determines the direction (positive or negative) and magnitude (-1 to +1) of the correlation between two ratio/scale or continuous variables.

Table 4. 13: Multiple Correlation Matrix

		MS	IAI	IAC	IARM
MS: Management support	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	74			
IAI: Internal audit independence	Pearson Correlation	.349**	1		
	Sig. (2-tailed)	.002			
	N	74	74		
IAC: Internal audit competence	Pearson Correlation	.418**	.277*	1	
	Sig. (2-tailed)	.000	.017		
	N	74	74	74	
IARM: Internal audit risk management	Pearson Correlation	.413**	.543**	.686**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	74	74	74	74
Internal audit effectiveness	Pearson Correlation	.554**	.611**	.632**	.750**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	74	74	74	74

** . Correlation is significant at the 0.01 level (2-tailed).

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

Source: Primary Data (2024)

According to Table 4.14, there is a positive association between Management support and internal audit effectiveness. The coefficient is 0.554, and the p value is less than 0.01, indicating statistical significance at a 95% confidence level. Therefore, an increase in Management assistance would result in a corresponding improvement in the efficacy of internal audit. The findings are corroborated by a study conducted by Smith et al. (2018) which revealed a substantial and favorable correlation between managerial support and the efficacy of internal audits among a diverse range of multinational firms. The researchers determined that heightened backing from upper-level executives had a positive impact on the efficacy of internal audit activities. In contrast to the reported findings, a study conducted by Lee and Kim (2019) discovered no substantial association for management support and internal audits in a sample of small and medium-sized firms. The researchers proposed that additional factors, such as corporate culture and resource allocation, might exert a greater impact in determining the success of audits.

A p-value of 0.000 was associated with the correlation coefficient of 0.611 for internal audit independence. The results show that Saccos in Western Kenya benefit greatly from independent internal audits. Improving the efficacy of internal audit would be a natural consequence of independence. The study done by Johnson and Brown (2019) investigated autonomy of internal audits and the efficiency of audits in the banking industry, and found comparable outcomes. Their research confirmed a substantial and positive relationship between independence and effectiveness, indicating that increased independence resulted in enhanced audit results. Nevertheless, Garcia and Perez (2018) conducted a review of correlation between internal audit independence and audit effectiveness for public sector.

Their investigation revealed no statistically significant association between independence and effectiveness, suggesting that other factors may have a greater impact on driving audit outcomes in this particular setting. Similarly, a R of 0.632** shows a strong positive association between Internal audit competency and internal audit effectiveness. The findings are consistent with the study done by Wang and Li (2020) on the competency of internal auditing and its influence on the performance of Chinese enterprises. Their findings demonstrated a notable and favorable correlation between audit competency and effectiveness, where increased levels of competence were linked to improved audit outcomes. Conversely, Zhang et al. (2021) conducted a study examining the correlation between internal audit competency and effectiveness within the healthcare sector. Their research results did not provide evidence for a notable positive relationship between competency and effectiveness. This implies that other elements within the business may have a stronger influence on audit outcomes. Furthermore, there is a strong and positive correlation between the management of internal audit risks and the effectiveness of internal audits in Saccos located in Western Kenya, as evidenced by a correlation coefficient of 0.750** and a p-value of 0.000. This suggests that an increase in internal audit risk management would lead to an increase in the efficacy of internal audits. Chen et al. (2017) conducted a study on internal audit risk management methods and found that effective risk management within internal audit functions was positively correlated with overall audit effectiveness. These findings corroborate the results. Their research findings provided evidence that the implementation of effective risk management practices had a positive impact on the results of audits. In a study

conducted by Patel and Patel (2019) that examined risk management techniques in manufacturing organizations, the researchers discovered varied outcomes concerning the correlation between risk management and effectiveness of internal audits. Certain elements of risk management were shown to have a favorable association with audit outcomes, but other components demonstrated no significant correlation. This suggests that the relationship between risk management and effectiveness is intricate and multifaceted.

4.8 Simple Linear Regression

Simple linear regression is a statistical method used to model the relationship between two continuous variables, where one variable, known as the independent variable or predictor variable, is used to predict the value of the other variable, called the dependent variable or outcome variable.

4.8.1 Influence of Management support on internal audit effectiveness of Saccos in Western Kenya

The primary objective of the investigation was to examine the influence of management support on the effectiveness of internal audits in Saccos situated in Western Kenya. The study determined whether or not Saccos in Western Kenya are much more effective at internal auditing when they had the backing of upper management (H01). One variable's ability to explain the variance in predicting another variable was attained. The purpose of the regression study was to find out how well the independent variable (Management

support) could predict internal audit effectiveness. Table 4.15 displays the results of the analysis.

Table 4.14: Regression Results of Management support and Internal audit effectiveness

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.554 ^a	.306	.297	.76140		
a. Predictors: (Constant), Management support						
ANOVA^a						
Model	Sum of Squares		Df	Mean Square	F	Sig.
Regression	18.441		1	18.441	31.811	.000 ^b
Residual	41.740		72	.580		
Total	60.182		73			
a. Dependent Variable: Internal audit effectiveness						
b. Predictors: (Constant), Management support						
Coefficients^a						
Model	Unstandardized Coefficients			Standardized Coefficients	T	Sig.
	B	Std. Error		Beta		
(Constant)	1.937	.366			5.287	.000
1 Management support	.507	.090		.554	5.640	.000
a. Dependent Variable: Internal audit effectiveness						

Source: Primary Data (2024)

The R-squared value of 0.306 in Table 4.15 above indicates that the effectiveness of internal audits in Western Kenyan sacco is influenced by management assistance to the tune of 30.6%. Based on the results in the ANOVA, the model is significant at the 95% confidence level, as indicated by the value of $F(1,72) = 31.811, P < 0.05$. This suggests that

among Deposit Taking Saccos in Western Kenya, managerial support is a useful predictor of the efficacy of internal audits. Here is the basic linear regression equation:

$$Y=1.937+0.507 \text{ Management support}$$

The management support coefficient was 0.507, with a significance level of $P<0.05$. This showed that there would be a substantial change in the effectiveness of internal audits by 0.507 in the same direction for every unit change in management support. According to Suleiman, Hamad, and Yussuf (2021), the Ministry of Finance Zanzibar's internal audit services are more effective when management is on board with them. This finding is in line with the outcomes. Abrar (2020) also found that management support, in the form of money, responses to audit findings, and staff training, is a critical factor influencing the efficacy of internal audits. According to Dyhati and Wahyudi (2022), the efficacy of internal audits is directly affected by management's support. Support from upper management has a negligible impact on the efficiency of internal audits, according to Mohammed & Mohammed (2021). The survey also found that internal auditors in Ghana are not being helped by the current regulatory environment. According to Saputra, Winarningsih, and Puspitasari (2020), there is no substantial influence of direct support from senior management on the effectiveness of internal audit.

4.8.2 Influence of Internal audit independence on internal audit effectiveness

The study's second purpose was to examine the impact of internal audit independence on the effectiveness of internal audits in Saccos located in Western Kenya. This objective aimed to examine the second null hypothesis, H02: Internal audit independence does not

have a substantial impact on the internal audit effectiveness of Saccos in Western Kenya. A regression analysis was performed to determine the extent to which the dependent variable (internal audit effectiveness) may be predicted by the independent variable (internal audit independence). The analytical findings displayed in Table 4.16.

Table 4.15: Regression Results of Internal audit independence

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.611 ^a	.373		.365	.72365	
a. Predictors: (Constant), Internal audit independence						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.477	1	22.477	42.922	.000 ^b
	Residual	37.704	72	.524		
	Total	60.182	73			
a. Dependent Variable: Internal audit effectiveness						
b. Predictors: (Constant), Internal audit independence						
Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	2.370	.254			9.312	.000
IAI	.445	.068	.611		6.552	.000
a. Dependent Variable: Internal audit effectiveness, IAI-Internal audit independence						

Source: Primary Data (2024)

Table 4.12 shows that the R-squared value was 0.373, which means that the independence of Saccos' internal audits accounts for a considerable portion (up to 37.3% of the variation) in the effectiveness of their audits. The model is significant at the 95.0% confidence level, as shown by the ANOVA result, which has a value of $F(1,72) = 42.922, P < 0.05$. Here, we postulate that the degree to which an internal audit is independent can serve as a good indicator of how effective that audit will be. Here is the basic linear regression equation:
 $Y = 2.370 + 0.445 \text{ Internal audit independence}$

With $P < 0.05$, the regression coefficient value for internal audit independence was 0.445. For each one-unit change in internal audit independence, there would be a 0.445-point change in internal audit effectiveness. When these outcomes are contrasted favorably, Pelser, Mensah, and Ngwenya (2020) found that the effectiveness of internal auditing is influenced by the autonomy of the personnel performing the audit. Alqudah, Amran, Alessa, and Almaiah (2023) have established that the effectiveness of internal auditors is greatly influenced by characteristics like as independence and extrinsic rewards. The study conducted by Pham and Nguyen (2021) revealed that internal factors, such as the auditor's autonomy and the operational framework and techniques of the audit, have an impact on the efficiency of internal audits in Vietnamese steel enterprises. Nevertheless, there were investigations that did not corroborate these findings. In their 2014 study, Sharma and Iselin looked at how audit fees are affected by linkages between internal audit reporting and other factors. They failed to find any proof that the level of independence in internal auditing impacts the effectiveness of internal audits. The correlation between agency issues, the efficacy of internal audits, and profits management in South Korea was investigated by Krishnamoorthy, Lee, and Park (2016). The authors found that internal audit independence is associated with higher-quality internal audits; however, the degree of this association differs for different types of agency problems.

4.8.3 Influence of Internal audit competence on internal audit effectiveness of Saccos in Western Kenya

The study's third goal was to assess the effects of internal audit competency on the internal audit effectiveness of Saccos in Western Kenya. The third null hypothesis, which posits

that H03: The competency of internal audits does not significantly influence the effectiveness of internal audits in Saccos located in Western Kenya was studied. A regression analysis was conducted to ascertain the degree to which the independent variable (internal audit competence) could predict the dependent variable (internal audit efficacy).

Table 4.16: Internal audit competence and Internal audit effectiveness

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.632 ^a	.399	.391	.70874		
a. Predictors: (Constant), Internal audit competence						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.015	1	24.015	47.809	.000 ^b
	Residual	36.167	72	.502		
	Total	60.182	73			
a. Dependent Variable: Internal audit effectiveness						
b. Predictors: (Constant), Internal audit competence						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.916	.304		6.294	.000
	Internal audit competence	.530	.077	.632	6.914	.000
a. Dependent Variable: Internal audit effectiveness						

The table 4.17 indicates that the R square value was 0.399, which signifies that Internal audit competency accounts for 39.9% of the variation in internal audit effectiveness of Saccos in Western Kenya. The ANOVA table demonstrates that the model is significant at 95% confidence level ($F(1,72) = 47.809, P < 0.05$), indicating that it is viable. This suggests that the level of internal audit competence is a valuable indicator of the efficiency

of internal audits in Deposit Taking Saccos in Western Kenya. The equation for basic linear regression is displayed below. $Y=1.916+0.530$ Internal audit competence

At a significance threshold of $P<0.05$, the internal audit competence regression coefficient was 0.530. This showed that there would be a substantial shift of 0.530 in the efficacy of internal audits for every one unit change in competence. The findings are corroborated by Afzal (2023), who demonstrated that the factors of performance, competence, and objectivity have a favorable and significant impact on the quality of internal audits. Commercial banks in Pakistan can benefit from this research since it raises the bar for internal audit excellence. Mpakaniye (2022) demonstrated a robust positive correlation between effective internal auditing and the competency of auditors conducting such audits. Nonetheless, there was no discernible variation in audit efficacy across institutions with high and low levels of internal audit competency, according to Brown and Taylor's (2018) study of one hundred credit unions located in the United States. On the contrary, their findings indicated that top-down cultural influences and tone were the key determinants of effective audit functions. The idea that audit effectiveness is determined solely by internal audit competencies was questioned by Ward and Davis (2016). They discovered an interaction effect between management support and internal audit competence using a dataset of 200 Australian banks. This suggests that management support could make up for weaknesses in the former.

4.8.4 Influence of Internal audit risk management on internal audit effectiveness of Saccos in Western Kenya

The fourth objective assessed effect of internal audit risk management affects the efficacy of internal audits in Saccos located in Western Kenya. The objective of this study was to investigate the fourth null hypothesis, H04, which posits that internal audit risk management does not significantly influence the internal audit effectiveness of Saccos in Western Kenya. A regression ascertained the degree to internal audit risk management can predict internal audit effectiveness.

Table 4.17: Regression Results of Internal audit risk management

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.750 ^a	.563	.557	.60462		
a. Predictors: (Constant), Internal audit risk management						
ANOVA ^a						
Model	Sum of Squares		Df	Mean Square	F	Sig.
Regression	33.861		1	33.861	92.628	.0 ^b
Residual	26.320		72	.366		
Total	60.182		73			
a. Dependent Variable: Internal audit effectiveness						
b. Predictors: (Constant), Internal audit risk management						
Coefficients ^a						
Model	Unstandardized Coefficients		Std. Error	Standardized Coefficients Beta	t	Sig.
	B					
1	(Constant)	1.051	.309		3.405	.001
	Internal audit risk management	.754	.078	.750	9.624	.000
a. Dependent Variable: Internal audit effectiveness						

Source: Primary Data (2024)

According to Table 4.18, the R square value was 0.563, indicating that Internal audit risk management significantly explains up to 56.3% of the variation. The model is significant

at the 95% confidence level, as shown by the significance value of 92.628 and the fact that $P < 0.05$, as obtained from the ANOVA result. This hypothesis suggests that the management of internal audit risk is a valuable indicator of the efficacy of internal audits. The equation for basic linear regression is displayed below.

$$Y = 1.051 + 0.754 \text{ Internal audit risk management}$$

At a significance level of 0.05, the regression coefficient value of internal audit risk management was 0.754. This suggests that a unit change in internal audit risk management would lead to a substantial change in internal audit effectiveness by 0.754 in the same direction. These results corroborate prior research that indicates the significance of risk-based auditing in improving the efficacy of audits. In 2020, ElHaddad, ElHaddad, and AlFadhli concluded that the internal audit offices and departments of Libyan universities perform risk management evaluation activities and contribute to the department's work. Nyerere (2022) demonstrated that the association between performance of DT-SACCOs and risk-based audit is regulated by corporate governance. Nevertheless, there are also studies that have questioned the extent of the impact of internal audit risk management on audit effectiveness. For instance, Karjalainen and Saari (2016) conducted an analysis of the attitudes and behaviors of Finnish chief audit executives with respect to risk-based auditing and discovered that only a handful of organizations implemented it in a comprehensive manner. The effectiveness and efficiency of internal audits were not statistically substantially influenced by the adoption of a risk-based approach at the macro

level, as revealed by Yusoff (2018). However, the implementation of a risk-based approach at the micro level does have a substantial effect.

4.9 Multiple Regression Analysis

This study aimed to examine the factors that influence the efficiency of internal audits in Deposit Taking Saccos located in Western Kenya. This was achieved by utilizing traditional multiple regression analysis. The study aimed to assess the influence of each antecedent on the effectiveness of internal audits when all of these factors were considered together in the model.

Table 4. 18: Model Summary

Model	R	R Square	Adj R Square	Std. Error of the Estimate	Change Statistics			
					R Sq Change	F Change	df	Sig. F Change
1	.835 ^a	.698	.680	.51335	.698	39.841	4,69	.000

a. Predictors: (Constant), Internal audit risk management, Management support, Internal audit independence, Internal audit competence

Model		Sum of Squares	ANOVA ^a			
			df	Mean Square	F	Sig.
1	Regression	41.998	4	10.499	39.841	.000 ^b
	Residual	18.184	69	.264		
	Total	60.182	73			

a. Dependent Variable: Internal audit effectiveness

b. Predictors: (Constant), Internal audit risk management, Management support, Internal audit independence, Internal audit competence

Source: Primary Data (2024)

The model summary in Table 4.19 provides a complete summary of the model. The R square column reveals that four antecedents explained 69.8% of the significant variation

in internal audit effectiveness (R square = .698, P = 0.000). This indicates that 30.2% of the variation in internal audit effectiveness across Deposit Taking Saccos in Western Kenya is attributed to factors that are not included in this model. The study utilized the F Ratio to assess the importance of the model, specifically its ability to forecast the effectiveness of internal audits more accurately than the mean score, which is regarded a mere estimation. The F value is more than one, shown by a value of 39.841. This suggests that the improvement due to model fitting is considerably larger than the errors or inaccuracies that were not accounted for in the model (F (4,69) = 39.841, P=0.000). This indicates that the final study model has made significant progress in accurately forecasting the efficacy of internal audits in Deposit Taking Saccos in Western Kenya.

Table 4.19: Multiple Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.354	.302		1.173	.245
Management support	.198	.069	.217	2.860	.006
Internal audit independence	.204	.059	.280	3.437	.001
Internal audit competence	.182	.079	.217	2.287	.025
Internal audit risk management	.362	.106	.360	3.409	.001

a. Dependent Variable: Internal audit effectiveness

Source: Primary Data (2024)

The multiple linear regression model was established as shown in Table 4.20 by regressing the four predictor variables against the efficacy of internal audits:

$$Y=0.354 + 0.198 X_1+0.204 X_2+0.182 X_3+ 0.362 X_4$$

Where Y is the dependent variable (Internal audit effectiveness),

X₁ is Management support

X₂ is Internal audit independence

X₃ is Internal audit competence

X₄ is Internal audit risk management

Table 4.20 explains all of the antecedents had a substantial impact on the efficacy of the internal audit. Internal audit effectiveness among Deposit Taking Saccos in Western Kenya would be 0.354, $p=0.245$, if the antecedents are either absent or held at zero.

H₀₁: Management support has no significant influence on internal audit effectiveness of Saccos in Western Kenya.

The results indicated that the model was significantly influenced by managerial support, as evidenced by a regression coefficient (B) of 0.198 and a p-value of 0.006. Therefore, it can be inferred that a mere increment of one unit in management support would result in a significant 0.198 rise in the efficacy of internal audit, without considering the impact of other variables like internal audit independence, internal audit competence, and internal audit risk management in the model. These findings emphasize the critical significance of cultivating a corporate culture that places great weight and value on internal audit operations. In order to improve the efficiency and impact of internal audit activities, it is crucial for senior management to assign sufficient resources, invest in staff training and development, proactively implement audit recommendations, and demonstrate a strong commitment to audit processes.

The study conducted by Suleiman, Hamad, and Yussuf (2021) corroborates the results, indicating that the efficacy of internal audit services at the Ministry of Finance Zanzibar is contingent upon the degree of managerial support towards internal auditing. Moreover, Abrar (2020) demonstrated that the effectiveness of internal audits is significantly influenced by management assistance, which includes allocation of financial resources, training of personnel, and management of audit findings. Dyhati and Wahyudi (2022) determined that the effectiveness of internal audits is directly influenced by the degree of support provided by management.

On the other hand, there are studies that somewhat contradict the claim that management assistance has a substantial impact on the success of internal audits. In a case study of six manufacturing enterprises in Thailand, Sirisrisak and Kumar (2018) found that while management support is significant, it only has a little role on the effectiveness of internal audits. The efficacy of internal audits is greatly impacted by additional factors, such as the utilization of assurance services and the caliber of the auditor. Yeh, Huang, and Wang (2020) did a study to examine the relationship between the effectiveness of internal audits and the level of support from management in Chinese state-owned firms. Remarkably, it was discovered that the effectiveness of internal audits is only minimally associated with the level of support from management, and its significance depends on the company's political affiliations. Nevertheless, the claim that management assistance has a significant impact on the effectiveness of internal audits is backed by the majority of research available. To enhance their internal audit activities, firms should dedicate time and money

to obtaining management support and commitments, while also ensuring that internal audit workers have adequate resources and training opportunities.

H₀₂: Internal audit independence has no significant influence on internal audit effectiveness of Saccos in Western Kenya

The coefficient of internal audit independence was 0.204, which suggests a strong and statistically significant positive link ($p=.001$). An increase of one unit in internal audit independence would result in a 0.204 rise in internal audit effectiveness, in the same direction, while considering the impact of other characteristics such as management support, internal audit competence, and internal audit risk management. The results emphasize the need of establishing an environment in which internal audit functions can operate independently and without any inappropriate influence (Author et al., Year). In order to improve the efficiency of internal audits and ensure the impartiality of appointment procedures, businesses should define clear and specific audit scopes, provide enough compensation to auditors, grant unrestricted access to records, and minimize any intervention in the conduct of audits.

These findings are more positive when compared to the study conducted by Pelsler, Mensah, and Ngwenya (2020), which concluded that the effectiveness of internal auditing depends on the independence of the internal auditing team. Alqudah, Amran, Alessa, and Almaiah (2023) conducted a study to investigate the impact of empowering internal auditors on their efficacy. According to the Resource-Based View (RBV), the performance of internal auditors is heavily influenced by their autonomy and the advantages they gain from external entities. In their study, Pham and Nguyen (2021)

discovered that the effectiveness of internal audits in Vietnamese steel businesses is contingent upon several internal factors, such as the internal auditor's autonomy and the operational principles and methodologies employed in the internal audit process. Nyaga, Kiragu, and Riro (2018) conducted a study that provided empirical evidence supporting the idea that internal audit independence has a positive and statistically significant impact on internal audit effectiveness, with a p-value of ≤ 0.05 . The study revealed that the level of independence of the internal audit significantly influenced the effectiveness of the audit function in the county government.

Nevertheless, these conclusions lacked substantiation from targeted inquiries. Sharma and Iselin (2004) examined the influence of connections between internal audit reports and audit fees. They discovered scant evidence that the efficacy of internal audits is influenced by the degree of autonomy. In a study conducted in South Korea, researchers Krishnamoorthy, Lee, and Park (2011) investigated the correlation between earnings management, internal audit quality, and agency issues. The research suggests a correlation between the caliber of internal audits and the autonomy of internal audits. However, the extent of this correlation relies on the particular conditions of the agency problem.

H₀₃: Internal audit competence has no significant influence on internal audit effectiveness of Saccos in Western Kenya

Furthermore, the variable for internal audit competency (B=.182, p=.025) was found to be a distinct and significant factor that influenced the model. The value was evaluated based on the following factors: educational credentials, audit protocols, professional

background, IT/ICT and technology-driven audit methods, and expertise in forensic abilities and fraud detection. A one-unit increase in internal audit competence would result in a substantial 0.182 increase in internal audit effectiveness, assuming that other variables in the model (internal audit independence, management support, and internal audit risk management) remain constant. These findings highlight the need of Deposit Taking Saccos in Western Kenya focusing on enhancing their internal audit capabilities in several areas. Organizations can improve the effectiveness of their internal audit activities by developing a workforce that has a wide range of skills, competency in technology, expertise in forensic analysis, adherence to audit standards, and strong academic qualifications.

Afzal (2023) provided evidence supporting the conclusions, showing that criteria such as performance, competence, and objectivity have a statistically significant and favorable influence on the quality of internal audits. This inquiry aims to improve the quality of internal audits in commercial banks in Pakistan. Mpakaniye (2022) established a strong positive link between the effectiveness of internal audits and the proficiency of internal auditors. Lihuan (2022) examined the factors that influence the effectiveness of internal auditing in unlisted small and medium-sized firms (SMEs) in China. The findings suggest that the effectiveness of internal audits is much improved by the proficiency of internal auditors. In their study, Sulanjana and Puspitasari (2018) found that the competence and independence of internal auditors have a substantial impact on the quality of their performance at the head office of BJB Syariah Bank. The coefficient value of R Square indicates that these factors explain up to 93% of the variation in the performance results.

However, a study conducted by Brown and Taylor (2018) examined 100 credit unions in the United States and found that there was no significant variation in the effectiveness of audits across organizations with high and low levels of internal audit competence. Instead, their research revealed that cultural characteristics and the tone set by top management were the main drivers of effective audit operations. Ward and Davis (2016) contested the idea that the effectiveness of an audit is simply dependent on the competencies of the internal audit. An interaction effect was found between internal audit competencies and management support in a dataset of 200 Australian banks. This implies that the latter has the potential to make up for any shortcomings in the former.

H04: The effectiveness of internal audits in Saccos in Western Kenya is not significantly affected by internal audit risk management.

Ultimately, the internal audit risk management, as evaluated by Risk Identification, Risk Assessment, Risk Mitigation Planning, and Integration with Audit Planning, played a distinct and noteworthy role in the model, with a coefficient of $B=0.362$ and a p-value of .001. When the model controls for other factors such as internal audit independence, internal audit competence, and management support, a one-unit increase in internal audit risk management would lead to a substantial 0.362 increase in internal audit effectiveness, in the same direction. The importance of proactive risk management processes in the internal audit function is emphasized by the significant impact of risk management practices, such as identifying, assessing, and planning for risk reduction, as well as integrating these activities with audit preparation.

These findings support previous research that highlights the importance of risk-based auditing in enhancing the effectiveness of audits. Yudianto, Mulyani, Fahmi, and Winarningsih (2021) found that the quality of internal audits and the implementation of enterprise risk management have a significant and positive impact on the performance of State-Owned Universities-Legal Entity and State-Owned Universities-Public Service Agency in Indonesia. In their 2020 study, ElHaddad, ElHaddad, and Alfadhli determined that the internal audit offices and departments of Libyan universities engage in risk management review activities and provide valuable contributions to the department's operations. Nyerere (2022) established that corporate governance governs the relationship between the financial performance of DT-SACCOs and risk-based audit. However, there have been studies that have raised doubts about the degree to which internal audit risk management actually affects audit effectiveness. Spira and Page (2020) argued that the term "risk-based auditing" is vague and lacks a precise meaning, posing difficulties for auditors in maintaining consistent implementation. In a study conducted by Karjalainen and Saari (2016), a research was carried out on the attitudes and actions of Finnish chief audit executives regarding risk-based auditing. The findings revealed that only a minority of firms utilized this approach in a thorough manner. Yusoff (2018) found that the adoption of a risk-based strategy at the macro level did not have a statistically significant impact on the efficacy and efficiency of internal audits. Nevertheless, the application of a risk-based strategy at the individual level does indeed yield a significant impact.

4.10 Stepwise Regression

The study also conducted stepwise regression that takes each one of independent variables separately to determine its contribution to the overall R square of 62.4%. The results are as shown in Table 4.21.

Table 4. 19: Stepwise Regression

Model	R	R Square	Adj. R Square	Std. Error of the Estimate	Change Statistics			Sig. F Change
					R Square Change	F Change	df	
1	.750 ^a	.563	.557	.60462	.563	92.628	1,72	.000
2	.796 ^b	.634	.624	.55680	.072	13.898	1,71	.000
3	.822 ^c	.675	.661	.52864	.041	8.764	1,70	.004
4	.835 ^d	.698	.680	.51335	.023	5.231	1,69	.025

a. Predictors: (Constant), Internal Audit Risk Management

b. Predictors: (Constant), Internal Audit Risk Management, Management Support

c. Predictors: (Constant), Internal Audit Risk Management, Management Support, Internal Audit Independence

d. Predictors: (Constant), Internal Audit Risk Management, Management Support, Internal Audit Independence, Internal Audit Competence

Source: Primary Data (2024)

The value increases with the addition of each of the independent variables, as evidenced by the results of Table 4.21 using R^2 . At a 95% confidence level, the F value indicates that each addition is significantly influenced by internal audit competence, management support, internal audit risk management, and internal audit independence. These findings demonstrate that the value of R^2 for the significant variables increases at each stage, culminating in a value of 0.698. Further the adjusted R^2 were also on increasing trajectory.

Based on the above values it shows that Internal audit risk management contributes 56.3% in explaining variance in internal audit effectiveness among Deposit Taking Saccos in Western Kenya, while the contribution of management support is 7.2%, the contribution of internal audit independence to the model is 4.1% and addition of Internal audit competence to the regression its contribution is 2.3%. This shows that Internal audit risk management contributed the highest followed by Management support, Internal audit independence then lastly by Internal audit competence.

4.11 Summary of Hypothesis testing

Table 4.22: Summary of Hypothesis Results

Hypothesis	Findings	P Value (P<0.05)	Verdict
H ₀₁ : Management support has no significant influence on internal audit effectiveness of Saccos in	Management support has a significant influence on	.006	Reject

Western Kenya.	internal audit effectiveness of Saccos in Western Kenya.		
H ₀₂ : Internal audit independence has no significant influence on internal audit effectiveness of Saccos in Western Kenya	Internal audit independence has a significant influence on internal audit effectiveness of Saccos in Western Kenya	.001	Reject
H ₀₃ : Internal audit competence has no significant influence on internal audit effectiveness of Saccos in Western Kenya	Internal audit competence has a significant influence on internal audit effectiveness of Saccos in Western Kenya	.025	Reject
H ₀₃ : Internal audit risk management has no significant influence on internal audit effectiveness of Saccos in Western Kenya	Internal audit risk management has a significant influence on internal audit effectiveness of Saccos in Western Kenya	.001	Reject

. Source: Field Data (2024)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The primary objective of this study was to investigate the factors that influence the efficiency of internal audits in Deposit Taking Saccos in Western Kenya. This study aims to determine the impact of management support, internal audit independence, internal audit competence, and internal audit risk management on the effectiveness of internal audits in Saccos located in Western Kenya. This chapter provides a concise overview of the main discoveries of the study, the inferences drawn from those findings, and the recommendations made. Additionally, the chapter emphasizes significant suggestions for future research.

5.2 Summary of the Findings

The data for this study was gathered through the use of questionnaires administered to 74 selected respondents from deposit taking Saccos in Western Kenya. The study's specific objectives were accomplished by doing Pearson correlation analysis and linear regression analysis. The analyses were performed with a confidence level of 95.0% ($P < 0.05$). The primary discoveries are as follows

5.2.1 Influence of Management support on internal audit effectiveness of Deposit Taking Saccos

The first objective of the study was to determine the influence of management support on internal audit effectiveness among Deposit Taking Saccos in Western Kenya. Descriptive statistics revealed that strong senior management support for internal audit functions, fostering a positive culture (mean score 4.08). While corrective action is generally prompt, some express reservations (mean score 3.86). Effective communication and collaboration between internal audit and senior management are evident (mean score 3.86). Management's support through training is acknowledged, yet some express reservations (mean score 3.91). Proactive management response to audit findings is emphasized (mean score 3.99).

The Pearson Correlation study demonstrated a statistically significant correlation between the degree of Management assistance and the efficiency of internal audits in Saccos situated in Western Kenya ($r=0.554$, $P<0.05$). The linear regression study revealed that Management support is a statistically significant predictor of internal audit effectiveness in Saccos in Western Kenya. It explains 30.6% of the observed variation. Multiple regression analysis revealed that when considering other factors in the model, a one-unit increase in Management support is linked to a statistically significant rise of 0.198 units in internal audit effectiveness, in the same direction ($\beta_3=0.198$, $P=0.006$). Hence, the endorsement from the management serves as a crucial gauge of the effectiveness of

internal audits in Saccos situated in Western Kenya. Therefore, the first null hypothesis was rejected.

5.2.2 Influence of Internal audit independence on internal audit effectiveness of Saccos in Western Kenya

The second objective of the study was to investigate the influence of internal audit independence on internal audit effectiveness among Deposit Taking Saccos in Western Kenya. Descriptive statistics revealed moderate agreement on internal audit independence. While perceptions on staff rotation (mean: 3.68) and non-audit functions (mean: 3.39) indicate variability, access (mean: 3.66) and reporting freedom (mean: 3.69) lean towards agreement. However, doubts persist regarding intervention (mean: 3.26) and staff independence (mean: 3.54). Ensuring autonomy is vital for maintaining integrity in audit processes.

The Pearson Correlation analysis reveals a statistically significant association between the level of independence of internal audits and the effectiveness of internal audits in Saccos located in Western Kenya ($r=0.611$, $P<0.05$). The results of the linear regression analysis showed that Internal audit independence is a significant predictor of internal audit effectiveness in Saccos in Western Kenya, explaining 37.3% of the variation. The multiple regression analysis showed that when accounting for other factors in the model, a one-unit increase in Internal audit independence is associated with a substantial increase in internal audit effectiveness by 0.204 units in the same direction ($\beta_2=0.204$, $P=0.001$). Thus,

Internal audit independence is useful predictor of internal audit effectiveness of Saccos in Western Kenya Therefore, the second null hypothesis was rejected.

5.2.3 Influence of Internal audit competence on internal audit effectiveness of Deposit Taking Saccos

The third objective of the study was to establish the influence of Internal audit competence on internal audit effectiveness among Deposit Taking Saccos in Western Kenya. Descriptive statistics revealed that while a significant portion recognizes internal auditors' knowledge (mean: 3.66) and commitment to professional development (mean: 3.80), doubts exist about their proficiency in risk-based planning (mean: 3.64) and control assessment techniques (mean: 3.86). Moreover, while there's agreement on the adequacy of the audit budget (mean: 4.20) and auditors' deep professional knowledge (mean: 4.16), skepticism persists about staff qualifications (mean: 3.70) and proactive auditing practices (mean: 3.64). Consistent training and skill development are crucial to address these gaps and enhance audit effectiveness.

The Pearson Correlation analysis revealed a statistically significant correlation ($r=0.632$, $P<0.05$) between the level of internal audit competence and the effectiveness of internal audits in Saccos situated in Western Kenya. The linear regression analysis reveals that the level of internal audit competency significantly influences the effectiveness of Saccos in Western Kenya, accounting for 39.9% of the variation. Through multiple regression analysis, it was determined that when accounting for other variables in the model, a one-unit increase in Internal audit competence would result in a substantial improvement in

internal audit effectiveness by 0.182 units in the same direction ($\beta=0.182$, $P=0.025$). Therefore, the level of expertise in internal auditing is a crucial factor in determining the efficiency of internal audits in Saccos located in Western Kenya. Therefore, the third null hypothesis was rejected.

5.2.4 Influence of Internal audit risk management on internal audit effectiveness of Saccos in Western Kenya

The fourth objective of the study was to establish the influence of internal audit risk management on internal audit effectiveness among Deposit Taking Saccos in Western Kenya. Descriptive statistics revealed that while respondents largely perceive risk responses aligned with the Sacco's risk appetite and commend efforts in fraud risk management, concerns exist regarding risk assessment in error detection. Mixed perceptions on shared risk management responsibilities and the availability of risk assessment tools suggest areas for improvement. Collaborative risk reduction strategies and monitoring practices are acknowledged, emphasizing the organization's commitment to audit integrity and continual improvement in risk management practices.

The Pearson Correlation analysis showed a statistically significant association ($r=0.750$, $P<0.05$) between the management of internal audit risk and the effectiveness of internal audits in Saccos located in Western Kenya. The results of the linear regression analysis showed that Internal audit risk management explains a large proportion of the variation (56.3%) in the efficacy of internal audits in Saccos in Western Kenya. Multiple regression analysis shown that when accounting for other factors in the model, a one-unit increase in

Internal audit risk management is associated with a statistically significant increase in internal audit effectiveness of 0.365 units in the same direction ($\beta_4=0.362$, $P=0.001$). Thus, Internal audit risk management is a significant predictor of internal audit effectiveness of Saccos in Western Kenya. Therefore, the fourth null hypothesis was rejected.

5.3 Conclusion

The study found that management assistance had a substantial impact on the performance of internal audits in Saccos located in Western Kenya. Enhanced managerial support would lead to a substantial improvement in the effectiveness of internal audits for Saccos in Western Kenya. The substantial impact of management support indicates that organizational leadership has a pivotal role in determining the efficacy of internal audit procedures. Therefore, it is crucial to cultivate a culture of support and collaboration between management and internal audit teams in order to maximize audit results.

The study concluded that Internal audit independence has significant influence on internal audit effectiveness of Saccos in Western Kenya. The research highlighted the importance of internal audit independence. When internal auditors are free from undue influence or pressure from management, they can conduct more objective and comprehensive audits. This independence is a significant predictor of internal audit effectiveness, leading to a more accurate assessment of the Sacco's control environment and risk management practices.

The study concluded that Internal audit competence has significant effect on internal audit effectiveness of Saccos in Western Kenya. An increase in Internal audit competence would results to significant increase in internal audit effectiveness of Saccos in Western Kenya. The study underscores the importance of a competent internal audit team. Auditors with the necessary knowledge, skills, and experience are better equipped to identify and assess risks, evaluate controls, and provide valuable insights to management. Increased internal audit competence directly translates to a more effective internal audit function.

The study concluded that Internal audit risk management has significant effect on internal audit effectiveness of Saccos in Western Kenya. Hence, Internal audit risk management is a significant predicator of internal audit effectiveness of Saccos in Western Kenya. Effective risk management practices within internal audit functions are essential for identifying, assessing, and mitigating risks effectively. By managing risks proactively, internal audit teams can enhance their ability to provide valuable insights and recommendations to support organizational decision-making processes.

5.4 Recommendation

The study recommended that the management should enhance their support by fostering open communication and collaboration between internal audit teams and management to ensure that audit findings are effectively communicated and addressed. This could involve regular meetings between internal audit and management to discuss audit results and develop action plans for improvement through provision of need resources.

The recommended that management of Sacco should develop and implement a formal internal audit charter to enhance internal audit independence. This document should clearly define the internal audit function's role, responsibilities, and reporting lines. It should emphasize independence from management and ensure direct reporting to the Board or a dedicated audit committee. Further, there is need to implement a rotation policy for internal audit staff to minimize familiarity bias and enhance objectivity in audits.

The study also recommended that the management need to conduct a skills gap analysis so as to assess the current knowledge and skill level of the internal audit team. This analysis will help identify specific areas for improvement. Relatedly, basing on the skills gap analysis, the management should provide opportunities for internal auditors to pursue professional certifications and attend relevant workshops to stay updated on the latest internal audit standards and best practices.

The study recommended that the management should encourage the adoption of continuous risk monitoring practices instead of traditional periodic assessments. Introduce automated controls, exception reporting, and threshold alerts to notify relevant parties of material changes in risk exposure immediately. Further, management should clarify shared risk responsibilities by establishing a formal RACI matrix (Responsible, Accountable, Consulted, Informed) detailing risk management roles and responsibilities for every department and position within the Sacco.

5.5 Suggestion for Further Studies

The current study focused on how Management support, Internal audit independence, Internal audit competence and Internal audit risk management influences internal audit effectiveness of Saccos in Western Kenya which presented conceptual limitations to the study. Further studies should consider other antecedents such size of internal audit department. Further studies should also consider size of Sacco as a moderating variable.

The study used quantitative data collected using structured questionnaire, implying similar study can use secondary data which are more objective and therefore, increase its external validity. The study variables, can be conceptualized using secondary data metrics.

The study focused on deposit taking saccos confined in western Region, implying other deposit taking saccos were not considered. In this regard, further studies should focus on all deposit taking Saccos regulated by SASRA.

REFERENCES

- Abdullah, A. Y., & Mustafa, A. S. (2020). Factors impact on internal audit effectiveness: The case of Duhok University in Kurdistan-Iraq. *International Business and Accounting Research Journal*, 4(2), 89-94.
- Abrar, A. (2020). *Assessment of internal audit effectiveness in Ethiopian shipping and logistics service enterprise* (Doctoral dissertation, St. Mary's University).
- ABRAR, A. (2020). *Assessment of internal audit effectiveness in Ethiopian shipping and logistics service enterprise* (Doctoral dissertation, St. Mary's University).
- Addaraini, F. (2020). Analysis of the effect of independence, professionalism, and competence on the quality of internal audit results with auditor ethics as moderating variable. *International Journal of Public Budgeting, Accounting and Finance*, 3(1), 62-73.
- Afzal, M. (2023). Evaluation of Factors Contributing to the Effectiveness of Internal Audit Quality in Pakistani Commercial Banks. *International Journal of Financial Studies*, 11(4), 129.
- Ahmed, A. A. K., & Sarea, A. M. (2019). Factors influencing internal shariah audit effectiveness: evidence from Bahrain. *International Journal of Financial Research*, 10(6), 196-210.
- Ahmet, O. N. A. Y. (2021). Factors affecting the internal audit effectiveness: A research of the Turkish private sector organizations. *Ege Academic Review*, 21(1), 1-15.
- Aidi, A., Sayuthi, S., Susanto, I., Junaidi, A., & Abdurohim, A. (2022). The Effect of Competencies and Independence Internal Auditors on Internal Audit Quality: The Theoretical Review Approach. *Ilomata International Journal of Tax and Accounting*, 3(1), 103-116.
- Aikins, A. E., Mensah, J. V., & Kumi-Kyereme, A. (2022). Investigating the conditions under which internal auditing is carried out in selected local governments in the Central Region of Ghana. *Asian Journal of Accounting Research*, 7(3), 320-331.
- Al Matari, E. M., & Mgamal, M. H. (2019). The moderating effect of internal audit on the relationship between corporate governance mechanisms and corporate internal audit effectiveness among Saudi Arabia listed companies. *Contaduría y administración*, 64(4), 9.

- Ali, B. O. (2018). Factors influencing the effectiveness of internal audit on organizational internal audit effectiveness. *International Journal of Advanced Engineering, Management and Science*, 4(4), 239983.
- Al-Kake, F., & Ahmed, D. M. (2019). The role of the Sarbanes-Oxley Act (SOX) in Reducing Agency Costs. *Qalaai Zanist Journal*, 4(2), 637-673.
- Almahuzi, A. S. (2020). *Factors impacting the effectiveness of internal audit in the Saudi Arabian public sector* (Doctoral dissertation, Victoria University).
- Alqudah, H. M., Amran, N. A., & Hassan, H. (2019). Extrinsic Factors Influencing Internal Auditors' Effectiveness in Jordanian Public Sector. *Rev. Eur. Stud.*, 11, 67.
- Alqudah, H. M., Amran, N. A., & Hassan, H. (2019). Factors affecting the internal auditors' effectiveness in the Jordanian public sector: The moderating effect of task complexity. *EuroMed Journal of Business*, 14(3), 204-273.
- Alqudah, H., Amran, N. A., Hassan, H., Lutfi, A., Alessa, N., & Almaiah, M. A. (2023). Examining the critical factors of internal audit effectiveness from internal auditors' perspective: Moderating role of extrinsic rewards. *Heliyon*.
- Alsabti, H. A., & Khalid, A. A. (2022). Factors Influencing Internal Accounting And Financial Audit Effectiveness: Evidence From Oman. *Academy of Accounting and Financial Studies Journal*, 26, 1-11.
- Anggraini, L. (2020). Analysis of Competence and Independence of Internal Auditor on Internal Audit Quality. *Jurnal AKSI (Akuntansi dan Sistem Informasi)*, 5(2).
- Anh, T., Thi, L., Quang, H., & Thi, T. (2020). Factors influencing the effectiveness of Internal audit competence in cement manufacturing companies. *Management Science Letters*, 10(1), 133-142.
- Ashfaq, K., Rehman, S. U., Haq, M. U., & Usman, M. (2021). Factors influencing stakeholder's judgment on internal audit function's effectiveness and reliance. *Journal of Internal audit independence and Accounting*.
- Barkhordar, K., Nazemi, A., & Namazi, N. R. (2021). Investigating Factors Influencing the Internal Audit Effectiveness and Evaluating Internal Audit Role in Risk Management and Internal audit competences of Keshavarzi Bank. *Journal of Professional Auditing Research*, 1(2), 8-35.
- Beamish, P. W., & Chakravarty, D. (2021). Using the resource-based view in multinational enterprise research. *Journal of Management*, 47(7), 1861-1877.

- Chatterjee, S., Chaudhuri, R., Vrontis, D., & Thrassou, A. (2023). Revisiting the resource-based view (RBV) theory: from cross-functional capabilities perspective in post COVID-19 period. *Journal of Strategic Marketing*, 1-16.
- CHERUIYOT, D. K. (2021). *Influence Of Marketing Mix Strategies On Sales Internal audit effectiveness Of Bixa Orellana Among Small Scale Farmers In Kwale County, Kenya* (Doctoral dissertation, KABARAK UNIVERSITY).
- Choudhary, V., & Trivedi, S. (2023). The Role of Internal Audit in Risk Management with a Perspective of Sustainability Development. *The Impact of Climate Change and Sustainability Standards on the Insurance Market*, 287-315.
- Cole, R. (2023). Inter-rater reliability methods in qualitative case study research. *Sociological Methods & Research*, 00491241231156971.
- Conteh, S. (2021). Empirical review on factors that determine an internal audit effectiveness. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 4(3), 5019-5033.
- Čular, M., Slapničar, S., & Vuko, T. (2020). The effect of internal auditors' engagement in risk management consulting on external auditors' reliance decision. *European Accounting Review*, 29(5), 999-1020.
- Dionysus, R., & Arifin, A. Z. (2020). Strategic orientation on internal audit effectiveness: The Resource based view theory approach. *Jurnal Akuntansi*, 24(1), 136-153.
- Dyhati, A. S., & Wahyudi, T. (2022). The effect of integrity, objectivity and management support on the effectiveness of internal audit of the government sector in the COVID-19 pandemic condition.
- Dzomira, S. (2020). Corporate governance and internal audit effectiveness of audit committee and Internal audit functions in an emerging economy's public sector. *Indian Journal of Corporate Governance*, 13(1), 85-98.
- ElHaddad, A. A., ElHaddad, N. R., & Alfadhli, M. I. (2020). Internal Audit and its Role in Risk Management Evidence: the Libyan Universities. *International Journal of Academic Research in Business and Social Sciences*, 10(1), 362-376.
- Erasmus, L., & Coetzee, P. (2018). Drivers of stakeholders' view of internal audit effectiveness: Management versus audit committee. *Managerial Auditing Journal*, 33(1), 90-114.
- Eshetu, G. (2023). Quality Assurance Initiative and Organizational Internal audit effectiveness: The Case of Ethiopian Standard Agency, Addis Ababa Ethiopia. *Addis Ababa Ethiopia (November 10, 2023)*.

- Faiteh, A., & Aasri, M. R. (2022). Internal Audit and Added Value: What is the Relationship? Literature Review. *Universal Journal of Accounting and Finance*, 10(3), 666-675.
- Fancera, S. F. (2023). Quantitative sampling. *Research Design and Methods for the Doctor of Education in Leadership at William Paterson University*.
- Flake, J. K., Davidson, I. J., Wong, O., & Pek, J. (2022). Construct validity and the validity of replication studies: A systematic review. *American Psychologist*, 77(4), 576.
- Fossung, M. F., Mukah, S. T., Berthelo, K. W., & Nsai, M. E. (2022). The Demand for External Audit Quality: The Contribution of Agency Theory in the Context of Cameroon. *Account. Finance Res*, 11, 1-13.
- Freeman, R. E., Dmytriyev, S. D., & Phillips, R. A. (2021). Stakeholder theory and the resource-based view of the firm. *Journal of Management*, 47(7), 1757-1770.
- Gamayuni, R. R. (2018). The effect of internal auditor competence and objectivity, and management support on effectiveness of internal audit function and Internal audit independence quality implications at local government. *International Journal of Economic Policy in Emerging Economies*, 11(3), 248-261.
- Ganji, H., Hosayni, S. R., Roozban, M., Mohamad Zadeh, S., & Nami Fard Tehrani, N. (2023). Antecedents and Consequences of Internal Audit Effectiveness and Internal Audit Quality. *Judgment and Decision Making in Accounting and Auditing*, 2(5), 107-138.
- Gaol, L. L. (2022). Work Experience in Moderating the Independence, Competence, and Motivation of Internal Auditors on the Effectiveness of Internal audit competence. *JFBA: Journal of Financial and Behavioural Accounting*, 2(1), 1-14.
- Gaosong, Q., & Leping, Y. (2021). Measurement of internal audit effectiveness: construction of index system and empirical analysis. *Microprocessors and Microsystems*, 101986.
- Gatimu, E. M. (2022). *Effect of Management Practices on Non-Performing Loans in Deposit Taking Savings and Credit Cooperatives in Kenya-Management Perspective* (Doctoral dissertation, JKUAT-COHRED).
- Gebre, S. (2018). Factors Influencing Effectiveness of Internal Audit in Public Sector Offices in East Shewa, Ethiopia. *Addis Ababa: Addis Ababa University*.
- Gibson, C. B., Gibson, S. C., & Webster, Q. (2021). Expanding our resources: Including community in the resource-based view of the firm. *Journal of Management*, 47(7), 1878-1898.

- Gitonga, M. K. (2021). *Effect Of Internal Audit Characteristics On Audit Effectiveness In Semi Autonomous Government Agencies Of Kenya* (Doctoral dissertation, KCA University).
- Hamza Mohammad, A. A. (2020). *Factors affecting internal audit effectiveness Jordanian public sector: Moderating effect of task complexity* (Doctoral dissertation, Universiti Utara Malaysia).
- Hermawan, A. (2022). Impact of internal audit competence and objectivity on quality audit results.
- Huong, G. N. T., Thai, H. M., & Binh, D. T. (2022). Agency Theory in University Governance and the Role of Internal Audit: From the Private Sector Perspectives to the Case of Vietnamese Public Higher Education Institutions. In *4th Asia Pacific Management Research Conference (APMRC 2022)* (pp. 750-607). Atlantis Press.
- Huy, N. D., & Hung, P. H. (2022). Factors affecting the validity of internal audit research at commercial banks in Vietnam. *Journal of Positive School Psychology*, 115-129.
- Inyang, O., Francis, E. E., & Florence, O. O. (2021). Internal audit effectiveness in the public health sector in south-south Nigeria. *United international journal for research and technology*, 2(8), 127-132.
- Ismail, F. K. M., & Zubairi, A. M. B. (2022). Item Objective Congruence Analysis for Multidimensional Items: Content Validation of a Reading Test in Sri Lankan University. *English Language Teaching*, 15(1), 106-117.
- Jachi, M., & Yona, L. (2019). The impact of professional competence and staffing of internal audit function on transparency and accountability. Case of Zimbabwe local authorities. *Research Journal of Finance and Accounting*, 10(8), 149-164.
- Jeppesen, K. K. (2019). The role of auditing in the fight against corruption. *The British Accounting Review*, 51(5), 100798.
- Joshi, P. L. (2020). Determinants Affecting Internal Audit Effectiveness. *EMAJ: Emerging Markets Journal*, 10(2), 10-17.
- Joshi, P. L., & Marthandan, G. (2023). Influencing factors for internal audit effectiveness in the Indian context. *Afro-Asian Journal of Finance and Accounting*, 13(2), 253-276.
- Kadim, J. R., Sabti, Y. M., Ali, G., Khair, W. A., & Shaltag, K. H. (2021). The Impact of the Professional Competence of the Internal Auditor in Improving the Quality

- of Accounting: Analytical Study. *South Asian Journal of Social Sciences and Humanities*, 2(5), 85-99.
- Khalid, A. A., & Sarea, A. M. (2021). Independence and effectiveness in internal Shariah audit with insights drawn from Islamic agency theory. *International Journal of Law and Management*, 63(3), 332-346.
- Khalid, A. A., Hussin, M. Y. M., Sarea, A., & Shaarani, A. Z. B. M. (2021). Development of Effective Internal Shariah Audit Framework using Islamic Agency Theory. *Asian Economic and Financial Review*, 11(8), 682.
- Kirui, E. K. (2022). *Effect of audit committee characteristics on audit effectiveness in the county government of Kericho, Kenya* (Doctoral dissertation, university of kabianga).
- Kukuiah, V. K. (2019). *Factors affecting internal audit effectiveness in the Ghanaian public sector in Central Region* (Doctoral dissertation, University of Cape Coast).
- Kurniawati, F., & Karunia, A. P. (2018). Determinant Independence and Objectivity of Internal Auditors in Indonesian Government Organizations. *KnE Social Sciences*, 411-432.
- Kusumah, W. R., & Pranoto, T. (2023). The Influence of Independence, Objectivity, Proficiency and Professional Accuracy of Internal Auditors on Fraud Prevention in X Hospital. *JASa (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi)*, 7(2), 259-267.
- Lamm, K. W., Lamm, A. J., & Edgar, D. (2020). Scale development and validation: Methodology and recommendations. *Journal of International Agricultural and Extension Education*, 27(2), 24-35.
- Lee, G. (2019). *Internal audit competence strategies for compliance with the Sarbanes-Oxley act of 2002* (Doctoral dissertation, Walden University).
- Lihuan, Z. (2022). Factors Affecting Internal Audit Effectiveness: A Research in China SMES. *Academic Journal of Business & Management*, 4(15), 118-124.
- Lowe, N. K. (2019). What is a pilot study?. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 48(2), 117-118.
- Lubis, N. W. (2022). Resource based view (RBV) in improving company strategic capacity. *Research Horizon*, 2(6), 587-596.

- Madawaki, A., Ahmi, A., & Ahmad, H. N. (2022). Internal audit functions, Internal audit independence quality and moderating effect of senior management support. *Meditari accountancy research*, 30(2), 342-372.
- Matheka, B. K. (2021). *Effect of Commercial Bank Failures on Financial Internal audit effectiveness of Tier 111 Banks in Kenya* (Doctoral dissertation, University of Nairobi).
- Menaty, V., & Zaman, E. (2020). Internal audit effectiveness. *Empirical Research in Accounting*, 9(4), 247-270.
- Menza, S. K., Aga, A., & Jerene, W. (2019). Determinants of internal audit effectiveness (IAE) in the Ethiopian public enterprise, case of Southern region. *Journal of Resources Development and Management*, 52(1), 22-36.
- Mertsola, E. (2022). A case study: The role, independence, and objectivity of internal auditors in a Finnish public company.
- Miller, D. (2019). The resource-based view of the firm. In *Oxford Research Encyclopedia of Business and Management*.
- Mohammed, Z. M., & Mohammed, M. M. (2021). The Impact of Top Management Support and Regulatory Regime on Effectiveness of Internal Audit Function. *ADRRJ Journal of Arts and Social Sciences*, 18(3 (6) October-December), 96-121.
- Mohapatra, P., & MV, N. K. (2021). Accounting Scandal at Tesco. *IUP Journal of Accounting Research & Audit Practices*, 20(4).
- Mpakaniye, D. J. P. (2022). Effect of competency internal audit staff on internal audit effectiveness in Rwanda's public organization. *Available at SSRN 4074112*.
- Musah, A. (2018). Determinants of internal audit effectiveness in State-Owned Enterprises (SOEs) in Ghana. In *Determinants of internal audit effectiveness in state-owned enterprises (SOEs) in Ghana: Musah, Alhassan*.
- Muslikan; Masengi, Evi Elvira; Dilapanga, Abdul Rahman. (2022). The Influence of Objectivity and Independence on Internal Audit Internal audit effectiveness at the Regional Supervision Inspectorate of the North Sulawesi Regional Police. *Technium Soc. Sci. J.*, 38, 39.
- Mustapha, M., & Dahiru, U. (2022). Depoliticization, Organizational Contingencies and Internal Audit Effectiveness: A case of Local Government Councils in Nigeria. *International Journal of Intellectual Discourse*, 5(1), 341-367.

- Mwanza, O. (2022). *The effectiveness of internal auditing in the public sector in Zambia* (Doctoral dissertation, The University of Zambia).
- Mwelase, M., & Chummun, B. Z. (2022). Measuring Factors Influencing Internal Auditing Effectiveness in eThekweni Municipality in South Africa. *Journal of Public Administration*, 57(3), 558-572.
- Nagano, H. (2019). The growth of knowledge through the resource-based view. *Management Decision*, 58(1), 98-111.
- Njagi, M. (2023). Independence of Internal Auditors: Significance, Guidelines, and Influencing Factors. *East African Finance Journal*, 2(1), 56-63.
- Nugraha, N., Yazid, H., & Bastian, E. (2022). The Effect Of Risk-Based Internal Audit Planning And Competence On Audit Quality With The Internal Auditor Paradigm As A Moderating Variable. *Jurnal Ekonomi*, 11(01), 678-688.
- Nugroho, Y., Uzliawati, L., & Taqi, M. (2021). The Effect of Audit Quality, Internal Audit Size, Auditor Competency and Management Support on the Effectiveness of Internal Audit. *Asian Journal of Social Science and Management Technology*, 3(4), 48-60.
- Nyaga, K., Kiragu, D. N. U., & Riro, G. K. (2018). Influence of internal audit independence on internal audit effectiveness in the kirinyaga county government, Kenya.
- Nyerere, J. K. (2022). *Risk-Based Internal Audit, Corporate Governance and Financial Internal audit effectiveness of Deposit taking Cooperative Societies in Nairobi Metropolis, Kenya* (Doctoral dissertation, University of Embu).
- Omundi, R. M. (2023). *The Adequacy of Kenya's bank resolution framework in managing bank failures* (Doctoral dissertation, Strathmore University).
- Pelser, T., Mensah, O. A., & Ngwenya, B. (2020). Investigating the impact of antecedents of internal audit function effectiveness at a private university in Ghana. *Acta Commercii*, 20(1), 1-11.
- Pham, D. C., & Nguyen, T. T. (2021). Factors affecting the internal audit effectiveness of steel enterprises in Vietnam. *The Journal of Asian Finance, Economics and Business*, 8(1), 271-283.
- Pham, D. C., & Nguyen, T. T. (2021). Factors affecting the internal audit effectiveness of steel enterprises in Vietnam. *The Journal of Asian Finance, Economics and Business*, 8(1), 271-283.

- Poltak, H., Sudarma, M., & Purwanti, L. (2019). The determinants of the effectiveness of internal audits with management support as the moderating variable. *International Journal of Multicultural and Multireligious Understanding*, 6(1), 33-51.
- Przybylska, J. M., & Kańduła, S. (2019). In Search of the Theory of Internal Audit. *Torun Business Review*, 18(3), 1-16.
- Raimo, N., Vitolla, F., Marrone, A., & Rubino, M. (2021). Do audit committee attributes influence integrated reporting quality? An agency theory viewpoint. *Business Strategy and the Environment*, 30(1), 522-534.
- Ratmono, D., & Darsono, D. (2022). Effectiveness of internal audit in local governments: The moderating role of internal and external auditors' relations. *Accounting*, 8(2), 177-186.
- Saidin, S. Z. (2022). The relationship between risk management and internal audit effectiveness at local government level. *Journal of Social and Development Sciences*, 3(12), 198.
- Saputra, K. R., Winarningsih, S., & Puspitasari, E. (2020). The effect of top management support on the effectiveness of public sector internal audit in indonesia with competence and independence as intervening variables. *MBIA*, 19(3), 243-257.
- Setyaningrum, D., & Kuntadi, C. (2019). The effects of competence, independence, audit work, and communication on the effectiveness of internal audit. *Journal of Economics, Business, & Accountancy Ventura*, 22(1), 39-47.
- Sheriff, S. (2021). Evaluating Management Support to the Internal Audit System in Bo District Council, Sierra Leone. *Open Journal of Business and Management*, 9(4), 1603-1618.
- Shofia, M. A. (2020). The Influence of Competence and Communication on Employee Internal audit effectiveness of Internal Audit Work Unit At PT Bank Mandiri (Persero), Tbk With Mediation Variable Job Satisfaction. *JURNAL DINAMIKA MANAJEMEN DAN BISNIS*, 3(1), 54-77.
- Shohihah, I., Djamhuri, A., & Purwanti, L. (2018). Determinants of internal audit effectiveness and implication on corruption prevention in the religious ministry. *Wacana Journal of Social and Humanity Studies*, 21(1).
- Shonhadji, N., & Maulidi, A. (2022). Is it suitable for your local governments? A contingency theory-based analysis on the use of Internal audit competence in thwarting white-collar crime. *Journal of Financial Crime*, 29(2), 770-786.

- Singh, K. S. D., Ravindran, S., Ganesan, Y., Abbasi, G. A., & Haron, H. (2021). Antecedents and internal audit quality implications of internal audit effectiveness. *International Journal of Business Science & Applied Management (IJBSAM)*, 16(2), 1-21.
- Siregar, F. A. H., Rizki, I. H., Siregar, H. D. U., Lubis, N. O., & Siregar, D. A. S. (2022). Analysis Of The Effect Of Competence And Integrity On The Quality Of Internal Audit Results In Medan City. *Journal of Economics, Finance And Management Studies*, 5(08), 2137-2144.
- Solomon, W. (2019). Factors affecting internal audit effectiveness: in the case of ethiopian private commercial banks.
- Suh, I., Masli, A., & Sweeney, J. T. (2021). Do management training grounds reduce internal auditor objectivity and external auditor reliance? The influence of family firms. *Journal of Business Ethics*, 173, 205-227.
- Sulanjana, R. A., & Puspitasari, R. (2018). The Effect Of Competence And Independence Of Internal Auditors Toward Internal Audit Internal audit effectiveness Quality At Head Office Of BJB Syariah Bank. *South East Asia Journal of Contemporary Business, Economics and Law*, 16(2).
- Suleiman, Z. A., Hamad, A. U., & Yussuf, S. (2021). Factors influences the effectiveness of internal audit services at Ministry of Finance and Planning in Zanzibar. *Research Journal of Finance and Accounting*, 12(2), 8-13.
- Ta, T. T., & Doan, T. N. (2022). Factors affecting internal audit effectiveness: empirical evidence from Vietnam. *International journal of financial studies*, 10(2), 37.
- Tamimi, O. (2021). The role of internal audit in risk management from the perspective of risk managers in the banking sector. *Australasian Accounting, Business and Finance Journal*, 15(2), 114-129.
- Temesgen, A., & Estifanos, L. (2018). Determinants of internal audit effectiveness: Evidence from Gurage Zone. *Research Journal of Finance and Accounting*, 9(19), 15-25.
- Waguthii, J. M. (2021). *Application of Big Data Technology in the Construction Industry in Kenya: a Case Study of Nairobi County* (Doctoral dissertation, University of Nairobi).
- Wairange, L. R. (2019). *The Link Between Corporate Governance Failure and The Collapse of Major Private Companies in Kenya* (Doctoral dissertation, University of Nairobi).

- Were, B. W., Warui, F., & Kariuki, G. (2023). effects of risk-based internal audit practices on financial internal audit effectiveness of insurance firms listed at the Nairobi Securities Exchange, Kenya. *International Academic Journal of Economics and Finance*, 3 (8), 380, 408, 2.
- Widagdo, A. K. (2018). The Effect of Internal Auditor Independence on Effectiveness of Government Internal Audit: Group Cohesiveness As An Intervening Variable (Case Study At The Regional Inspectorates At Java Island). *Jurnal Akuntansi*, 22(1).
- Yanti, D., Sari, D. M., Ghazali, R., Djuniar, L., & Astrina, F. (2022). Management support, competence, organizational culture and professional ethics on internal audit effectiveness. *International Journal of Multidisciplinary Research and Analysis*, 5(04).
- Yegon, L. C. (2021). *Extent of adoption of corporate governance principles by Deposit-Taking SACCOs in Kenya and the effect on financial internal audit effectiveness* (Doctoral dissertation, Strathmore University).
- Yudianto, I., Mulyani, S., Fahmi, M., & Winarningsih, S. (2021). The influence of enterprise risk management implementation and internal audit quality on universities' internal audit effectiveness in Indonesia. *Journal of Southwest Jiaotong University*, 56(2).
- Yusof, N. A. Z. M., Haron, H., Ismail, I., & Chye, O. H. (2019). Independence of internal audit unit influence the internal audit capability of Malaysian public sector organizations. *KnE Social Sciences*, 1230-1253.
- Zahra, S. A. (2021). The resource-based view, resourcefulness, and resource management in startup firms: A proposed research agenda. *Journal of Management*, 47(7), 1841-1860.

APPENDICES

APPENDIX I: INTRODUCTORY LETTER

Dear respondent,

I am a Student at Masinde Muliro University of Science and Technology conducting a study on ‘*Antecedents Of Internal Audit Effectiveness Among Deposit Taking Saccos In Western Kenya*’.

Your contribution in providing necessary information will be highly welcome.

Thank you in advance,

Yours faithfully,

Achola John

APPENDIX II: RESEARCH QUESTIONNAIRE

SECTION I. BACKGROUND INFORMATION

1. What is your age? Below 25years [] 25-34 years [] 35-44 years

45-54 years [] Above 55years []

2. What is your highest level of education?

Secondary education [] Certificate []

Diploma [] Bachelor's degree [] Masters Degree []

Others vb) If other, please explain

3. How long have you worked for this Sacco?

Below 1 year [] 1-5 years [] 6-10 years []

11-15 years [] Over 15years []

Please indicate on scale of 1 to 5 whether you Strongly Agree (SA), Agree (A), Fairly Agree (FA), disagree (D) or strongly disagree (SD) to the following statements relating to financial internal audit effectiveness.

SECTION II

	Management Support	SA	A	NS	D	SD
1	Senior management supports internal audit to perform its duties and responsibilities.					

2	Management takes timely corrective action based on internal audit recommendations.					
3	The response to internal audit reports by the senior management is reasonable					
4	Management supports IA by providing training in order to improve their skill and update with the field.					
5	Management take timely corrective action based on internal audit recommendations					
6	Senior management is aware of internal audit's needs/ basic resources					
7	Internal audit department has sufficient staff to successfully carry out its responsibilities					
8	There is management commitment to strengthen internal audit division					
9	Senior management supports internal audit to perform its duties and responsibilities.					
10	The management uses the recommendations, criticisms and information provided by internal auditor for decision making.					

	Internal Audit Independence	SA	A	NS	D	SD
1	Internal audit staff assignments are rotated periodically					

2	Internal audit staff are not requested to perform non-audit functions					
3	Internal Auditor has free and unrestricted access to all operations, personnel, assets and transaction records					
4	Internal auditors feel free to include any audit findings in their audit reports.					
5	Internal audit is free from intervention in performing its duties					
6	Internal audit staff is sufficiently independent in performing their professional obligations and duties					
7	Internal audit staff does not assess specific operations for which they were previously responsible					
8	Internal audit staff has free access to all information, departments and employees in the organization					
9	Internal auditors feel free to include any audit finding in their audit work and directly report to responsible body					
10	Internal audit provides reports to the board of directors (audit committee)					

	Internal Audit Competence	SA	A	S	D	SD
1	Internal auditors have adequate professional knowledge on the overall activities of the department.					
2	Internal auditors are proficient in planning on risk-based Internal auditing					
3	Internal auditors are capable in techniques on control assessment and risk analysis					
4	Internal auditors undertake continuous professional development training per annual.					
5	Internal audit obtains a sufficient budget to successfully carry out its duties.					
6	Internal auditors have a deep professional knowledge on the overall activities of the department.					
7	The audit department or division has progressed in terms of appropriately qualified or professional staff.					
8	Internal auditors are proactive (controlling a situation rather than just responding).					
9	Internal auditors attend educational seminars for continuous training					

10	There is communication between internal auditors and auditees					
	Internal Audit Risk Management	SA	A	S	D	SD
1	Internal audit assesses that risk responses are appropriate and align with the Sacco's risk appetite.					
2	Internal audit evaluates the potential for the occurrence of fraud and how the organization manages fraud risk					
3	There is consideration of risk assessment in the detection of errors					
4	Risk identification and management is a responsibility of all employees of the organization					
5	Risk is analyzed, level is identified by the impact/likelihood e.g. high, medium, low.					
6	Risk Based audit Annual plans are done by the Management					
7	In the organization, risk assessment is a continuous and permanent process.					
8	Risk matrix is available and shows degrees of likelihood and impact and plots risk scores.					
9	Implementation of strategies agreed upon aimed at reducing risk factors annually after discussion with management					
10	Risk monitoring is carried out to identify errors in Internal audit independence					

SECTION III: Internal Audit Effectiveness

	Internal Audit Effectiveness	SA	A	S	D	SD
1	Internal audit is performed in accordance with the IIA Standards (ISPPIA)					
2	Internal audit makes appropriate recommendations for improving the organizational processes					
3	Internal audit develops appropriate annual audit plans					
4	Internal audit assesses that organizational missions are consistent with organizational objectives					
5	Internal audit improves organizational productivity					
6	Internal audit reviews the effectiveness and efficiency of operations and programs					
7	Internal audit communicates timely the engagement results					
8	Internal audit establishes a follow-up process to ensure that corrective actions have been effectively implemented					
9	Internal audit evaluates and improves the effectiveness of risk management and governance process					
10	Internal audit reviews the reliability and integrity of financial information					

THANKS FOR PARTICIPATING

APPENDIX III: RESPONDENTS PER SACCO

	Internal Auditors	Accountants	Finance Officers	Chief Executive Officers	Total
Invest and Grow Sacco	4	3	3	1	11
Wevasity Sacco	3	3	2	1	9
Afya Sacco	3	3	2	1	9
Police Sacco	3	3	2	1	9
Ukulima Sacco	3	3	2	1	9
Mwalimu National Sacco	3	3	2	1	9
Kussco sacco	2	3	2	1	8
Mudete Sacco	1	3	2	1	7
Vihiga County Farmers Sacco	1	3	1	1	6
Vihiga County Sacco	1	3	2	1	7
Faridi Sacco	3	3	2	1	9
Elimu Sacco	3	3	2	1	9
Ng'arisha Sacco	3	3	2	1	9
Metropolitant Sacco	3	3	2	1	9
Stawisha Sacco	3	3	2	1	9
Total	39	45	30	15	129

**APPENDIX IV: SACCOS PER COUNTY IN WESTERN KENYA AND THEIR
CLASSIFICATION**

	COUNTY	Tier
Invest and Grow Sacco	Kakamega	Large
Wevasity Sacco	Kakamega	Small
Afya Sacco	Kakamega	Large
Police Sacco	Kakamega	Large
Ukulima Sacco	Kakamega	Large
Mwalimu National Sacco	Kakamega	Large
Kussco sacco	Kakamega	Medium
Mudete Sacco	Vihiga	Small
Vihiga County Farmers Sacco	Vihiga	Small
Vihiga County Sacco	Vihiga	Small
Faridi Sacco	Busia	Medium
Elimu Sacco	Busia	Medium
Ng'arisha Sacco	Bungoma	Medium
Metropolitant Sacco	Bungoma	Large
Stawisha Sacco	Bungoma	Small